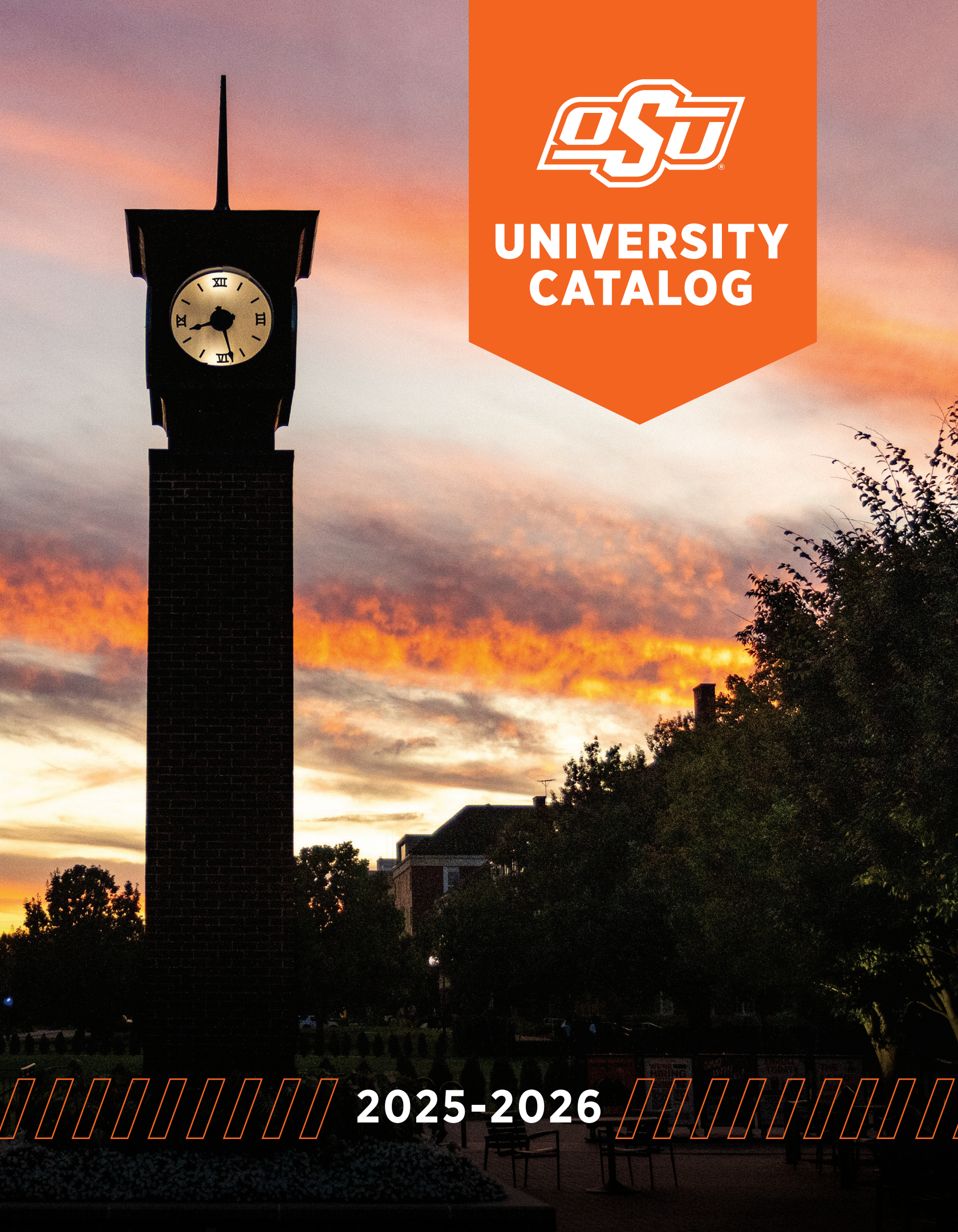

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2025-2026

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HOME

Welcome to Oklahoma State University!

Our land-grant mission sets us apart as a nationally leading, top-tier research institution. We put our students front and center in everything we do and work to improve the lives of all Oklahomans while delivering a quality education to set you up for success. For the fourth straight year, OSU has had no increase in tuition or mandatory academic fees, making a brighter future accessible to anyone who dreams of earning a degree.

As a member of the Cowboy family, you are part of a creative, innovative and collaborative learning environment that will prepare you to use your knowledge and hands-on experience to make a difference in the world. We live by the Cowboy Code: doing what's right, even when it's hard; finishing what we start; and dreaming big. It's a foundation for success during your time at OSU and beyond.

With more than 500 undergraduate and graduate degree programs, as well as certificates and professional degree programs in medicine and veterinary medicine, OSU provides outstanding choice and value at a comprehensive research university. And, our veterinary medicine program is poised to become a leader in the nation. OSU recently received a historic $250 million state funding appropriation to support the construction of a new, state-of-the-art veterinary teaching hospital. This critical investment — the largest state appropriation in university history — combined with $78 million allocated in 2023, marks a significant step forward in advancing the future of veterinary education, food security and public health in Oklahoma.

The depth and breadth of our programs and the global impact of our efforts are significant. But what separates OSU graduates from those of other institutions is their character and determination to make a difference in their communities, across our state and around the world.

Once again, welcome to Oklahoma State University. Go Pokes!

Dr. Jim Hess, Oklahoma State University President

CATALOG INTRODUCTION

An Oklahoma State University education is about providing access, choices and value.

It's about stewarding the timeless responsibility that comes with being a land-grant institution. Through teaching, research and Extension, OSU is committed to raising successive generations of servant-leaders, engaging as vital members of their communities; bringing research and new knowledge to bear to prepare students for the world they will enter; and extending critical knowledge and expertise to meet society's most pressing problems — the "Grand Challenges" facing civilization.

OSU is forging a deliberate path to become the preeminent land-grant institution with a worldwide reach. Our faculty includes leaders in their fields and an array of nationally published authors and scientists. OSU provides world-class education to all students — full-time, part-time, adult and non-traditional.

Our investment in teaching and research creates an educational experience that is intellectually challenging and has practical value far beyond the classroom. OSU students learn hands-on while working with world-class experts, scientists, artists and intellectuals on cutting-edge research that is changing our lives.

OSU has been recognized for its educational value by *U.S. News & World Report, Forbes, Princeton Review* and *Kiplinger*. The *Wall Street Journal* listed OSU among the nation's top schools for best preparing graduates for success, as determined by corporate recruiters. OSU was internationally recognized by QS Stars (https://news.okstate.edu/articles/communications/2024/osu_receives_top_marks_in_qs_stars_international_ratings.html) for educational value as well.

OSU also is home to nearly 1,400 valedictorians, and a long list of Rhodes, Truman, Marshall, Udall, Goldwater, Gates, Phi Kappa Phi and other national scholars. OSU allows students to stretch their learning with its nationally-recognized Honors College, offers unique opportunities for undergraduate research and provides advising and academic support services through its University College.

With more choices, top faculty and cutting-edge resources all at a great value, OSU is the place for a world-class education.

OSU is accredited by the Higher Learning Commission (HLC). Programs within the colleges also hold area accreditation.

Higher Learning Commission (HLC)
30 N. LaSalle Street, Suite 2400
Chicago, IL 60602
800.621.7440
https://www.hlcommission.org/

Oklahoma State University, in compliance with Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, and Title IX of the Education Amendments of 1972 (Higher Education Act), the Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, genetic information, sex, age, sexual orientation, gender identity, religion, disability, or status as a veteran, in any of its policies, practices or procedures. This provision includes, but is not limited to admissions, employment, financial aid and educational services. The Director of Equal Opportunity, 201 General Academic Building, OSU, Stillwater, OK 74078-1035, Phone 405-744-1156, email: eeo@okstate.edu has been designated to handle inquiries regarding non-discrimination policies. Any person (student, faculty or staff) who believes that discriminatory practices have been engaged in based on gender may discuss their concerns and file informal or formal complaints of possible violations of Title IX with OSU's Title IX Coordinator, (405) 744-1156.

ABOUT THE UNIVERSITY

The History

Oklahoma State University (https://go.okstate.edu/about-osu/history.html) was founded as Oklahoma Agricultural and Mechanical College on Dec. 25, 1890, just 20 months after the Land Run of 1889. When the first students assembled for class on Dec. 14, 1891, no buildings, books or curriculum existed.

Land-grant universities were made possible by the Morrill Acts of 1862, 1890 and 1994. They first granted federally controlled land to states to establish "land-grant" colleges. They were designed to be a departure from the typical liberal arts curriculum and a response to the industrial revolution. Land-grant colleges were designed to improve the world through education and research in agriculture, military tactics and mechanical arts.

In 1894, two-and-a-half years after classes began in local churches, 144 students moved into the first academic building — later named Old Central and still located on the southeast corner of campus, housing the Honors College today. In 1896, Oklahoma A&M held its first commencement with six male graduates.

The Smith-Lever Act of 1914 created a cooperative extension service associated with each land-grant institution. OSU has 77 Extension offices (https://extension.okstate.edu/), one in each county. They provide practical, research-based knowledge for improving lives and communities.

On July 1, 1957, Oklahoma A&M College became Oklahoma State University. Technical branches were established in Okmulgee in 1946 and in Oklahoma City in 1961. In 1990, these two technical branches were renamed OSU-Okmulgee (https://osuit.edu/) and OSU-Oklahoma City (https://osuokc.edu/); and in 2008, OSU-Okmulgee (https://osuit.edu/) was renamed OSU Institute of Technology (https://osuit.edu/). OSU-Tulsa (https://tulsa.okstate.edu/) was formed in 1999 from a consortium of universities that were originally established in 1982. In July 1988, the Oklahoma College of Osteopathic Medicine and Surgery (in Tulsa) became the OSU College of Osteopathic Medicine. In 2001, it became part of the OSU Center for Health Sciences (https://medicine.okstate.edu/), which also has an affiliation with its primary teaching hospital — OSU Medical Center (https://osumc.com/). Oklahoma State University College of Osteopathic Medicine and the Cherokee Nation established the nation's first tribally affiliated college of medicine (https://news.okstate.edu/articles/communications/2020/osu-ceremony-opens-first-tribally-affiliated-medical-school.html/) in Tahlequah, Oklahoma, which opened in August 2020.

OSU's main campus is located in Stillwater, a north-central Oklahoma community with a population of around 50,000. Stillwater is approximately 60 miles from the Tulsa and Oklahoma City metropolitan areas and is readily accessible by interstate highway and air. Stillwater Regional Airport added daily air service to Dallas in 2016.

The university has an enrollment of more than 34,500 students on five campuses. It offers bachelor's, master's and doctoral degrees in many fields, as well as Doctor of Osteopathic Medicine and Doctor of Veterinary Medicine degrees. Specialist in Education degrees are also offered in select fields.

Although OSU is a large, comprehensive university, its size does not minimize the personal attention each student receives. The individual is more than just a number at OSU. Students can count on personal attention in a friendly environment.

As a comprehensive land-grant institution, OSU offers many distinct advantages: nearly four million volumes in the library's collection; modern research laboratories and equipment; excellent physical education, recreation and student union facilities; more than 500 student organizations; nationally recognized residence hall programs; outstanding cultural and athletic events; and 45 nationally affiliated fraternities and sororities that provide a stimulating educational and social environment.

The Strategy

Through teaching, research and Extension, the land-grant institutions steward a timeless responsibility: to raise successive generations of servant-leaders; to engage as vital members of their communities; to bring research and new knowledge to bear to prepare students for the world they will enter; and to extend critical knowledge and expertise to meet society's most pressing problems — the "Grand Challenges" facing civilization.

In October 2022, OSU released its strategy (https://go.okstate.edu/about-osu/leadership/president/strategic-plan/) to become the nation's preeminent land-grant institution. The plan is deeply rooted in the university's land-grant mission to serve the public good. Included in the plan are eight policy imperatives that include, among others, decreasing student debt through scholarships, new enrollment goals and a commitment to creating graduates who exhibit the four competencies of 1) professional preparedness, 2) engaged citizenship, 3) ethical leadership and 4) personal responsibility. The strategy also lays out a plan to capitalize on the intersection of the university's research strengths with society's greatest needs.

Student Profile

OSU has a diverse student body. Students come from Oklahoma, across the nation and around the world. Of OSU's more than 36,100 students, approximately 73% are on the Stillwater campus, including students at the College of Veterinary Medicine (https://vetmed.okstate.edu/). The remaining student population is spread over OSU-Oklahoma City (https://osuokc.edu/), OSU Institute of Technology (https://osuit.edu/), OSU-Tulsa (https://tulsa.okstate.edu/) and the OSU Center for Health Sciences (https://medicine.okstate.edu/).

More than 75% of the undergraduates enrolled are Oklahoma residents. International undergraduates consist of 1% and are from 58foreign countries. The total international enrollment is from 98 countries. Of the undergraduate population, 53% are women. U.S. minorities make up approximately 36% of the undergraduate student body. The six-year graduation rate of full-time, degree-seeking undergraduate students is 66% for OSU-Stillwater and OSU-Tulsa.

There are 6,236 graduate students throughout the OSU system. Almost 4,000 of those students are on the Stillwater campus. Of the graduate students on all campuses, 40% are Oklahoma residents, 40% are out-of-state residents and 20% are from foreign countries. Females make up 53% and U.S. minorities make up 31.2% of the graduate student body.

An annual report regarding gender equity in OSU's athletic programs is available upon request from the Athletic Department (https://okstate.com/).

Research

Research has been one of the three essential components of the OSU mission since the University's inception. Research adds richness, depth and broader impact to the other mission components of teaching and outreach. In the sciences and engineering, basic research advances the frontiers of disciplinary knowledge; whereas, applied research improves quality of life and economic prosperity by bringing new products, processes and medicines to the marketplace. Research and creative innovations within the arts and humanities enhance how human beings view and understand the world we live in.

OSU's faculty and students are engaged in research across the full spectrum of human endeavor and inquiry, including areas of state and national priority. In addition to disciplinary research in virtually all academic units on campus, OSU is strong in several areas of interdisciplinary research. Researchers involved in next generation sustainable energy span agricultural innovation, nutrition, engineering, toxicology, geosciences, economics and the social/behavioral sciences. OneHealth is an interdisciplinary framework that recognizes the interconnections between human health, animal health and a healthy planet. OSU OneHealth includes research as diverse as pandemic preparedness, veterinary medicine, ecology, psychology, exercise science and bioengineering—as well as basic research in the bench sciences. Unmanned systems research (including unmanned aircraft) brings researchers from several engineering disciplines together with experts in production agriculture, computer science, information systems and aviation education to create platforms, sensors, data management tools and new applications for this burgeoning field. Such interdisciplinary research strengths are enhanced by big data solutions, including OSU's high performance computing facilities and advanced analytical expertise. Other strength areas include transportation, rural renewal, wheat and sod science, and factors associated with the opioid crisis.

The Division of the Vice President for Research administers research across the OSU System. The division is comprised of the following units:

The *Research Administration* office (research.okstate.edu (http://research.okstate.edu/)) is responsible for research governance, operations and special programs including the OSU Researchers' Reception, the Regents Distinguished Research Awards, the President's Fellows Faculty Research Award, the Otto S. Cox Graduate Fellowships for Genetics Research and the Niblack Research Scholars program. Other areas administered by the office include complaints of research misconduct, core facilities and facilities renovation/development programs, University cost-share and University research start-up programs.

The *Office of University Research Compliance* (research.okstate.edu/research-compliance (https://research.okstate.edu/research-compliance/)) ensures OSU follows federal, state and University regulations that set forth requirements for certain kinds of research. Working through faculty committees, it oversees research involving human subjects, animal models, radiological materials, certain hazardous agents and recombinant DNA.

Central Sponsored Programs Administration (https://research.okstate.edu/faculty-resources/central-sponsored-programs-admin.html) is the document control center for the routing of all proposals and awards throughout the University. It provides support to faculty and staff (through information about funding opportunities and training seminars); manages campus-wide electric research administration systems (e.g., proposal submission, funding notification, and administration of awards); manages limited submission competitions; and posts online research expenditures. Additionally, contracting specialists provide guidance for compliance with federal export control regulations that govern the conduct of research and export of specific technologies.

The Division of the Vice President for Research is also home to several core research facilities. The *High Performance Computing Center* (hpcc.okstate.edu (https://hpcc.okstate.edu)) provides supercomputing services and computational science expertise that enables faculty, staff and students to conduct a wide range of focused research, development and test activities. Its main objective is to facilitate research and aid in educational advancement by integrating state-of-the-art high performance computing technology for multidisciplinary units across the OSU campus and throughout Oklahoma. The *Oklahoma State University Microscopy Laboratory* (research.okstate.edu/microscopy (https://research.okstate.edu/microscopy/)) is a multi-user instrumentation facility for materials research spanning from nanotechnology to biology and medicine. Analytical capabilities include microscopy via electron beams, force probes and visible light, as well as nanomechanical and nanotribological probes. OSU's *Animal Resources* (research.okstate.edu/animalresources (https://research.okstate.edu/animalresources/)) handles the centralized housing and husbandry of animals utilized in research, and overseas the veterinary care of all OSU animals used for teaching testing and research.

Research Centers and Facilities

OSU has multiple research centers and facilities across the Stillwater campus and throughout the state.

The NSF *Established Program to Stimulate Competitive Research (EPSCoR)* program leads a statewide initiative that conducts cutting edge research while building Oklahoma's talent pipeline in STEM fields (http://okepscor.org).

The *Oklahoma Center for Microbiome Research* (https://cas.okstate.edu/microbiology_and_molecular_genetics/oklahoma_center_for_microbiome_research/) has a thematic, multidisciplinary focus on microbiome science and fosters the careers of up-and-coming scientists in the microbiome field.

The *Oklahoma Center for Respiratory and Infectious Diseases* (ocrid.okstate.edu (http://ocrid.okstate.edu/)) works toward understanding and treatment of a major health problem in the U.S.

The *Center for Integrative Research on Childhood Adversity* (circaok.com (http://circaok.com/)), a collaboration between OSU and the OSU Center for Health Sciences in Tulsa, is establishing the linkages between childhood difficulties and later physical health.

The *Oklahoma Aerospace Institute for Research and Education (*https://go.okstate.edu/aerospace/) brings together researchers from all over the university and the state to advance unmanned aerial systems and related technologies and applications.

The *Robert M. Kerr Food & Agricultural Products Center* (food.okstate.edu (https://food.okstate.edu/)) provides large and small businesses, producers and entrepreneurs access to faculty and staff with expertise in business and technical disciplines. The FAPC seeks to develop successful value-added enterprises in Oklahoma.

The *Oklahoma Water Resources Center* (water.okstate.edu (https://water.okstate.edu/)) aims to understand and manage Oklahoma water resources and resolve Oklahoma water issues by conducting research and disseminating the resulting knowledge. With expertise in a variety of

disciplines, more than 80 faculty members across campus are involved in the Center's activities.

The *Helmerich Advanced Technology Research Center* (tulsa.okstate.edu/helmerich (https://tulsa.okstate.edu/helmerich/)) is a state-of-the-art research, development, testing and education center located on the OSU-Tulsa campus. Faculty from mechanical engineering, electrical engineering and materials science and engineering work collaboratively there on research and graduate education.

The *Henry Bellmon Research Center* houses six of OSU's leading interdisciplinary research programs: synthetic chemistry, biodiversity, biophysics, photonics, bioforensics and biogeophysics. These are but a few of OSU's research centers and facilities; for other examples and more detailed information, visit https://research.okstate.edu/centers-and-institutes.html

Professional and Continuing Education

As a land-grant institution, Oklahoma State University embraces a distinct responsibility to provide accessible and impactful educational opportunities to the citizens of Oklahoma and beyond.

With a longstanding tradition of excellence in education and community engagement, OSU's land-grant heritage is reflected in its commitment to serving diverse populations through professional and continuing education. This legacy continues today through hundreds of programs designed to address real-world challenges and empower individuals and communities to thrive—locally, nationally, and globally.

Every academic college at OSU contributes to this mission, offering a wide range of outreach and professional development initiatives. These include credit and non-credit professional development courses and micro-credentials to support individual continuing education, technical assistance to support business and economic development, and lifelong learning opportunities for individuals of all ages from early childhood to older adulthood. Visit OSU Professional and Continuing Education (https://continuingeducation.okstate.edu/).

Office of Individual Study

The Oklahoma State University Office of Individual Study offers online, self-paced undergraduate courses in multiple time frames including 8 weeks, 16 weeks, and 12 months. Individual Study courses offer college credit and are ideal for individuals with busy schedules who desire a more flexible, self-paced format such as those working full-time, juggling family responsibilities, military members, and incarcerated individuals. Individual study students do not need to be admitted to OSU and includes in-state, out of state, and out of country students.

OSU students can also enroll in Individual Study courses. Browse OSU's class schedule for "independent study." Yearlong courses have open start dates so students may begin a course anytime. Courses are delivered through the OSU learning management system, Canvas; however, students who do not have Internet access can participate in courses using print-based materials.

Call 405-744-6390 or visit is.okstate.edu (http://is.okstate.edu) for class descriptions, costs, and enrollment information. For information on all OSU online courses and degrees, visit osuonline.okstate.edu (http://osuonline.okstate.edu), call 405-744-1015, or email osuonline@okstate.edu.

Accreditation

Oklahoma State University is accredited by the Higher Learning Commission (HLC), the accrediting body recognized by the U.S. Department of Education and the Council for Higher Education Accreditation to accredit degree-granting colleges and universities for the Midwest region of the United States. Accreditation is the process by which colleges, universities, and academic programs demonstrate their quality.

At Oklahoma State University, various programs within the academic colleges hold specific area accreditation and are subject to review periodically based on the associated accrediting body. Area accreditation serves as a quality assurance process under which an external body evaluates services and operations of educational programs to determine if applicable standards are met. OSU holds more than 70 area accreditations across numerous fields of study. Below is the list of currently held area accreditations as reported by each college.

College of Arts and Sciences

Communication Sciences and Disorders is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology. Media and Strategic Communications is accredited by the Accrediting Council on Education in Journalism and Mass Communication. Multimedia Journalism is accredited by the Accrediting Council on Education in Journalism and Mass Communication. Sports Media is accredited by the Accrediting Council on Education in Journalism and Mass Communication. B.M. Education, B.M. Performance, B.A. Music, B.S. Music Industry, M.M. Applied Performance, M.M. Conducting, and M.M. Applied Multiple Woodwinds are accredited by the National Association of Schools of Music (NASM). PhD in Clinical Psychology is accredited by the American Psychological Association (APA). PhD in Clinical Psychology is accredited by the Psychological Clinical Science Accreditation System (PCSAS). BA in Theatre is accredited by the National Association of Schools of Theatre.

College of Engineering and Architecture Technology

Aerospace Engineering is accredited by the Engineering Accreditation Commission of ABET. Architectural Engineering is accredited by the Oklahoma State Department of Vocational Technical Education. Architecture is accredited by the Oklahoma State Department of Education and the National Architectural Accrediting Board (NAAB). Biosystems and Agricultural Engineering are accredited by the Engineering Accreditation Commission of ABET. Chemical Engineering is accredited by the Engineering Accreditation Commission of ABET. Civil and Environmental Engineering are accredited by the Engineering Accreditation Commission of ABET. Computer Engineering is accredited by the Engineering Accreditation Commission of ABET. Construction Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET. Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET. Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET. Fire Protection & Safety Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET. Industrial Engineering & Management is accredited by the Engineering Accreditation Commission of ABET. Mechanical Engineering is accredited by the Engineering Accreditation Commission of ABET. Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET.

College of Education and Human Sciences

Apparel Design & Apparel Design and Technology is accredited by the Textile and Apparel Programs Accreditation Commission (TAPAC). Interior Design is accredited by the Council for Interior Design Accreditation. Fashion Design and Merchandising is accredited by the Textile and Apparel Programs Accreditation Commission (TAPAC). Bachelor of Science in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND, Formerly CADE). Master of Science in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND, Formerly CADE). PhD in School Psychology is accredited by the American Psychological Association. PhD in School Psychology is accredited by the National Association of School Psychologists. EDS is accredited by the National Association of School Psychologists; 2026. Family and Consumer Sciences is accredited by the CAEP. Family and Consumer Sciences Teachers is accredited by the OEQA. Early Childhood Education is accredited by the OEQA. Master of Science in Marriage and Family Therapy is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). The Child Development Lab School is accredited by the National Association for the Education of Young Children (NAEYC). The Child Development Laboratory is accredited by the Licensed by the Oklahoma Department of Human Services (DHS). Bachelor of Science in Health Education and Promotion is accredited by the Council on Education in Public Health (CEPH). Bachelor of Science in Nursing is accredited by the Commission on Collegiate Nursing Education (CCNE). Master in Counseling is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Counseling Psychology is accredited by the American Psychological Association (APA). Therapeutic Recreation is accredited by the Committee on Accreditation of Recreational Therapy Education (CARTE) through the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Education Leadership - School Administration is accredited by the ELCC (though will have transitioned to NELP Standards for the next report). School Administration is accredited by the ELCC (though will have transitioned to NELP Standards for the next report). Building Level Leadership is accredited by the CAEP. District Level Leadership is accredited by the CAEP. M.S. Educational Technology - School Library Media is accredited by the OEQA. Elementary Education is accredited by the CAEP. BS in Elementary Education is accredited by the Formerly ACEI; and has transitioned to OEQA, Oklahoma's state accreditor. Secondary Education - Art Education is accredited by the Office of Educational Quality and Accountability (OEQA). B.S. in Secondary Education - English is accredited by the NCTE. Secondary Education - Foreign Language Education is accredited by the ACTFL. B.S. in Secondary Education - Social Studies is accredited by the NCSS. Secondary Mathematics Ed. (B.S. Content Area Degree, plus Secondary Teaching Cert. option) is accredited by the NCTM. Secondary Science Ed. (B.S. Content Area Degree, Secondary Teaching Cert. options) is accredited by the NSTA (for this last report; will transition to OEQA). M.S. in Teaching, Learning & Leadership: Reading & Literacy is accredited by the OEQA. Aerospace Administration and Operations is accredited by the Federal Aviation Administration. Applied Exercise Science is accredited by the Council on Accreditation of Strength and Conditioning Education.

Ferguson College of Agriculture

Agriculture Education is accredited by the Council for Accreditation of Educator Preparation (CAEP). Biochemistry and Molecular Biology are accredited by the American Society for Biochemistry and Molecular Biology. Landscape Architecture is accredited by the Landscape Architectural Accreditation Board. Natural Resource Ecology and Management - Forestry Option is accredited by the Society of American Foresters.

Spears School of Business

Accounting is accredited by the Federation of Schools of Accountancy. Accounting, Economics (previously Economics and Legal Studies in Business), Entrepreneurship, Finance, Management, Management Sciences & Information Systems, Marketing, Hospitality and Tourism Management, Accounting, Systems, and Auditing, Accounting, Business Administration, Business Analytics and Data Science, Economics is accredited, Finance Essentials, Property And Real Estate Management, Quantitative Finance, Travel And Tourism Management, Business Essentials, Business, Business Sustainability, Nonprofit Management, Sustainable Business Management, Human Resource Management, International Business, Business Analytics and Data Science (previously Marketing Analytics), Sales and Service Excellence, Data Analytics, Information Assurance, Health Analytics, Business Administration: Executive Research, General Business is accredited, Entrepreneurship, Casino & Gaming Management, Hospitality and Tourism Analytics, Finance & Investment Banking, are all accredited by the Association to Advance Collegiate Schools of Business (AACSB).

College of Veterinary Medicine

The College of Veterinary Medicine is accredited by the American Veterinary Medical Association's Council on Education. The Center for Veterinary Health Sciences is accredited by the American Veterinary Medical Association (AVMA) Council on Education (COE). The Oklahoma Animal Disease Diagnostic Laboratory is accredited by the American Association of Veterinary Laboratory Diagnosticians. The Boren Veterinary Medical Teaching Hospital is accredited by the American Animal Hospital Association.

General Education Area Designations

A course is qualified to be part of the general education curriculum if it meets the needs of students in all disciplines without requiring extensive specialized skills and satisfies all the criteria for a specific general education area. The requirements for each general education area are as follows:

COWBOY COMPASS OUTCOMES-BASED GENERAL EDUCATION DESIGNATIONS

(Revised 5/1/2024)

QUANTITATIVE THOUGHT & LOGICAL REASONING – (Q) - 3 credit hours

Purpose:

Courses with the *Quantitative Thought & Logical Reasoning* designation equip students with the knowledge and skills necessary to identify and apply mathematical concepts in real-world contexts. These courses foster critical thinking, logical reasoning, and problem solving. By honing these skills, students are better prepared to make informed decisions, navigate numerical data, and appreciate the importance and practicality of mathematics in their personal and professional lives.

Learning outcomes:

1. Analyze relationships between varying quantities and recognize patterns in information.
2. Apply quantitative, geometric, or logical models to analyze and solve problems.

3. Form inferences using logical systems and mathematical information and communicate them effectively.
4. Accurately interpret and translate between appropriate multiple representations (symbolic, visual, graphical, numerical, or verbal) of logical or mathematical information.
5. Relate abstract generalizations of concepts to concrete instances of these concepts and generalize multiple instances of a phenomenon into broad observations.

REASONING IN THE NATURAL SCIENCES – (N) - 6 credit hours, including one course with a designation of *Laboratory-Based Inquiry* – (L)

Purpose:

Courses with the *Reasoning in the Natural Sciences* designation provide essential insights into the fundamental principles underlying the physical and biological processes that govern our world. By acquiring a solid foundation in the natural sciences, students gain the ability to critically analyze the methods employed in scientific inquiry, comprehend the knowledge derived from these disciplines, and realize the interconnectedness of science and society.

Learning outcomes:

1. Demonstrate a fundamental understanding in a particular branch of the natural sciences.
2. Assess evidence, interpretations, outcomes, and solutions within the framework of natural sciences.
3. Identify and address broad, far-reaching problems through scientific techniques.
4. Describe how human involvement in physical and biological processes affects our world.

LABORATORY-BASED INQUIRY – (L) - One course needed in conjunction with the *Reasoning in the Natural Sciences* requirement.

Purpose:

Courses with the *Laboratory-Based Inquiry* designation emphasize processes of scientific investigation using real-world applications in the natural sciences. Students engage in concrete experiences meant to strengthen skills of observation, analysis, and interpretation. Interacting with content in this way allows students to connect theoretical constructs with practical experiences and develops an ability to evaluate the credibility of others' scientific findings.

Learning outcomes:

1. Apply the principles and techniques of scientific inquiry, e.g., formulating hypotheses, conducting experiments, making observations, analyzing data, and interpreting results.
2. Communicate procedures, results and conclusions of one's scientific inquiry.
3. Evaluate the credibility of Scientific information.

UNDERSTANDING HUMANITIES - HUMAN HERITAGE AND CULTURES – (H) - 6 credit hours

Purpose:

Courses with the *Understanding Humanities - Human Heritage and Cultures* designation emphasize the interpretation, analysis, and expression of ideas, values, and aesthetics that have played a significant role in shaping individuals and societies. These courses encourage students to analyze and interpret events and artifacts, while considering the diverse range of human ideas, cultural values, and aesthetics across various contexts. They often draw from disciplines such as history, philosophy, anthropology, archeology, cultural geography, modern and ancient languages, and cultural studies. In addition, they may pertain to music, art, drama, and dance courses that *are not* studio-based performance classes.

Learning outcomes:

1. Synthesize relationships of ideas, cultural values, or aesthetics to historic and contemporary cultures.
2. Assess how ideas, events, texts, artifacts or arts shape diverse individual identities.
3. Analyze and interpret events and artifacts, and consider the diverse range of human ideas, cultural values, and aesthetics across various contexts.
4. Enhance critical thinking, connect sources, and apply disciplinary concepts to generate coherent arguments related to the human experience.

EXPLORING SOCIETY AND HUMAN BEHAVIOR – (S) - 3 credit hours

Purpose:

Courses with the *Exploring Society and Human Behavior* designation allow students to explain society and human behavior in social and/or physical environments through use of theoretical and methodological constructs. These courses are based on empirical observation of human behavior rather than the study of aesthetics, ideas or cultural values. In these courses, students critically analyze generalizations about society, explore theoretical structures, and realize the role of empirical observation in social and behavioral structures.

Learning outcomes:

1. Interpret fundamental concepts of the social/behavioral sciences.
2. Critically analyze generalizations about society and explore theoretical structures.
3. Describe and/or practice empirical observation using quantitative and qualitative methods in the social and behavioral sciences.
4. Compare and contrast dimensions of economic, social, or cultural diversity.
5. Examine cultural, social, and historic dynamics that influence individuals and groups.
6. Apply social and behavioral science concepts to the practice of ethical and engaged citizenship to facilitate adaptation in a constantly changing society.

GLOBAL CULTURAL COMPETENCY – (G) - 3 Credit hours. Courses can be paired with another GE designation but may not be paired with the D designation.

Purpose:

Courses with the *Global Cultural Competency* designation are designed to cultivate critical thinking skills, cultural competency, and empathy necessary for navigating and appreciating diverse perspectives, identities, and experiences outside the United States. These courses equip students with the basic skills needed to successfully navigate a multicultural world, to reflect on historic legacies and present-day* dynamics, and provide a foundation for identifying and assessing

potential avenues for positive change, growth, and development at a global level.

Learning outcomes:

1. Identify international dimensions of political, economic, ideological, and ethical perspectives and relate these to the complex systems of oppression, political ideology, globalization, or other similar dynamics.
2. Analyze the complex issues, problems, or obstacles that affect societies, economies, or the environment worldwide to determine the difficulties and possibilities that exist on a global scale.
3. Develop knowledge, skills, and attitudes that enable individuals to navigate cultural differences, communicate respectfully, and collaborate across cultural boundaries.
4. Apply disciplinary and/or interdisciplinary theories and knowledge to comprehend diverse global social, cultural, and political perspectives
5. Apply concepts of global cultural competency to the practice of ethical leadership and engaged citizenship.
6. Identify the ways in which global cultural competency may emerge in student's lives and careers through dimensions of personal responsibility and professional preparedness.
7. Engage in respectful communication with others, regardless of one's perspective.

* Present-day is defined as approximately the last 5 years. A minimum of 25% of course content must fit the present-day definition.

DIVERSITY – (D) - 3 Credit hours. Courses can be paired with another GE designation but may not be paired with the G designation.

Purpose:

Courses with the *Diversity* designation are designed to cultivate critical thinking skills, cultural competency, and empathy necessary for navigating and appreciating diverse perspectives, identities, and experiences in the United States. Students will explore the ways in which social identities shape our human experience and reflect on historic legacies and present-day* dyanamics to develop the skills required to engage in respectful dialogue and collaboration with individuals from diverse backgrounds.

Learning Outcomes:

1. Reflect on identity through the examination of one or more underrepresented groups in the United States related to socially salient categories, which may include, but are not limited to, race, ethnicity, religion, social class, gender, age, disability, and sexual orientation.
2. Examine the ways that underrepresented groups define and express themselves and the context in which these developments occurred.
3. Critically analyze theories and systems of cultural, societal, political, or economic power.
4. Apply disciplinary and/or interdisciplinary theories and knowledge to comprehend diverse social, cultural, and political perspectives.
5. Apply concepts of diversity to the practice of ethical leadership and engaged citizenship.
6. Identify the ways in which issues of diversity may emerge in students' lives and careers through dimensions of personal responsibility and professional preparedness.
7. Engage in respectful communication with others, regardless of one's perspective.

* Present-day is defined as approximately the last 5 years. A minimum of 25% of course content must fit the present-day definition.

EXPRESSION THROUGH FINE ARTS AND LANGUAGES – (F) – OPTIONAL General Education courses to reach GE elective total.

Purpose:

Courses with the *Expression through Fine Arts and Languages* designation provide students with opportunities to apply experiential methods in order to analyze and understand the meaning and value of fine and language arts. These courses encourage students to create, participate in, and interact with content through visual or performing arts*, creative writing†, and foreign languages.

Learning outcomes:

1. Interpret and apply the techniques and theoretical approaches to communication, performance, and/or production in visual arts, performing arts, creative writing, and foreign languages.
2. Evaluate how individual and collective identities are expressed and shaped through the visual arts, performing arts, creative writing, or foreign languages.
3. Examine cultural, social, and historic dynamics that influence visual, performing, and linguistic arts.
4. Demonstrate knowledge and skill through artistic production, performance, and/or practical application.

*Studio or performance dimensions must be less than 50% of course content.

† Creative writing, a form of artistic expression, draws on the imagination to convey meaning through the use of imagery, narrative, and drama. This is in contrast to analytic or pragmatic forms of writing. This genre includes poetry, fiction (novels, short stories), scripts, screenplays, and creative non-fiction.

WRITTEN, ORAL & VISUAL COMMUNICATION COMPETENCIES

Learning outcomes and requirements

(Revised 10/1/2024)

The exchange of ideas through written, oral, and visual communications is critical to students' success. A student who is an effective communicator can appropriately and productively engage with various academic, professional, and public audiences. The integrative concepts of written, oral, and visual communication develop through courses that instruct students in the principles and practices of these communication competencies. Skills in these areas will also serve the individual throughout their lives, including in career, community, civic society, and social and leisure activities. Courses with communication competency attributes must have communication-related content and assignments worth a minimum of 20% of the overall grade.#Courses with multiple competencies must meet the minimum percentage for each competency. Throughout, lists of examples of possible types of projects are for illustrative purposes and not exhaustive.

Courses including a Written (W), Oral (O) or Visual (V) competency will be given a corresponding attribute in Banner. Requirements for written, oral, and visual communication competencies will pertain to H, S, D, G, and F

courses. For Q, N, and L courses, students will demonstrate their ability to communicate in a manner appropriate to the discipline.

Written Communication:

Courses with the *Written Communication* attribute are expected to help students become more confident and competent writers. These courses strengthen students' expressive communication and develop skills in critical thinking, analytical reasoning, and rhetoric, building on the skills learned in basic composition classes by preparing students to develop written texts of varying lengths and styles that communicate appropriately and effectively across various settings. By acquiring the ability to reason and write in multiple ways, students strengthen their critical thinking and deepen communication skills critical to their personal and professional lives.

Learning Outcomes:

1. Develop foundational knowledge about the writing process and best practices.
2. Analyze different types of texts and audiences, and tailor one's writing accordingly.
3. Craft clear and coherent arguments, supported by evidence and logic.
4. Express ideas in an engaging manner.
5. Produce writing that reflects a recursive process of revision across multiple drafts.
6. Use sources in ethical ways to support written content.

Requirements:

1. Writing assignments must be weighted in the grading scheme such that students are discouraged from skipping the assignment(s) (i.e., the total of all writing assignments must be worth at least 20% of the overall grade).
2. Written communication assignments must be tied to the purpose/requirements of the designation.
3. Written communication must form the basis of at least 20% of course assignments, including the critique and development of written materials. The minimum required number of pages may be fulfilled in one or multiple assignment(s).#Informal writing assignments (like journals or class notes) and group projects will not count toward the writing minimum.# Multiple drafts of the same work cannot be counted twice in the cumulative word count/page minimum.
4. Instructors must provide timely and actionable feedback that students can incorporate in subsequent written communication assignments within the course.#A notation that instructor feedback will be provided must be specified in the syllabus.
5. Lower-division courses must include a minimum of 1000 words (four pages) of written assignments emphasizing the writing process.
6. Upper-division courses must include a minimum of 2000 words (eight pages) of written assignments emphasizing the writing process.#One writing assignment must be at least 1000 words (4 pages) in length.
7. Written communication assignments should allow students to demonstrate their ability to communicate in a manner appropriate to the discipline.

Oral Communication:

Courses with the *Oral Communication* attribute teach students to effectively interpret, compose, and present information, ideas, and perspectives to various audiences, including the public. By honing their skills in presentations, interviews, active debates, critiques, and performances, students broaden their critical thinking and communication skills needed to function in an increasingly interconnected world. Students are also better prepared for success in the workplace given that employers list proficiency in oral presentation and communication as top-rated skills.

Learning Outcomes:

1. Develop foundational knowledge about the oral communication process and best practices.
2. Listen to, interpret, and critically evaluate public communication from diverse perspectives.
3. Apply theories of communication to make ethical rhetorical choices that achieve selected communicative purposes (such as informing, persuading, commemorating).
4. Develop and deliver audience-centered presentations and adapt to the needs of distinct speaking situations.
5. Employ verbal and nonverbal techniques for effective delivery in an oral presentation.
6. Ethically integrate credible and relevant supporting materials to craft cohesive messages.

Requirements:

1. Oral communication assignments must be weighted in the grading scheme such that students are discouraged from skipping the assignments. (i.e., the total of all oral communication assignments must be worth at least 20% of the overall grade).
2. Oral communication assignments must be tied to the purpose/requirements of the designation.
3. Oral communication must form the basis of at least 20% of course assignments, including the critique and development of oral presentation materials. Presentations may be live or recorded. Informal and group presentations will not count toward the oral communication minimum.##Multiple drafts of the same work cannot be counted twice in the cumulative minimum.
4. Instructors must provide timely and actionable feedback that students can incorporate in subsequent oral communication assignments within the course.#A notation that instructor feedback will be provided must be specified in the syllabus.
5. Lower-division courses must include a minimum of ten minutes of planned or scripted presentations, which must occur through two or more assignments.
6. Upper-division courses must include a minimum of fifteen minutes of planned or scripted presentations which must occur through two or more assignments
7. Students must apply their learning by engaging in presentation critiques that include criteria such as rapport with the audience, voice, projection, and audibility; clarity of purpose; originality of ideas; organization; persuasiveness of evidence; and ability to respond to questions.
8. Oral communication assignments must allow students to demonstrate their ability to communicate in a manner appropriate to the discipline.

Visual Communication

Courses with the *Visual Communication* attribute will instruct students in the analysis, structure, theories, and principles of visual images to provide students with the analytical skills they need to communicate through visual means and be thoughtful consumers of visual materials.

Courses enable students to understand how still and moving images, art, architecture, and illustrations inform and persuade people. Students will be able to analyze the contextual, cultural, ethical, aesthetic, intellectual, and technical components involved in producing and using visual materials. By preparing students to analyze and communicate through visual media, these courses strengthen the critical thinking, visual literacy, and communication skills needed in an increasingly digital landscape.

Learning Outcomes:

1. Develop foundational knowledge about the visual communication process and best practices.
2. Apply appropriate visual literacy vocabulary/terminology as it relates to course media.
3. Recognize the role of textual information in providing access to image content and identify types of textual information and metadata typically associated with images (such as captions or other descriptions, personal or user-generated tags, creator information, repository names, title keywords, descriptions of visual content)
4. Use appropriate tools to accurately portray visual images.
5. Produce visual media and analyze its role in the presentation of ideas or concepts (such as the following non-exhaustive list of examples: photographs, sculpture, video, films, new media, presentations, or papers)

Requirements:

1. Visual communication assignments must be weighted in the grading scheme such that students are discouraged from skipping the assignments. (i.e., the total of all visual communication assignments must be worth at least 20% of the overall grade).
2. Visual communication assignments must be tied to the purpose/requirements of the designation.
3. Visual communication must form the basis of at least 20% of course assignments, including the critique and development of visual materials. The minimum visual communication requirements may be fulfilled in one or multiple assignment(s). Informal and group projects will not count toward the visual communication minimum.#Multiple drafts of the same work cannot be counted twice in the cumulative minimum.
4. Instructors must provide timely and actionable feedback that students can incorporate in subsequent visual communication assignments within the course.#A notation that instructor feedback will be provided must be specified in the syllabus.
5. Lower-division courses must facilitate the production of visual content through one or more visual communication projects (such as an infographic, visual analytics, a website, story mapping, a short video, a research poster, virtual reality, art or design pieces, set or costume design).
6. Upper-division courses must facilitate the production of visual content through two or more visual communication projects (such as an infographic, visual analytics, a website, story mapping, a short video, a research poster, virtual reality, art or design pieces, set or costume design).
7. Visual communication assignments must allow students to demonstrate their ability to communicate in a manner appropriate to the discipline.

Athletic Programs Mission

Oklahoma State University is committed to providing regionally and nationally competitive athletics programs as an integral part of the overall educational mission of the University. Sponsored programs comply with the highest recognized standards of the institution and the athletic governing bodies. Intercollegiate athletics operate in harmony with the University's stated mission and are committed to the intellectual, cultural, physical and social development of the student-athletes as individuals. Opportunities for student-athletes are provided without discrimination. OSU is a member of the highly competitive Big 12 Conference.

Facilities

The OSU campus is one of exceptional beauty with its many modified Georgian-style buildings set against immaculate landscaping. The main campus encompasses more than 200 permanent buildings on 840 acres. Notable facilities include the Edmon Low Library (https://go.okstate.edu/about-osu/traditions/edmon-low-library.html), one of the largest in the Southwest, and Old Central, the university's first permanent structure on campus. Lovingly restored, Old Central continues to hold court on the southeast side of campus and houses the Honors College (https://honors.okstate.edu/).

OSU boasts an extremely comprehensive Student Union (https://union.okstate.edu/). Thanks to a $63 million facelift, the Student Union offers greatly enhanced facilities and services to students. Campus Life (https://campuslife.okstate.edu/) is prominently located on the second floor and dining options have been enhanced and expanded. The Student Services Center in the Union houses the Bursar (https://bursar.okstate.edu/), Registrar (https://registrar.okstate.edu/), Hargis Leadership Institute (https://leadershipinstitute.okstate.edu/), Campus Life (https://campuslife.okstate.edu/), Scholarship and Financial Aid (https://go.okstate.edu/scholarships-financial-aid/), University College Advising (https://universitycollege.okstate.edu/uca/), Undergraduate Admissions (https://go.okstate.edu/admissions/) and New Student Orientation and Enrollment (https://firstyearsuccess.okstate.edu/) in one convenient location. In 2016, the Student Union's Atherton Hotel (https://www.athertonhotelatosu.com/) received a major renovation that enlarged its rooms and upgraded its accommodations.

In 2006, OSU launched its campus Master Plan 2025, calling for more than $850 million in projects to improve facilities in four areas: academics, student life, infrastructure and athletics. The historic, far-reaching plan continues to transform the OSU campus.

Newest Additions

Agricultural Hall (https://agriculture.okstate.edu/about/new-frontiers/) is a $115.2 million, 184,000 square-foot building that houses the Ferguson College of Agriculture (https://agriculture.okstate.edu/). The new home was occupied in the fall 2024 semester and strengthened OSU Agriculture's research, teaching and Extension missions while addressing two key challenges: attracting and retaining scientific leaders and equipping collaborative teams with state-of-the-art laboratory and field facilities. It has redefined what is possible for faculty, students and the industries and communities that depend on their research. It has prioritized experiential teaching, flexible research and a strong sense of community through strategically designed spaces. There will be expanded space and presence for student organizations, including the Student Success Center, which coordinates on-campus career fairs and other activities with more than 60 student organizations. The facility was created with modern teaching methods in mind, utilizing flexible lab

spaces to serve multiple disciplines. It has changed and modernized how research is conducted and how scientific subjects are taught. Featuring numerous interactive classrooms to harness students' energy and the excitement of innovation, Agricultural Hall is a space that fosters learning and collaboration.

The $28.9 million renovation and expansion for Engineering South (https://ceat.okstate.edu/mae/engineering-south.html) was completed in July 2023 in time for the 2023 fall semester. This historic structure has been the home for various departments within the College of Engineering, Architecture and Technology (https://ceat.okstate.edu/) since 1939. All four floors of the interior were gutted and redesigned to propel Engineering South into the 21st century. The Electrical and Computer Engineering (ECE) department occupies the second floor and the Mechanical Aerospace Engineering (MAE) department occupies the third floor. Upgrades to the public first floor are department-focused spaces with a goal to create a strong ECE and MAE community, encourage and support our teaching and research missions, brand ECE and MAE as leaders in high-tech innovation, and attract the brightest students and faculty. The fourth floor provides an exciting opportunity for CEAT innovation and growth, including an open design studio for collaborative senior design, a design and innovation laboratory and seminar room for laboratory intensive courses, additional office space for teaching and research assistants, and gathering and study spaces for ECE and MAE students and student organizations. The Zink Center for Competitive Innovation and the new 207-seat Chickasaw STEM auditorium will provide CEAT with new programming and innovative spaces to elevate student learning and success.

The $22 million Central Market Place (https://news.okstate.edu/articles/communications/2023/construction_to_begin_on_osus_new_central_market_place_to_replace_kerr-drummond_complex.html) opened in fall 2024. This new 31,000-square-foot facility has the capacity to house nearly 300 guests and features food concepts in Byte, Caribou Coffee, 405 Deli and 1890 Market, all in a modern, open seating atmosphere that includes a covered patio area with views of campus activities. Byte includes a "ghost kitchen" concept that serves a rotating menu of diverse offerings. This can be thought of as a virtual restaurant operating as a digital storefront. The guest places their order via an app or kiosk and the food is prepared in the back of the house and delivered through a locker-style system. Caribou Coffee is like its counterpart in the Student Union. 405 Deli, a self-branded sandwich concept, offers a Stillwater-inspired menu consisting of gourmet sandwiches and salads. The 1890 Market is a rebranding of OSU's largest on-campus convenience store, previously operating in Kerr-Drummond. As with all University Dining Services campus convenience stores, the 1890 Market houses a selection of groceries, grab-and-go items, snacks and necessities. This convenience store has increased shopping space providing an expansive selection of products.

The new $100 million Human Performance and Nutrition Research Institute (HPNRI) (https://go.okstate.edu/hpnri/) will be constructed on the Stillwater campus and will develop preventative therapeutic strategies to combat obesity and chronic diseases. The institute will be the first of its kind — a university-based center focused on human performance and nutrition science for optimizing health and performance. The institute will leverage research and expertise from several departments and colleges across the OSU system, including the College of Education and Human Sciences, Ferguson College of Agriculture, the College of Engineering, Architecture and Technology, Robert M. Kerr Food and Agriculture Products Center, College of Osteopathic Medicine and more.

The new Transportation Operation Facility will be a $16 million replacement facility for the existing Motor Pool at the northeast corner of Farm Road and Western. The new facility, which is being funded by grants, will be located on Lakeview Road next to the Clean Energy Fuel station. The facility will make it possible to service all OSU vehicles with 12 large service bays, bus and vehicle automatic wash bays, space for fleet vehicle rentals, a fueling station and offices. The project will be completed in the fall of 2025.

Research

As a land-grant university, Oklahoma State University is a leader in research of all kinds with the facilities to make that possible. ENDEAVOR (https://ceat.okstate.edu/endeavor/) opened in fall 2018. The 72,000-square-foot lab in the College of Engineering, Architecture and Technology (https://ceat.okstate.edu/) is the only one of its kind in the U.S. and is dedicated to immersive undergraduate learning experiences. It's the glass-and-steel embodiment of a new era in undergraduate engineering learning, where walls no longer exist between disciplines, and individual expertise is melded into interdisciplinary teams. Donors paid for more than half of the $35 million cost to build it.

The impressive Henry Bellmon Research Center (https://news.okstate.edu/articles/communications/2011/osu-dedicates-henry-bellmon-research-center.html) opened in 2010. The $70 million building, the largest project in the state's Capitol Bond Program, provides state-of-the-art laboratory space for a wide range of disciplines and encourages collaborative research. In spring 2015, OSU opened the Bert Cooper Engineering Laboratory (https://go.okstate.edu/undergraduate-academics/majors/civil-engineering.html) for structures and materials engineering with new geothermal systems for energy efficiency.

The grand opening of EXCELSIOR (https://news.okstate.edu/articles/engineering-architecture-technology/2019/ceat_celebrates_grand_opening_of_excelsior.html), an unmanned systems innovation laboratory, was celebrated on Nov. 2, 2019. The new lab houses multidisciplinary research and education programs for the Unmanned Systems Research Institute in the College of Engineering, Architecture and Technology. The facility offers a recognized emphasis in instruction and research in unmanned aircraft systems and supplies hands-on analysis, design, construction and flight testing of UAS platforms. Students focus on projects that include flight testing and operations. Research opportunities include UAS design, aerodynamics, flight path management and airspace integration, sense and avoid, controls, structures, aeroacoustics, propulsion, communications and operations, and sensors and payloads.

The Boone Pickens School of Geology (https://geology.okstate.edu/) dedicated the new Gary F. Stewart Core Research Facility in November 2019. The facility serves as a "one-stop shop" for treatment, storage and analysis of core samples (cylindrical rock samples obtained by drilling), a needed service in the region. The building includes a grinding and polishing lab, thin section preparation, an area designated for coloring, porosity and permeability, significant layout and review space, as well as office space and a conference room. More than a repository, the facility houses active research. It is located in the northwest section of campus, near the corner of McElroy Road and North Willis Street.

Academics

Providing the quality facilities for a foundation of success for our students is an overarching goal at Oklahoma State University. From smaller renovations and updated buildings to constructing new facilities, academic buildings are well cared for as part of the overall building plan.

The McKnight Center for the Performing Arts is a world-class epicenter for the arts, attracting celebrated national and international programs featuring notable productions and artists. The New York Philharmonic opened McKnight's 2019-2020 season. The center will allow the university and the center's supporters to express — and be recognized for — their passion for the arts on a global stage. The 93,000-square-foot facility opened in 2019 along the southwest corner of University Avenue and Hester Street, boasting 1,100 seats in the Performance Hall and 250 in the Recital Hall. The 1,000-seat outdoor plaza features a massive, high-definition screen that can show events taking place inside the Performing Arts Center or telecasts from around the world.

The Michael and Anne Greenwood School of Music (https://music.okstate.edu/) is a premier music education facility that harnesses the synergy of research, talent and incomparable hands-on learning experiences available only at OSU. The building opened in spring 2021, thanks to lead donors Michael and Anne Greenwood. The Greenwood School of Music's proximity to The McKnight Center for the Performing Arts (https://mcknightcenter.org/Online/default.asp) will amplify and leverage opportunities, including master classes for students and faculty to interact with world-class musicians. Music laboratories, classrooms and teaching studios will be equipped with the latest technology for high-level studio production.

The new Ray and Linda Booker OSU Flight Center (https://news.okstate.edu/articles/education-health-aviation/2020/osu-announces-new-ray-linda-booker-flight-center.html) is a $6 million replacement facility that will serve as a premier resource for students pursuing degrees in aviation education. The 11,600-square-foot facility opened in spring 2022 and includes private rooms for individual flight debriefings between students and flight instructors. Additional advances to the student learning experience include space for state-of-the-art simulator technology, dispatch space and student common areas.

The Roger J. Panciera Education Center is a new $6 million building at the College of Veterinary Medicine (https://vetmed.okstate.edu/). Its designated classroom facilities have elevated the educational experience for students. The addition includes three flexible classrooms and makes room for specialized training in existing instructional space. The new and enhanced teaching facilities support modern teaching methods and cutting-edge technology critical to the successful recruitment and training of students, faculty and staff.

The Division of Agricultural Sciences and Natural Resources new Greenhouse Learning Center (https://agriculture.okstate.edu/departments-programs/hla/student-resources/greenhouse-learning-center.html) opened in August 2019 and serves students in OSU's Ferguson College of Agriculture in a new facility that will better prepare them to enter the professional workforce. The Greenhouse Learning Center, a $6 million facility, will replace and improve functions of OSU's existing teaching greenhouses that have been in use for decades. Greenleaf Nursery, one of North America's largest wholesale nursery growers and longtime partner and supporter of OSU's horticulture programs, has committed $1 million toward this new project. The Greenhouse Learning Center features six greenhouses, including an isolated entomology greenhouse, and head house, which includes a classroom, office space and plant-preparation area, as well as storage space for soil, equipment and chemicals such as fertilizer and pest-management materials. A large foyer will provide space for student club meetings. It also will house cutting-edge irrigation systems, intense climate and humidity control and other technology standards in today's horticulture industry.

The new home for the Spears School of Business (https://business.okstate.edu/) on Hester Street opened in spring 2018. The $72 million building is unique in design and shape, a "Crescent Masterpiece" that brings all of Spears Business together for now and in the future. Spears Business is designed to promote collaboration and hands-on, experiential learning to best prepare graduates for success in the modern workplace.

The north wing of the Nancy Randolph Davis Building opened in fall 2016 and houses hotel and restaurant, design and other programs. Also in 2016, OSU opened a new veterinary medicine academic center and the Charles and Linda Cline Equine Teaching Center (http://afs.okstate.edu/about/facilities/equine/).

OSU opened several renovated buildings in 2009. Thanks to a gift from the Donald W. Reynolds Foundation, OSU doubled the size of its School of Architecture building. The Psychology Building, built as a women's dormitory in 1933, was renovated to house seven departments from the College of Arts and Sciences. The North Classroom building, funded in part by the state's Higher Education Capital Bond Program, opened on the north side of the Stillwater campus in 2009. The facility offers the latest in teaching technology and features an eco-friendly eatery.

Athletics

One of the most tradition-rich programs in college baseball has a state-of-the-art home. O'Brate Stadium (https://okstate.com/sports/2020/1/29/o-brate-stadium.aspx) features an expansive clubhouse and operations center, including a "training triangle" with an indoor facility, pitching lab and practice infield. The ballpark includes 3,500 permanent seats that can be expanded to 8,000 as needed.

The renovation of the west end of Boone Pickens Stadium (https://okstate.com/sports/2015/6/18/GEN_0618155302.aspx) created one of the premier collegiate football facilities in the country, and there have been several significant enhancements to the fan experience since 2018. The university also completed several athletic projects north of Boone Pickens Stadium. OSU opened the Sherman E. Smith Training Center (https://okstate.com/sports/2015/3/17/GEN_2014010153.aspx) for indoor training and a new outdoor track in 2013. The Michael and Anne Greenwood Tennis Center (https://okstate.com/sports/2015/3/17/GEN_2014010160.aspx) opened in early 2014. The Greenwood Tennis Center features six indoor and 12 outdoor courts and is one of the leading collegiate tennis facilities in the country. It hosted the 2024 NCAA Tennis Championships.

Gallagher-Iba Arena (https://okstate.com/sports/2015/3/17/GEN_2014010157.aspx) continues to be a staple of athletics at OSU. In 2001, the university constructed the new Athletic Center on the site of Gallagher-Iba. The top of the original building was removed, and the Athletic Center was built completely over and around Gallagher-Iba, expanding its seating to approximately 13,600. Historic Gallagher-Iba continues to exist as the arena within the Athletic Center.

Women's soccer plays in the finest on-campus women's soccer-only facility in America. The $20 million Neal Patterson Stadium (https://okstate.com/sports/2015/3/17/GEN_2014010156.aspx) opened in 2018 and is a showcase for college soccer with club seats, plaza and upper bowl gathering areas and a north end zone terrace area and seating designed specifically for OSU students. Team facilities include locker rooms, a soccer-only strength and conditioning center, meeting areas, kitchen facilities, sports medicine areas and equipment rooms.

After undergoing extensive upgrades, the Greiner Family OSU Cross Country Course (https://okstate.com/sports/2015/3/17/GEN_20140101115.aspx) opened in its current form in 2019 when OSU hosted the NCAA Midwest Regional Championship. Since then, the course was selected to host the NCAA Cross Country Championships in 2020 and again in 2022.

Karsten Creek (https://okstate.com/sports/2015/3/17/GEN_2014010154.aspx) Golf Club is consistently ranked as one of the best college golf courses in the country and has hosted two NCAA Division I Golf Championships, most recently in 2018. The facility is in the regular rotation to host NCAA Regional Championships as well.

Life

OSU also has an eye on comfortable and convenient living, ranging from residence halls and transportation to incorporating art into the campus. The university has been on the forefront of replacing outdated residential halls with apartments and suite-style accommodations for nearly two decades. Multiple upgrades have opened, giving on-campus students new opportunities for better living and community within the halls.

The University Commons (https://offcampushousing.okstate.edu/housing/), a traditional-style residence hall, opened for the fall 2015 semester. Located north of the Colvin Center on Hall of Fame Avenue, the facility was enhanced a year later with the nearby North Dining Facility, which features seven distinctive dining choices that offer a focus on healthy, fresh options.

Parking and Transportation (https://parking.okstate.edu/) have also seen significant changes in recent years. The Multimodal Transportation Terminal and 1,100-space Monroe Street Garage opened in the fall of 2009. The facilities provide a central point of contact for the various modes of transportation serving OSU-Stillwater and its branch campuses, as well as the community and surrounding areas. OSU has added two more multilevel parking garages — the Wentz Lane Garage opened on the southwest corner of campus in the spring of 2013, and the Fourth Avenue Garage opened in fall of 2016 adjacent to the McKnight Center for the Performing Arts. OSU has expanded campus bus service for both the Stillwater community and the OSU-Stillwater campus. To reduce energy costs and emissions, OSU converted its entire fleet of campus buses to compressed natural gas in 2010.

From stunning sculptures enlivening the Stillwater campus of OSU to striking landscaping designed to welcome one and all, art is taking its place in the public realm — some of it in America's Brightest Orange. The university has seen the installation of pieces from renowned sculptor Allan Houser (https://news.okstate.edu/articles/communications/2018/allan-houser-sculpture-gift-elevates-osus-public-art-initiative.html); yearlong exhibitions by Bill Barrett (https://news.okstate.edu/articles/communications/2019/mcknight-center-statue-dedication-ceremony-set-for-friday.html); the commemoration of Nancy Randolph Davis (https://news.okstate.edu/articles/communications/2019/osu_honors_civil_rights_pioneer_nancy_randolph_davis.html), the first African-American to attend the university when it was Oklahoma A&M College; and many more. The sculptures co-exist with the brick-and-mortar architectural landscape and integrate art into everyday life. OSU opened its Postal Plaza Gallery in 2014 as the home of the OSU Museum of Art (https://museum.okstate.edu/), showcasing the university's extensive art collection and strengthening its connection to downtown Stillwater.

Infrastructure

OSU completed work on a state-of-the-art Central Plant to replace its inefficient 1940s power plant. The facility reduces OSU's environmental footprint, saves energy costs and improves reliability for the air conditioning and heating systems on the Stillwater campus. The Central Plant features a 60-person classroom and includes a viewing area for education and public outreach.

The first phase of a campuswide electrical upgrade project across campus has also been completed. The project is improving reliability of campus power with the construction of the Power Distribution Center. The PDC connects campus to two independent power sources, both provided by OSU's campus energy partner, OG&E. The project is also replacing aging underground cabling that provides power to campus buildings. When complete, the project will provide capacity for campus growth, improve reliability and renew the life of the campus electrical system for decades to come.

OSU also has a focus on sustainability. In 2013, OSU and Oklahoma Gas and Electric started the Cowboy Wind Farm near Blackwell, Oklahoma. Seventy-five percent of the energy used by OSU is supplied by wind energy from the Cowboy Wind Farm.

OSU is a leader in network computing resources. The university has applied the student technology fee in concert with other resources to create a second-to-none networking system on campus that includes maintenance of large-scale computer laboratories, high speed inter-laboratory connectivity and a virtually seamless interface to the internet across campus.

Improvements continue in the university's outdoor spaces as well, and a landscape architectural master plan (https://fm.okstate.edu/landscape-services/site-files/docs/osu_landscape_master_plan_2012-1.pdf) developed in 2010 is guiding those efforts. Major east-west streets — Hall of Fame Avenue and University Avenue — have been greatly updated, and the university has completed a total redesign and reconstruction of Monroe Street, which runs north-south through the heart of the campus. A series of landscape projects near student residential facilities have occurred in recent years. In the summer of 2005, the Edmon Low Library plaza was restored by installing a new surface on the main upper plaza and the lower area. Completed in 2013, Legacy Walk provides a scenic pedestrian thoroughfare in front of the library, connecting to Hester and Monroe streets. In the fall of 2016, OSU unveiled an impressive Welcome Plaza (https://news.okstate.edu/articles/communications/2018/osu-wins-keep-oklahoma-beautiful-award-welcome-plaza.html) outside the southeast corner of the Student Union. The plaza is an inviting garden area featuring statues of a galloping mare and her foal.

Recent improvements include preparing the iconic Theta Pond for the next 100 years of graduation photos. The large bridge and all three small bridges have been replaced with stone bridges and exquisite landscaping. A sculpture has been added to the southeast side of the pond.

Other facilities of note

Lake Carl Blackwell (https://lake.okstate.edu/), located 8 miles west of Stillwater, is owned by OSU. The area includes approximately 3,350 acres bordering the 3,000-acre lake that provides the water supply for OSU. It is also used for research activities in addition to being a popular regional recreational area.

Academic Enrichment Programs

The Honors College

Keith Garbutt, PhD—Dean
Richard Frohock, PhD—Associate Dean
John Andrews, PhD—Teaching Assistant Professor
Nicole Colston, PhD—Teaching Assistant Professor
Stephanie Miller, PhD—Teaching Associate Professor
Ebonie Hill—Program Manager
Shelly Schauer—Executive Administrative Assistant
Kerri Farnsworth Hoback, PhD—Honors Academic Counselor
Andrea Hearn, PhD—Honors Academic Counselor
Katie Parr—Honors Academic Counselor
Diamond Russell—Honors Academic Counselor
Braxton Sherment—Honors Academic Counselor
Aryanna Tapp—Honors Academic Counselor
Christine Thomas, PhD—Honors Academic Counselor
Bella Vu—Honors Academic Counselor

Oklahoma State University is an active member of the National Collegiate Honors Council and the Great Plains Honors Council. The Honors College Degree is composed of a university-wide General Honors component and specialized upper-division components at the departmental or college levels. The Honors College provides academically talented students with the opportunity to study, conduct research and exchange ideas in an exciting and supportive academic environment. Honors sections are offered in many general education courses, and special honors seminars, add-ons and interdisciplinary honors courses also are available. Honors classes are taught by outstanding faculty members and the classes are small in size to facilitate active student involvement. Additionally, the honors experiential learning program allows students to earn honors credit for meaningful, substantive activities that take them beyond the classroom. A wide range of specified activities (arranged under the headings Academics, Arts, Leadership, Study Away, and Service) can qualify for honors points (equivalent to hours) that can be applied toward the general honors award (GHA), to maintain active status, and/or toward additional hours needed for the honors degree after completion of the GHA and departmental/college awards.

Completion of the requirements for the General Honors Award leads to special designation on the student's OSU transcript, as does completion of the requirements for the Departmental or College Honors Award in the student's academic major. Students who earn a minimum of 30 honors credit hours and complete the Departmental or College Honors Award, as well as the General Honors Award, with a 3.50 cumulative grade-point average at graduation, receive the Honors College Degree, including a special entry on their transcripts and special honors diplomas.

Additional advantages for active participants in The Honors College (minimum of three honors credit hours per semester and nine honors credit hours for each two consecutive semesters for freshmen and sophomores and three honors credit hours per semester for juniors and seniors) include use of The Honors College Study Lounge in Old Central, extended check-out privileges for library materials, priority enrollment for the following semester and an honors housing option in Stout Hall (on a rooms-available basis).

Admission of new freshmen to The Honors College is based on a high school grade-point average of 3.85 or higher OR high school grade-point average of 3.75 and an ACT composite score of 27 (or comparable SAT score). If a student has a high school grade-point average of at least 3.75 and does not have a standardized test score or would like to be considered for Honors College admission without a standardized test score being taken into consideration, the student may petition for admission. The petition form is available when the student applies to The Honors College through the OSU admissions application. Oklahoma State University uses the highest cumulative GPA (weighted or unweighted based on a 4.0 scale) indicated on a student's official high school transcript for admission and scholarship purposes. GPAs not using a 4.0 scale will be converted to a 4.0 scale.

Students other than new freshmen may be admitted to The Honors College on the basis of their graduation/retention grade-point average (7-59 hours earned: 3.30; 60-93 hours earned: 3.40; 94 or more hours earned: 3.50). Transfer freshmen must have completed at least seven college credit hours (not including concurrent enrollment while in high school) to be eligible on the basis of college performance if they do not have the required high school grade-point average and ACT score. In addition to meeting the Honors criteria, admission to The Honors College is contingent on space being available. Please apply as early as possible for the best consideration. Students must be admitted to OSU to apply to The Honors College. Apply online at admissions.okstate.edu/apply (https://admissions.okstate.edu/apply/). There is no additional fee to apply to The Honors College. Honors eligibility is subject to periodic review, so be sure to check with The Honors College for current requirements.

For additional information about The Honors College, interested students should consult the Dean or Program Manager of The Honors College, 101 Old Central or visit https://honors.okstate.edu.

OSU-Tulsa Honors Award

This award was created for OSU-Tulsa students and is ideal for transfer students. In general, the OSU-Tulsa Honors Award requires a minimum of 21 honors credit hours with a grade of "A" or "B", including a 3-hour thesis prep and 3-hour thesis or creative component, with a cumulative graduation/retention GPA of 3.50 or higher. Up to six of the 18 honors credit hours can be transferred in from eligible honors programs. Students who earn the OSU-Tulsa Honors Award receive a certificate and the award is posted to their undergraduate transcripts.

For additional information about the OSU-Tulsa Honors Award, interested students should consult the Program Manager of The Honors College, 101 Old Central or visit https://honors.okstate.edu.

Oklahoma Scholar Leadership Enrichment Program

The Oklahoma Scholar-Leadership Enrichment Program (OSLEP) is a statewide academic program designed to develop scholarship and leadership abilities of outstanding students. Students study in intensive, five-day seminars with a distinguished scholar and are selected from Oklahoma's 21 four-year colleges and universities. OSU's sophomore, junior and senior students with a 3.00 GPA are eligible to apply. OSLEP seminars are taken for three hours of credit. The only cost to students is the tuition—the program provides books and room and board during the seminar. The seminars are graded on a satisfactory/unsatisfactory basis and are transferred to OSU as Pass/Fail. Application should be made as early in the academic year as possible. Further information and application materials may be obtained from The Honors College, 101 Old Central.

Henry Bellmon Office of Scholar Development and Undergraduate Research

Jessica Sullins—Director
Latasha Tasci—Program Manager
Justin Jones—Administrative Assistant

OSU has long been a national leader and innovator in scholar development and, more recently, undergraduate research. For over 25 years, this office has prepared students for the future, whether in competition for prestigious national/international fellowships, admission to top graduate schools, securing highly competitive jobs, or attaining the skills required to grow as a leader. We offer diverse programs, targeted to a wide range of majors, year classifications, and interests to elevate a large number of students' undergraduate experience. This office enhances undergraduate opportunity, encourages student-faculty mentoring, and promotes retention through five primary areas:

1. Scholarship/Fellowship Success
   Outstanding students can compete for a wide range of prestigious national and international scholarships as sophomores, juniors and seniors at OSU, such as the Rhodes, Marshall, Truman, Goldwater, Udall, and others. In addition, there is a host of lesser-known but still valuable opportunities that require students to prepare competitive applications. This office monitors student progress, provides important information, supplies support, and plans courses and activities that can lead to success in these areas. Interested students can contact the office to inquire about opportunities and strategies. Often faculty will nominate candidates who have been performing at a high level academically and displaying other qualities through leadership and community service. Early identification of freshmen and sophomores is especially important for the student to gain the most from these programs.
2. Writers' Workshop
   All successful applicants who are awarded with an OSU institutional nomination for the Truman, Goldwater and Udall scholarships receive an invitation to participate in the annual Burns and Ann Hargis Writers' Workshop at the OSU Doel Reed Center in Taos, New Mexico. Significant scholarship support is provided for each nominee to participate in the workshop, which is held during the last week of students' winter break (early January). OSU faculty and staff from the office join forces to mentor student nominees and to provide feedback on their national application materials.
3. Undergraduate Research
   An incentive for the kinds of students who are considered OSU's best and brightest, the Lew Wentz Foundation and generous donors provide substantial private funding to OSU for several scholarship programs that are managed in this office. The programs include:
   Freshman Research Scholars Program—whereby top entering students can begin their careers with a scholarship for orientation to research ($1,000 each);
   Wentz Research Scholars Program—an opportunity for undergraduates to plan and perform high-level research under the direction of a faculty mentor ($6,000 each);
   Purdie Research Scholars Program—support for undergraduate research in chemistry, geology, or physics ($8,000 each);
   Undergraduate Research Scholar Transcript Designation—Thanks to opportunities in undergraduate research at OSU, those receiving degrees can qualify for the "Undergraduate Research Scholar" designation on the transcript, a valuable achievement. To be considered, the student must:
   a. For a minimum of two semesters, be engaged in and make intellectual contributions to a research or creative project under the direction of a faculty member and/or faculty-led team; and either
   b. Disseminate the results of their research or creative project at a peer-reviewed state, regional or national conference and/or juried artistic venue such as an art exhibition, concert or festival; or
   c. Publish (or accept for publication) their research project in (1) a peer-reviewed research or professional journal, or (2) an OCES fact sheet or similar educational publication, or (3) have used their research as the basis for development and implementation of peer-reviewed educational programming.
4. Cambridge Scholars Program
   This two-week summer program brings up to 22 of OSU's top students to the University of Cambridge, UK for a special short course taught by OSU faculty. The program also provides substantial scholarship support for students.
   The benefits of participating in the Cambridge Scholars Program are numerous, especially if the course topic in a given year is of substantial interest to the student. Additional benefits include gaining a better understanding of British education in general and the education system at Cambridge in particular. Many program alumni have gone on to apply for graduate school at the University and have been successful.
5. Individual and Institutional Recognition
   This office strives to promote scholarship and undergraduate research at the highest level at OSU through the formal recognition of both individual students and faculty, as well as through the promotion of the University as a whole. Visit the Halligan Hall of Scholars in the Student Union atrium for more information.

For further information on all programs, please contact the office at 405-744-7313 or visit academicaffairs.okstate.edu/scholars (https://academicaffairs.okstate.edu/scholars/).

Administration

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OSU System Executive Team

- James "Jim" D. Hess, EdD—President
- Jeanette Mendez, PhD—Provost and Senior Vice President for Academic Affairs
- Johnny Stephens, Pharm.D.—President OSU-CHS, Senior Vice President, Health Affairs, Interim President OSU-Tulsa
- Chris Kuwitsky—Senior Vice President, Administration and Finance
- Chad Weiberg, MBA—Vice President, Athletic Programs/Director, Intercollegiate Athletics
- Kyle Wray, MA—Senior Vice President for System Affairs
- Karen Chen, MBA—Vice President, Enrollment Management
- Jason F. Kirksey, PhD—Vice President, Access and Community Impact
- Jayson L. Lusk, PhD—Vice President, Agricultural Programs and Dean of Ferguson College of Agriculture
- Brent Marsh, PhD—Vice President, Student Affairs
- Kenneth W. Sewell, PhD—Vice President, Research
- Brandee Hancock, JD—Chief Legal Officer

Academic Deans

- Craig Freeman—Dean of the College of Professional Studies and Interim Vice Provost, OSU-Tulsa
- Keith Garbutt, PhD—Dean of the Honors College
- Melinda Cro, PhD—Dean of the College of Arts and Sciences
- Sheila Grant Johnson, MS—Dean of Libraries
- Hanchen Huang, PhD—Dean of the College of Engineering, Architecture and Technology
- Randy Kluver, PhD—Dean of OSU Global and Associate Provost
- Jayson L. Lusk, PhD—Dean of the Ferguson College of Agriculture and Vice President of Agricultural Programs
- Melanie Morgan, PhD—Dean of the Graduate College
- James E. Payne, PhD—Dean of the Spears School of Business
- Jon Pedersen, PhD—Dean of the College of Education and Human Sciences
- Jerry Ritchey, DVM, PhD—Interim Dean of the College of Veterinary Medicine

Selected Administrators (directly responsible for academic and service programs for students):

- Shannon Baker, PhD—Associate Provost of Student Success
- Laurie Beets, MS—Bursar
- Chad Blew—Director of Scholarships and Financial Aid
- Chris Francisco, PhD—Senior Vice Provost of Academic Affairs
- Christine Ormsbee, PhD—Vice Provost and Director of Online Education
- Rita Gearhart Peaster, MS—University Registrar
- Jessica Sullins, MA—Director of Scholar Development and Undergraduate Research
- Ronna Vanderslice, EdD—Vice Provost, OSU System and Provost, OSU Polytech

Undergraduate Admissions

Office of Undergraduate Admissions and Recruitment
Campus Address and Phone:
Address: 219 Student Union, Stillwater, OK 74078-1035
Phone: 405-744-5358 or 1-800-233-5019 ext. 1
Website: admissions.okstate.edu (http://admissions.okstate.edu)
E-mail: admissions@okstate.edu

Application Procedure

- **When to Apply.** The application for undergraduate admission at Oklahoma State University is available beginning July 1 for the following calendar year's spring, summer and fall terms. Freshmen may apply once they have completed their junior year in high school and have an official six-semester transcript. Oklahoma State University's scholarship deadlines are:
  - Freshman Scholarship Deadlines
    - November 1: Early Opportunity Scholarship Deadline
    - February 1: Priority Scholarship Deadline
      - The priority scholarship deadline for students planning to enroll in the spring semester is October 15.
    - Friday before classes start: Final Scholarship Deadline
  - Transfer Scholarship Deadlines
    - November 1: Priority Scholarship Deadline for students planning to enroll in the spring semester
    - April 1: Priority Scholarship Deadline for students planning to enroll in summer or fall
    - Friday before classes start: Final Scholarship Deadline
- **How to Apply.** Students can apply online via the Undergraduate Admissions website or apply in person at the Office of Undergraduate Admissions and Recruitment. Students can also apply using the Common App beginning August 1. OSU requires a non-refundable application fee of $50 or application fee waiver for domestic students. Official transcripts and test scores (not required if applying as test optional) are also required before an admission decision can be determined.
- **Freshman.** For the purpose of determining admission, a freshman student is one who has earned no more than six hours of college level credit after graduation from high school. (This excludes credits earned concurrently with high school enrollment and credit earned by examination.)
- **Concurrent.** For the purpose of determining admission, a concurrent student is one who is currently enrolled as a high school junior or senior and is interested in completing college coursework during their junior or senior year of high school.
- **Transfer.** For the purpose of determining admission, a transfer student is one who has earned seven or more semester hours of college-level credit after graduation from high school.
- **Readmission.** A student who has attended OSU, but was not enrolled during the immediate past semester (except the summer session), must submit an updated Application for Admission/Scholarship and a current application fee or waiver. A student who has enrolled in another college or university since last attending OSU must submit a transcript from each institution, an updated Application for Admission/Scholarship and a current application fee or waiver. Admission status will be determined after an evaluation of all previous work has occurred.
- **Returning from Military Leave of Absence.** A returning service member whose enrollment was interrupted due to service obligations must submit an updated Application for Admission/Scholarship if they have not enrolled at OSU for a period of five years or more. A returning service member whose enrollment was interrupted for less than five years due to service obligations should contact the Office of the Registrar and submit the Military Leave of Absence and Intent to Return from Military Leave of Absence forms. Returning service members must submit confirmation of military service orders that necessitated absence from the university in order to receive an application fee waiver.

Freshman Admission Requirements

For purposes of admission, a freshman student is one who has earned no more than six hours of college level credit after graduation from high school. This excludes credits earned concurrently with high school enrollment and credit earned by examination.

Students must graduate from an accredited high school or have earned a General Education Diploma (GED). OSU follows accreditation standards as outlined in Oklahoma State Regents for Higher Education (OSRHE) policy.

Assured Admission Criteria

To be admitted in good standing, a student must satisfy at least one of the following performance standards and all of the curricular requirements listed below.

1. Achieve a four-year high school cumulative GPA of 3.00 or higher (weighted or unweighted on a 4.00 grading scale; GPAs not using a 4.0 scale will be converted to a 4.0 scale), and rank scholastically among the top one-third (33.3%) of their graduating class, or
2. Achieve a GPA of 3.00 or higher (on a 4.00 grading scale, adding standard weighting (1.0) to The College Board's Advanced Placement courses, the International Baccalaureate higher-level courses, Honors, Advanced and Pre-Advanced Placement) in the required 15 core high school courses (see Curricular Requirements listed below) and attain either an ACT composite score of 21 or higher or SAT score 1060 nor higher, or
3. Attain an ACT composite score of 24 or higher or a total SAT of 1160 or higher.

Comprehensive Review

At Oklahoma State University, ALL STUDENTS are encouraged to apply because we individually review each application through our holistic and alternative admission programs. We consider many factors, including: high school GPA, ACT or SAT scores, responses to application essays, academic letters of recommendation, leadership experience, community involvement and accomplishments.

Students who score between current OSU assured admission standards and the minimum State Regents' standards stated below will be considered for holistic admission (admission in good standing):

- ACT 22/SAT 1100 or SAT 1020, OR
- High school core curriculum GPA of at least 3.0
- Cognitive Factors (60 percent)
- Non-Cognitive Factors (40 percent) which are measured by responses to the application essays, recommendations, leadership, involvement and accomplishments.

All other students will be considered for alternative admission (probationary admission). See Special Freshman Admissions Programs section below for more information.

SAT total score is the combination of Critical Reading and Math sections only.

SAT scores indicated here represent tests taken on or after the National March 2016 test.

ACT composite is the Final Composite Score or Superscore as calculated and reported by ACT.

Test Optional

Students have the option to apply to OSU without consideration of a test score. Students may indicate on their application for admission that they would like to be considered as test optional and submit their high school transcript for review. This includes home school, private, parochial, or other non-public high schools which are not accredited by a recognized accrediting agency.

Students who apply via the test optional process will be considered for admission in good standing (assured and holistic admission) as well as alternative admission.

Currently, consideration for most university scholarships requires an official test score from ACT or SAT, and we encourage students to provide us their test scores as soon as they are available for complete scholarship consideration.

Curricular Requirements

All students must complete the following curricular requirements for admission:

Subjects	Years
English (grammar, composition & literature)	4
Mathematics (algebra I & above)	3
History & Citizenship (American history required, plus additional units from economics, geography, government, history, or non-Western culture)	3
Laboratory Science	3
Other (from any of the above or foreign language or computer science)	2

In addition to the above requirements, it is recommended that students also complete the following additional courses:

Subjects	Years
Fine arts (music, art, or drama); Speech	additional 2
Lab science	additional 1
Mathematics	additional 1

Students who have earned any hours of college-level credit must also meet university retention standards to be admitted in good standing (see "Retention Standards" in Transfer Admission).

Curricular Deficiencies and Remediation

Students must place into college-level coursework in the areas of English, math, reading, and science through appropriate placement testing. The predicted grade index, which is a regression equation that uses items from students' high school transcripts and/or standardized test scores, is used to place students into English, reading or science courses. The OSU Math Placement exam is used for placement in math courses. Secondary testing for placement purposes is available through the College Board's ACCUPLACER exams. For additional information visit placement.okstate.edu (http://placement.okstate.edu) or contact University Assessment and Testing at 405-744-5958.

English Proficiency Requirement

All new applicants for undergraduate study for whom English is a second language are required to show proficiency by achieving the following minimum scores on the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), Duolingo English Test (DET), or Pearson Test of English (PTE) exams. Scores over two years old by the beginning of the term students wish to enter are not acceptable unless they have been attending school in the U.S. since the test date.

- 500 paper-based TOEFL or
- 61 internet based TOEFL or
- 5.5 IELTS exam or
- 95 DET exam
- 44 PTE exam

When requesting ETS send official score reports to Oklahoma State University, please use the ETS institution code, 6546, for OSU and department code, 00.

In extraordinary and deserving cases, the President or the President's designee may admit a student who fails to meet the above requirements. In these situations, the applicant must have demonstrated proficiency in the English language prior to admission. For further details, contact the Office of Undergraduate Admissions.

Special Freshman Admission Programs

Alternative Admission

Students whose high school achievement is below the standards specified in the performance requirements may be eligible for admission under the Alternative Admission Program. Applicants will be admitted if they demonstrate a likelihood of success at OSU based on comprehensive review of transcripts, essays, recommendations, and other application materials.

Adult Admission

Adults 21 years of age or older or individuals on active military duty may be admitted after careful consideration is given to determine the probability of academic success of the student. Factors such as maturity of the individual, job skills and life experiences, motivation, ability to benefit, and access to educational programs are considered in addition to past academic achievement in determining probability of academic success.

Summer Provisional Admission

Individuals not meeting requirements for admission under another category may be eligible for enrollment in the summer session immediately following high school graduation. Students must have graduated from high school or have earned the GED, meet all 15 curricular

requirements, and meet at least one of the following: HS GPA greater than or equal to 2.5 or ACT composite greater than or equal to 18 or SAT total score greater than or equal to 850.

Students must also place into college-level coursework in the areas of English, math, reading and science. See Curricular Deficiencies and Remediation on previous page.

Opportunity Admission Program

Students who have not graduated from high school but whose composite score on the ACT or combined verbal and mathematics scores on the SAT places them at the 99th percentile, may apply for full admission. Admissibility will depend on test scores, evaluation of maturity level, and whether the experience will be in the best interest of the student, both intellectually and socially.

Assured Admission Criteria (for students attending homeschool or unaccredited high schools)

An individual who is a graduate of a private, parochial, or other non-public high school which is not accredited by a recognized accrediting agency is eligible for admission to the University if:

1. The student has graduated from high school or a home study program, and
2. The student has attained an ACT composite score of 24 or higher, or a total SAT composite score of 1090 or higher, or a total SAT-R composite score of 1160 or higher, and
3. The student has satisfied the high school curricular requirements as certified by the school official or, if home study, the parent.

Students attending homeschool or unaccredited high schools are eligible for test optional, holistic and alternative admission. See Test Optional and Comprehensive Review sections above for more information.

Correspondence Study Enrollment

Admission to the University is not required for enrollment in correspondence study courses. However, academic credit for these courses will not be applicable toward a degree until the student has been formally admitted to the University and has secured the approval of the appropriate academic officer for such credit.

Non-Degree Option

Students who wish to enroll in courses without intending to pursue a degree may be permitted to enroll in up to twelve credit hours without satisfying admission requirements. If a student wishes to enroll in additional coursework (over the twelve hours allowed) he or she will be required to satisfy admission requirements.

High School Concurrent Enrollment

1. A senior or junior student enrolled in an accredited Oklahoma high school may, if he or she meets the requirements below, be admitted provisionally as a special student.
   a. Achieve a current cumulative high school grade-point average of 3.00 or higher (on an unweighted 4.00 grading scale; GPA is an unweighted average of all grades "A" equating to 4.00 and "D" equating to 1.00 taken 9th through 12 grades), and rank scholastically among the top one-third (33.3%) of their graduating class, or
   b. Attain a Pre-ACT (10th Grade) composite score of 24 or higher or a total PSAT/NMSQT score of 1160 or higher, or
   c. Attain an ACT composite score of 24 or higher or a total SAT score of 1160 or higher, and
   d. Be eligible to complete requirements for graduation from high school (including curricular requirements for college admission) no later than the spring of the senior year, as attested by the high school principal. Students must also provide written permission from their counselor, principal and from their parents or legal guardian.
2. A student receiving high school-level instruction at home or from an unaccredited high school may be admitted provisionally as a special student after completing enough high school coursework to be equivalent to an individual who is classified as a junior or senior at an accredited high school.

For students applying with a standardized test score, national ACT and SAT testing is preferred for concurrent student admission. One OSU residual ACT per year may be used for concurrent admission.

Concurrent students are eligible for test optional admission. See Test Optional section above for more information.

SAT total score is the combination of Critical Reading and Math sections only.

SAT scores indicated here represent tests taken on or after the National March 2016 test.

ACT composite is the Final Composite Score or Superscore as calculated and reported by ACT.

A high school student admitted as a concurrent student may enroll in a combined number of high school and college courses per semester not to exceed a full-time college workload of 19 semester credit hours. For purposes of calculating workload, one high school credit course is equivalent to three semester credit hours of college work.

A student may enroll in a maximum of nine semester credit hours during a summer session or term at a college or university of the State System without the necessity of being concurrently enrolled in high school classes during the summer term. For purposes of calculating workload, one-half high school unit shall be equivalent to three semester credit hours of college work.

For calculation of work load for students in "blocked" courses, contact the Office of Undergraduate Admissions and Recruitment.

The completion of the high school curricular requirements shall not be required of concurrently enrolled high school students for purposes of admission. However, students may only enroll in curricular areas where they have met the assessment requirements for college placement. Concurrently admitted high school students will not be allowed to enroll in any zero-level courses designed to remove high school deficiencies.

Students must place into college-level coursework in the areas of English, math, reading, and science through appropriate placement testing. The predicted grade index, which is a regression equation that uses items from students' high school transcripts and/or standardized test scores, is used to place students into English, reading or science courses. The OSU Math Placement exam is used for placement in math courses.

Once a student is concurrently enrolled at OSU he or she may continue enrollment, provided that during the concurrent enrollment period the student achieves a college grade-point average of 2.00 or higher, and upon graduation from high school meets both the performance and curricular requirements for admission. To continue concurrent

enrollment, the student must submit an updated Concurrent Application Form to the Office of Undergraduate Admissions and Recruitment.

Credit by Exam

A brochure of the CLEP, AP and IB examinations and corresponding scores accepted by OSU can be found on the Undergraduate Admissions website.

Additional information pertaining to these examinations can also be found in the University Academic Regulations section of this Catalog.

Transfer Admission

The information in this section is designed to provide transparency to Oklahoma State University's (OSU) transfer admission processes including admission requirements, awarding transfer credit, equivalency guides and articulation agreements.

Definitions:

Transfer Student—for the purpose of determining admission, a transfer student is one who has earned a minimum of seven or more semester hours of college-level credit in all college-level coursework attempted after graduation from high school .

Concurrent Student—one who is currently enrolled as a high school junior or senior and is enrolled in college coursework during their junior or senior year of high school.

Course articulation—the act of evaluating coursework earned at another institution to match content and identify the closest equivalent OSU course. This evaluation includes associated credit hours, grades, and other related course attributes to articulate on the OSU transcript.

Transfer articulation agreement—formal agreement between OSU and another institution that defines how courses taken or degrees earned at that institution can be used toward fulfilling specific degree requirements at OSU. These agreements are signed for specific academic years and correspond to OSU degree requirements in the catalog for that academic year.

Prior Learning—learning acquired prior to OSU enrollment including, but not limited to, work and life experiences, coursework from non-degree granting institutions, professional training, military training, or open source learning.

Accreditation—the process used by the State Regents or other entities recognized by the U.S. Department Education (USDE) to ensure postsecondary education providers meet and maintain minimum standards of quality and integrity regarding academics, administration, and related services.

Transfer Admission Requirements

1. Students who have earned between 7-23 hours of college credit must satisfy freshman admission requirements and achieve a minimum transfer GPA of 2.25 or higher in all college-level coursework attempted.
2. Students who have earned 24-59 hours of college credit must achieve a minimum transfer GPA of 2.25 or higher in all college-level coursework attempted.
3. Students who have earned 60 or more hours of college credit must achieve a minimum transfer GPA of 2.00 or higher in all college-level coursework attempted.

Awarding Transfer Credit

Transfer credit evaluation is initiated in the Office of Undergraduate Admissions and Recruitment and determines acceptable transfer credit on a course-by-course basis for college-level credit. Students must have a completed application on file or be a currently enrolled OSU student to receive an official course evaluation. The evaluation is based on course content, as described in the catalogs of the transfer institution(s) and in consultation with academic units at OSU. Transfer credit is awarded based on accreditation standards as outlined in Oklahoma State Regents for Higher Education (OSRHE) policy. All records of students' previous collegiate coursework must be submitted as part of the transfer application requirements. In order to continue enrollment at OSU, students are required to submit an official in-progress or final college transcript from every institution attended or listed on their application prior to admission at Oklahoma State University. Students must also submit any credit attempted from other institutions during their college career at OSU.

Students who do not submit transcripts from institutions at which they've attempted or earned coursework are subject to the disciplinary action described in OSU's Student Code of Conduct, which may make an individual ineligible for admission or continuation at Oklahoma State University.

Any coursework taken at least two semesters prior to the desired application entry term must be fully transcribed before the transcript can be utilized for admission evaluation or determining admissibility to the university. All transfer courses are recorded on the student's OSU academic transcript. Developmental education, audited courses, and courses with grades of I, W, AW, S, U, P, NP, N, and X are not calculated in the GPA.

See also University Academic Regulation 4.3 Transfer Credit from Other Accredited Four-Year Institutions and 4.4 Transfer Credit from Community Colleges for more information.

Evaluating and Modifying Course Equivalencies

The Office of Undergraduate Admissions and Recruitment performs the initial evaluation of transfer credit and will establish a direct course equivalency or elective credit in the student information system transfer catalog.

Academic colleges determine how transfer credit, on a course-by-course basis, applies to requirements in a specific degree major, minor or option. Courses transfer as elective credit when there is not a direct OSU equivalent course.

Students and/or college partners may request a review of any course by emailing the Office of Undergraduate Admissions and Recruitment. Any changes based on this review require approval from the academic department head or designee. Students should include information beyond the course description, like a course syllabi and/or course assignments.

Course equivalency modifications can be submitted at any point throughout the year. However, updates in the Banner student information system will only be made at the beginning of each term. Modifications will be made on a term-forward only basis. Any updates to courses for current terms will be applied on an individual student basis.

Approved Equivalency Guides

Equivalency guides are tools designed to help prospective students determine how courses already earned from other institutions transfer to

OSU. The guides also assist current OSU students plan what courses to take at other institutions that will transfer back to an OSU degree plan.

The current OSU approved equivalency guides are explained below. Each of these interactive tools can be found on the OSU website. The OSRHE Course Equivalency Project Matrix can be found on the OSRHE website.

- Transfer Equivalency Self-Service is an interactive tool for prospective students to show how their credits from other institutions will transfer course-by-course to OSU degree plans.
- Transfer Guides are designed to help current students who are looking for specific courses to take at another institution that will transfer to their OSU degree.
- Transfer Maps are established agreements between OSU and other higher education institutions designed to show students course-by-course and semester-by-semester what courses they will take at both institutions to complete degrees.
- The Oklahoma State Regents for Higher Education (OSRHE) Course Equivalency Project Matrix is designed to help students during the transfer process. OSRHE provides a course transfer matrix that outlines courses that will transfer among Oklahoma's public colleges and universities. In addition, each bachelor's degree-granting university lists the requirements for each of its bachelor's degree programs and publicizes those requirements for use by all other colleges and universities. Courses listed under the same Common Course category on the Course Equivalency Project Matrix will be accepted by OSU from all institutions listed in that category as equivalent for the academic year during which those institutions' courses are listed.

Credit Conversion Calculations

Semester Calendar Credit Hours. Most U.S. higher education institutions operate on an academic year divided into two equal semesters of 15-16 weeks' duration, with a winter break of 2-3 weeks and a summer session of 10-12 weeks, plus additional shorter breaks. OSU operates on the semester calendar. The unit of credit at Oklahoma State University is equal to the semester hour.

Quarter Calendar Credit Hours. Some institutions use a quarter calendar, in which the academic year is divided into three terms, called quarters, of 10-11 weeks' duration plus a summer session (optional), a short winter term and other calendar breaks. Quarter credit hours represent proportionately less work than semester hours due to the shorter terms, about two-thirds of a semester credit hour. For example, a bachelor's degree at an institution on the quarter calendar may require a minimum of 180 quarter hours, which compares to 120 semester hours at an institution on the semester calendar.

Credit hours earned at colleges or universities on a quarter-hour system will be multiplied by two-thirds (2/3) to produce the OSU semester-hour equivalent (i.e., one quarter-hour equals two-thirds of a semester hour; or a 5-hour quarter course equals 3.34 hours in semester credit).

Clock hours. Clock hours are the total number of actual hours per week a student spends attending class or other instructional activities that count toward completing a program of study. 37.5 clock hours equals 1 OSU semester credit hour.

Competency-based and no-level courses will be evaluated on a course-by-course basis.

See University Academic Regulation 4.8 Semester Credit Hour section of this catalog for more information.

Minimum Grade Requirements for Transferring Credit to OSU

OSU articulates all previous coursework for college-level credit earned at institutions which are fully accredited as outlined in OSRHE policy. However, minimum grade requirements exist for various OSU degree programs (i.e. minimum grades of D required for all degrees, and some degrees require minimum grades of C or higher).

Students are responsible for satisfying all degree requirements in effect for the declared program, including minimum grade requirements for specific courses that may be in addition to meeting the minimum passing grade for a course (D) or minimum GPA requirements for the degree.

Credit for Prior Learning

See University Academic Regulation 4.6 Credit for Prior Learning (Credit by Exam) section of the catalog for information about obtaining credit from work and life experiences, coursework from non-degree granting institutions, professional training, military training, open source learning and extra institutional learning.

Transferring Credit Earned in High School: Concurrent and Credit by Examination

Concurrent: Students wishing to receive OSU credit for college-level coursework taken prior to high school graduation through concurrent enrollment must submit an official transcript from the college or university through which the course was completed. Coursework completed prior to high school graduation will not be included in credit hour or GPA calculations for OSU admission.

Credit by Examination. See University Academic Regulation 4.6 Credit for Prior Learning (Credit by Exam) section of this catalog for more information.

Credit Levels

Lower-division coursework cannot substitute for upper-division credit-hour requirements. However, the content is transferable. For example, if a student completes Smart Course 2000 at two-year college A, it will transfer in content to four-year college B for its Smart Course 3000. The student will not need to repeat the content or learning competencies acquired in Smart Course 2000. But, the student must still complete the full amount of 3000- and 4000-level semester hours that college B requires for a baccalaureate degree.

Applying General Education Credit

Students who transfer to an Oklahoma public four-year university with an associate in arts or associate in science degree (two-year degrees) from another Oklahoma public college, are guaranteed via OSRHE policy that the associate's degree will satisfy all freshman and sophomore general education requirements at the four-year university. Students who transfer to another college before completing an associate's degree will receive general education credit for courses that match those at the transferring institution.

Credit Life and Expiration

The time limit for following a given undergraduate degree program is six years. A student generally follows the degree requirements associated with their matriculation year or the year they begin enrollment at OSU. Although the curriculum may be revised before a student graduates, students will be held responsible for the degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added and

they do not delay graduation. A student has the option of adopting the new degree requirements that have been established since matriculation.

Transfer of Graduate Coursework for Undergraduate Credit

In general, OSU does not evaluate graduate-level transfer work for students pursuing new undergraduate degrees. Students may, however, inquire about the potential transfer of individual graduate credits with their academic advisor. If it is determined that graduate coursework transferred from another institution could meet requirements for an OSU undergraduate degree, students should submit the official graduate transcript with a completed Request for Transfer of Graduate Coursework for Undergraduate Credit form to the Office of Undergraduate Admissions and Recruitment for review.

Graduate coursework accepted for transfer as OSU undergraduate credit is not eligible for consideration by the OSU Graduate College for graduate level credit. For OSU Graduate College policies on transfer of graduate credits, please see the Graduate College Policy 5.0 Transfer of Graduate Credits section of this catalog for more information.

Technology Credit

In general, OSU does not accept credit from technology or vocational institutions. Some departments may offer Advanced Standing Exam options for experiential learning earned at a technology center. See University Academic Regulation 4.6 Credit for Prior Learning (Credit by Exam) section of this catalog for more information.

Military Credit

See University Academic Regulation 4.6 Credit for Prior Learning (Credit by Exam) section of this catalog for information about transferring military credit.

Readmission

A student who has attended OSU but was not enrolled during the immediate past semester (except the summer session) must file an updated Application for Admission/Scholarship and current application fee or waiver. A student who has enrolled in another college or university since last attending OSU must submit a transcript from each institution. Admission status will be determined after all coursework has been evaluated.

Additional Requirements for Admission or Continued Enrollment

Enrollment Information

Admitted freshmen must pay the $300 enrollment deposit beginning December 1 to register for housing and orientation and enrollment. Room assignments will be based on the date and time students submit their enrollment deposit and their housing preferences. Students who are eligible for a Pell Grant as determined by the Free Application for Federal Student Aid will complete the online process and have their enrollment deposit deferred. The enrollment deposit can be refunded in part ($250) until May 1.

After admission is granted, all students will receive detailed information on orientation and enrollment. The fall semester enrollment process for freshmen is completed during scheduled orientation sessions conducted on campus during the summer. Parents are welcome and are encouraged to participate in the enrollment process with the student. Students are required to submit a final high school transcript which includes confirmation of high school graduation to complete their admission record.

Immunization Requirements and Health History

All new students are required by Oklahoma law to provide evidence of having been immunized against measles, mumps, and rubella, (two shots), and against Hepatitis B, (three shot series). A meningitis vaccine is strongly encouraged (but not required) if you are living in campus housing. In addition, students are required to complete a brief medical history found on the Immunization and Health History form. Students can submit shot records and complete the health history form on the OSU University Health Services website. If this information is not received during the student's first semester, a hold will be placed on future enrollment until the requirement is met.

In-State/Out-of-State Status of Enrolled Students

As a state-supported institution, Oklahoma State University is supported by legislative funds derived from State of Oklahoma tax revenue; therefore, In-State/Out-of-State status for tuition purposes is determined according to Oklahoma State Regents for Higher Education (OSRHE) policy.

The definition of the term "resident" may be different from the definitions developed by other agencies. For the purposes of tuition, the general definition of a resident is an independent person who has permanently resided in Oklahoma for 12 consecutive months, not primarily as a student at a post-secondary institution, and provides for his or her own financial support.

Initial Classification

A student's initial In-State/Out-of-State classification is determined by the Office of Undergraduate Admissions and Recruitment when the Application for Admission/Scholarship is received. VA beneficiaries should refer to this link regarding in-state residency classification and considerations: Residency FAQs | Oklahoma State University (okstate.edu) (https://registrar.okstate.edu/faqs/residency_faqs.html).

Petition for In-State Status

A student classified as out-of-state for tuition purposes may petition for in-state status if the student believes he/she has been incorrectly classified as out-of-state. A Petition for In-State Status form must be submitted along with any additional supporting documentation to the Office of the Registrar. The student will be notified in writing of the decision following the final review.

Deadlines for submitting petitions to be considered for reclassification in a given semester are as follows:

Fall Semester - October 31
Spring Semester - March 31
Summer Semester - June 30

If you are receiving federal financial aid, please seek advice from the Office of Scholarships and Financial Aid on how a reclassification may affect your aid.

Regulations governing the in-state/out-of-state status of students can be found in OSRHE policy and apply to all colleges and universities of the Oklahoma State System of Higher Education.

Orientation and Enrollment

Orientation and enrollment is a required program for all incoming freshman and transfer students. Developed to assist in the transition to Oklahoma State University, the program introduces campus resources, offices and information, and familiarizes incoming students and families with OSU procedures, environment, and the support areas of campus.

Incoming students receive pre-orientation and enrollment information through emails, calls, online modules, and print communications. The Undergraduate Admissions application portal includes a checklist students should use to be sure they have completed the paperwork and placement testing required prior to enrollment. During orientation and enrollment, concurrent orientation sessions are also held for family members who wish to know more about OSU's resources and support systems for new students. Visit newstudents.okstate.edu (https://go.okstate.edu/admissions/) for detailed information for new students and families.

During orientation and enrollment, students:

- Meet with academic advisors to learn about degree choices and initial tools for success at OSU.
- Enroll in classes.
- Prepare for academic transition from high school or another institution to OSU.
- Learn about life outside of the classroom and what is expected of OSU students.
- Define potential majors, careers, minors, and secondary areas of study.
- Work with peer leaders who mentor and provide information from a student perspective.

New Freshmen

For freshmen beginning fall semesters, orientation and enrollment occurs during the months of May, June and July. The traditional summer orientation is an overnight session where students meet with academic advisors in multiple settings and have time to consider course options prior to enrollment. An alternate condensed one-day option is available for students who have attended multiple academic campus events, are certain of their degree choice and can make decisions quickly. For those beginning enrollment in the spring semester, orientation and enrollment occurs in December and January during one-day programs.

Transfer Students

Transfer students have several options for enrollment. For transfers beginning in the fall semester, enrollment takes place in person and virtually in April, May, June, and July. For those beginning in the spring, enrollment is November and December. Enrollment dates for transfer students are based on the number of hours completed and posted to transcript(s) prior to any current course enrollment.

International Students

International students will work closely with both the Office of Undergraduate Admissions and Recruitment and the Office of International Students and Scholars throughout the enrollment process. For students first attending OSU in the fall, orientation and enrollment takes place in August right before the semester begins. For those beginning at OSU in the spring semester, orientation and enrollment is held in early January. Enrollment programs for international students include immigration paperwork and documentation, immunization records, advisement and enrollment.

Cowboy Welcome

The Office of Undergraduate Admissions and Recruitment, working in collaboration with numerous campus departments and volunteers, brings you Cowboy Welcome each fall. These events and sessions provide opportunities to learn more about the OSU campus before classes begin. Students connect with peers, upperclassmen, faculty and staff to learn about OSU traditions, expectations and student success resources. Some of Cowboy Welcome's signature events include Cowboy Kickoff, Class Photo, College Welcome Sessions, Student Organization Fair, SUAB Night, Colvin Center and Library House Parties, and many other campus and living group social activities. Students beginning in the spring semester also have the opportunity to participate in Winter Cowboy Welcome activities. Visit welcomeweek.okstate.edu (http://welcomeweek.okstate.edu/) for details.

International Undergraduate Admissions

Office of Undergraduate Admissions and Recruitment - International Undergraduate Admissions

Address: 219 Student Union, Stillwater, OK 74078-1035
Phone: 405-744-5358 or 1-800-233-5019, ext. 1
Fax: 405-744-7092
Website: admissions.okstate.edu (http://admissions.okstate.edu)
E-mail: international@okstate.edu

International students are required to meet academic performance standards which are equivalent to those established for all domestic applicants; however, freshman students educated outside the United States are not required to participate in the ACT or SAT. Participation in such tests for students educated outside the U.S. is only necessary for students wishing to qualify for certain scholarship opportunities. (See "Undergraduate Admissions" for the academic performance standards.)

Application Procedure

For purposes of admission, an international student is defined as a student who is, or will be, in the United States on a non-immigrant student visa.

When to Apply. Applications for international students are processed on a rolling basis just as domestic applicants; however, students are encouraged to submit materials by the following dates to ensure adequate time for their VISA interview process (out of country) or SEVIS transfer (in-country):

- Summer term: March 1 for out of country applicants / May 1 for students already in-country
- Fall term: June 1 for out of country applicants / July 1 for students already in-country
- Spring term: November 1 for out of country applicants / December 1 for students already in-country

How to Apply. Students can apply online via the Undergraduate Admissions website. OSU requires a non-refundable application fee of $90 USD, which can be paid online with the application.

Freshman. For the purpose of determining admission, a freshman student is one who has earned no more than six hours of college-level credit after graduation from high school (Higher Secondary). (This excludes credits earned concurrently with high school enrollment and credit earned by examination.)

Transfer. For the purpose of determining admission, a transfer student is one who has earned seven or more semester hours of college-level credit from an accredited U.S. college or university or a recognized post-secondary level institution located outside of the U.S. after graduation from high school (Higher Secondary).

Readmission. A student who has previously attended OSU, but was not enrolled during the immediate past semester (except the summer session), must submit an updated application for Admission/Scholarship and a current application fee. A student who has enrolled in another college or university since last attending OSU must submit a transcript from each institution, an updated application for Admission/Scholarship and a current application fee. Admission status will be determined after completion of Financial Guarantee and an evaluation of all previous work has occurred.

Freshman Admission Requirements

For the purpose of determining admission, a freshman student is one who has earned no more than six hours of college-level credit after graduation from high school (Higher Secondary).

Performance Requirements. International students qualify for assured admission if they meet the following criteria:

- English-language proficiency exams - TOEFL PBT 500+ **OR** IBT 61+ **OR** IELTS 5.5+, **OR** PTE 44+ **OR** DET 95+ **AND**

- High School GPA 3.0+ (based on 4.0 scale)

Freshman Documents Required:

1. An application for admission and a fee of U.S. $90.00 made payable to OSU.
2. An official or certified true copy[1] of each academic record in native language along with a certified English translation. Students enrolled at U.S. institutions may have certified true copies of their foreign records sent by their current institution.
   - Secondary school records (yearly mark sheets or transcripts).
   - National examination results.
3. English-language Proficiency [2]: All new applicants for undergraduate study for whom English is a second language are required to present either a minimum paper-based score of 500, or a minimum Internet-based score of 61 on the Test of English as a Foreign Language (TOEFL), or a minimum score of 5.5 on the International English Language Testing System (IELTS), or a minimum score of 44 on the Pearson Test of English Academic edition (PTE), or a minimum score of 95 on the Duolingo English Test (DET), taken within the last two years.
4. Complete OSU Financial Guarantee form and Bank Certification.
5. Copy of passport biographical page.

In extraordinary and deserving cases, the President or the President's designee may admit a student who does not meet the above English proficiency exam requirements. In these situations, the applicant must have demonstrated proficiency in the English language prior to admission. For further details, contact the Office of Undergraduate Admissions and Recruitment.

Transfer Admission Requirements

For the purpose of determining admission, international students will enter as a transfer student if they have earned seven or more semester hours of college-level credit from an accredited U.S. college or university or a recognized post-secondary level institution located outside of the U.S. after graduation from high school (Higher Secondary).

Performance Requirements for Credit Hours Attempted:
In evaluating undergraduate college-level credit for coursework completed outside of the U.S., OSU requires that the institution where the credit was earned and the program of study be recognized as tertiary level through the standards set by the country where the institution is located. OSU evaluates semester credit hours and grades earned based on U.S. equivalency standards. This excludes incomplete grades, passing

grades (ex: "P" or "S"), remedial/developmental coursework, repeated/forgiven credit and activity courses.

1. Students who have earned between 7-23 hours of college credit must satisfy both freshman admission requirements and achieve a transfer GPA of 2.25 or higher in all undergraduate college-level coursework attempted.

2. Students who have earned 24-59 hours of college credit must achieve a transfer GPA of 2.25 or higher in all undergraduate college-level coursework attempted.

3. Students who have earned 60 or more hours of college credit must achieve a transfer GPA of 2.00 or higher in all undergraduate college-level coursework attempted.

Transfer Documents Required:

1. An application for admission and a fee of U.S. $90.00 made payable to OSU.
2. College transcript[1] from each institution attended. Transcripts must be submitted in the original language and translated to English. Students enrolled at U.S. institutions may have certified true copies of their foreign records sent by their current institution.
3. English-language Proficiency[3]: All new applicants for undergraduate study for whom English is a second language are required to present either a minimum paper-based score of 500, or a minimum Internet-based score of 61 on the Test of English as a Foreign Language (TOEFL), or a minimum score of 5.5 on the International English Language Testing System (IELTS), or a minimum score of 44 on the Pearson Test of English Academic edition (PTE), or a minimum score of 95 on the Duolingo English Test (DET), taken within the last two years.
4. Complete OSU Financial Guarantee form and Bank Certification.
5. Copy of passport biographical page.

In extraordinary and deserving cases, the President or the President's designee may admit a student who does not meet the above English proficiency exam requirements. In these situations, the applicant must have demonstrated proficiency in the English language prior to admission. For further details, contact the Office of Undergraduate Admissions and Recruitment.

Non-Degree Seeking Students

Students who would like to take coursework at Oklahoma State University but do not intend to pursue a degree can apply to enroll in up to twelve credit hours without meeting admission requirements. Non-degree students are not required to submit a Financial Guarantee and will not receive immigration documents from OSU.

Non-Degree Documents Required:

1. Completed application for admission and $90 nonrefundable application fee (paid by credit card).
2. Copy of passport biographical page.
3. A letter from the international office at the current institution stating that the applicant is currently in-status with immigration, in good standing, and have permissions to take a course(s) from OSU.

Readmission Requirements

For the purpose of determining admission, international students are considered for readmission if they have previously attended OSU, but not enrolled during the immediate past semester (except the summer session).

Performance Requirements:

International students qualify for readmission if they left OSU in good standing:

- 1-30 hours of college credit and achieved a minimum GPA of 1.7 or higher in all college-level coursework attempted.
- 31+ hours of college credit and achieved a minimum GPA of 2.0 or higher in all college-level coursework attempted.

Readmission Documents Required:

1. An application for admission and a fee of U.S. $90.00 made payable to OSU.
2. Complete OSU Financial Guarantee form and Bank Certification.
3. Students who attended another college since last enrolled at OSU must submit official transcripts[1] from each institution attended. Transcripts must be submitted in original language and translated to English. Students enrolled at U.S. institutions may have certified true copies of their records sent by their current institution.

Immigration

The U.S. Citizenship and Immigration Services (USCIS) require that international students file a statement with the University showing adequate financial support for their education. OSU has its own Financial Guarantee that international students complete as a requirement to receive admission and an I-20 Certificate of Eligibility.

The I-20 is required in order to pay the SEVIS fee, apply for and receive an F1 visa, and to enter the U.S. lawfully in a student status. Students currently studying in the U.S. will receive detailed instructions on how to transfer their I-20/SEVIS record to OSU prior to enrollment. Questions related to SEVIS, other visa types, or individual immigration status issues should be sent to international@okstate.edu.

Orientation Information. All international students are required to attend and complete the ISS Immigration and Orientation and Enrollment sessions prior to enrollment. Orientation will include such topics as academic information, immigration regulations, housing, food, Stillwater community, transportation, banking practices, health care and American customs. The orientation programs occur the week before classes begin each fall and spring semester. Students should make their travel plans accordingly. Direct questions regarding these programs to the Office of International Students and Scholars (iss@okstate.edu (su-iss@okstate.edu)) and the Office of Undergraduate Admissions and Recruitment (admissions@okstate.edu (international@okstate.edu)).

Immunization Records. OSU's University Health Services requires all students to complete a health history and immunization form. TB testing is required and available on-campus at University Health Services (in lieu of the TB form). The Medical History & Immunization Record form is online at uhs.okstate.edu (http://uhs.okstate.edu/). It is recommended that students complete this form prior to arrival on campus. The form can be submitted in person upon arrival at University Health Services, or mailed to: University Health Services, 1202 W Farm Rd., Stillwater, OK 74078.

Additional Requirements for Admission or Continued Enrollment

Enrollment Information

Admitted freshmen must pay the $300 enrollment deposit beginning December 1 to register for housing and orientation and enrollment. Housing assignments will be based on the date and time students submit their enrollment deposit and their housing preferences. Sponsored students will complete the online process and have their enrollment deposit deferred. The enrollment deposit can be refunded in part ($250) until May 1.

After admission is granted, international students will receive detailed information on arrival and international orientation. The enrollment process for freshmen is completed during scheduled orientation sessions conducted on campus the week before classes begin. New freshmen are required to submit a final official high school transcript which includes confirmation of high school graduation to complete their admission record.

1

Scanned copies of transcripts from international institutions are accepted for admission purposes ONLY. You can send us copies of your transcripts by email to international@okstate.edu. In order to avoid delays in enrollment, applicants who are offered admission to OSU must submit official transcripts prior to enrollment at OSU.

2

English-language proficiency exams will be waived for domestically-based international high school students who have attended an English-speaking school. According to OSHRE policy, results of the TOEFL taken at international testing centers and special testing centers will be accepted. Results of the TOEFL taken at institutional testing centers will only be accepted by the administering institution.

3

English-language proficiency exams will be waived for transfer students who have 24 or more transferable credit hours from a U.S. or English-speaking post-secondary institution. According to OSRHE policy, results of the TOEFL taken at international testing centers and special testing centers will be accepted. Results of the TOEFL taken at institutional testing centers will only be accepted by the administering institution.

Bursar

Office of the Bursar

Laurie Beets–Bursar/Director
Kim Miller–Assistant Director
Wilma White–Assistant Bursar
Jessica Bates–Manager University Receivables
Steven Prudhomme–Senior Accountant
Cindy Buford–Manager of Teller Operations
Leica Harmon–Senior Accountant

Campus Address and Phone

113 Student Union
Stillwater, OK 74078-1014
Phone: 405.744.5993
Website: bursar.okstate.edu (http://bursar.okstate.edu)
E-mail: bursar@okstate.edu

Financial Obligation

Enrollment at Oklahoma State University incurs a financial obligation and responsibility of the student to pay all amounts owed in a timely manner. In order to remain in favorable financial standing with the University, and thereby continue to participate in its educational programs, services, and benefits, a student must meet all financial obligations incurred at the University on or before the billing due dates. The University reserves the right to refuse to allow additional charges to be placed on bursar accounts. By enrolling/registering in classes, you are accepting the responsibility of the costs associated with the courses unless you drop/withdraw by the published dates to receive credit. Administrative, clerical, or technical billing errors do not absolve payment for the correct amount of tuition, fees, and other associated charges assessed as a result of registration. If the account is not in good standing, enrollment is subject to cancellation, usually occurring prior to the 1st day of class of that semester. If a student is younger than the applicable age of majority, the educational services provided by OSU are deemed a necessity, and the student is contractually obligated pursuant to the "doctrine of necessaries."

Federal law limits the information the University may provide to parents of OSU students. School officials may not disclose personally identifiable information about students or permit inspection of their records without written permission from the student, unless the Registrar's Office has a Student Consent of Parental Access form on file or the student has designated access via Proxy on the student portal. Bursar information may be accessed by authorized user(s) the student grants consent via the student portal.

Oklahoma State University combines enrollment costs and charges from different areas on campus into one consolidated account. The Bursar Office generates a monthly electronic billing statement (e-bill) on the last business day of every month detailing charges, credits, and payments that occurred during the month. A billing notification is e-mailed to the student's University e-mail address and authorized users at the beginning of each month. A student must have an active University e-mail address to receive his/her e-bill notification. It is the student's responsibility to maintain accurate addresses in Student Self Service Portal and for taking action on any important correspondence emailed and maintaining adequate email space to ensure correspondence is received. An alternative email address and an **authorized user** may be set up online at my.okstate.edu (http://my.okstate.edu) by clicking the OSU Stillwater/Tulsa Bursar Account under Quick Links, if someone other than the student should receive billing notifications. Students can view their billing statement, semester account activity, set up authorized users, and pay online at my.okstate.edu (http://my.okstate.edu) by clicking the OSU Stillwater/Tulsa Bursar Account under Quick Links. Authorized user login is located through the bursar website at bursar.okstate.edu (http://bursar.okstate.edu).

Payment is due prior to the 15th of each month. If the 15th falls on a weekend, the due date is extended to the next business day without penalty. Late fees, holds, and enrollment cancellation can be avoided by paying by the published deadline. Accounts must be paid in current before a student is eligible to enroll for future semesters or receive any records from the University. A late payment penalty of 1.5% will be assessed monthly (19.56% APY) for any past due charges. All tuition and fees (required and optional) and other charges (including housing/meal plans) are due prior to the 15th of the billing month.

Maintenance of contact information listed on your account is the student's responsibility. The mailing, permanent, local, and billing addresses and phone numbers (home, cell, and work) on your account may be changed through the student portal at my.okstate.edu (http://my.okstate.edu). By providing such information, you authorize the University or its contracted agents to send correspondence or to contact you via the use of e-mail and telephone (using automated dialers, pre-recorded voice or text messages, or manual communication) and to contact you using any other information you have supplied to the University.

It is the student's responsibility to check his/her individual bursar account to verify that University-administered scholarships and waivers, as well as external scholarships, have been credited. Failure to view a bill does not relieve the student of his/her financial obligation, any late charges, and other penalties that may occur if the account is not paid by billing due dates.

In efforts to assist our students in meeting financial obligations, Oklahoma State University offers a semester-based payment plan as an alternative to the traditional lump-sum payment method. This plan provides an opportunity for families (authorized users) and students to pay University-billed expenses in regular monthly payments. No finance charges are associated with the payment plan or bursar holds if payments are made as promised. The payment plan is available online each semester. The student can sign-up online at my.okstate.edu (http://my.okstate.edu) by clicking on the OSU Stillwater/Tulsa Bursar Account under Quick Links. It is important to designate a parent under the authorized user tab by entering their email address for access to the payment plan enrollment. September 15th is the deadline to enroll in the Fall plan and February 15th is the deadline to enroll for the Spring plan. There is a $25 non-refundable application fee due at the time of application each semester. Payment plan participants receive installment payment due notifications in separate emails from the monthly billing notification. The monthly billing notification informs payment plan participants of the total monthly billing statement amount for informational purposes.

A paper check as payment authorizes Oklahoma State University to clear that check electronically. Bank accounts may be debited the same day payment is received. Electronically cleared transactions appear on bank statements even though paper checks are not presented to the financial institution. Any resubmission due to insufficient funds may also occur electronically. All transactions are secure and payment by check constitutes acceptance of these terms. Returned items are assessed a

$30 fee and the accountholder is responsible for all dishonored payments which have been processed on their account. If a payment is returned to the University by the bank and the payment was made to get enrolled, the Bursar may cancel enrollment and referral to student conduct is a possibility. A 3% or $3.00 minimum convenience fee will be added to all credit/debit card Bursar account payments. The convenience fee is nonrefundable, even if the payment in which it relates is cancelled, refunded, credited, or charged back. Visa, MasterCard, American Express, Discover, Diners Card International, JCB, BC Card and Dina Card are accepted. The credit card fee rate for international transactions is 4.25%.

A student experiencing financial difficulties should immediately contact the Office of the Bursar for assistance and guidance. All delinquent accounts accrue a penalty at the rate of 1.5% monthly (19.56% APY). A student may be contacted on all phone numbers, including cell phones, provided to the University as a source of contact. This includes contact from its agents, representatives, and attorneys (including collection agencies) for purposes of collecting any portion of the account financial obligation which is past due. Any charges incurred by the University in an effort to collect on delinquent accounts are assessed to and will be the responsibility of the account holder. A student will reimburse the University the fees of any collection agency which may be based on a percentage of the debt (at a maximum of 33.3%). All costs and expenses including reasonable attorney's fees the University incurs in such collection efforts will also be owed the University. These costs will be assessed to the student's bursar account and included in the balance due. Delinquent account information is disclosed to credit reporting agencies, which could endanger the student's credit rating on a local or national level. Past due accounts are presented to the warrant intercept program (WIP) that captures state income tax refunds to pay outstanding OSU debt. Oklahoma law governs agreements with OSU and any disputes arising shall be determined in accordance with the law of this jurisdiction. Accounts must be cleared before a student drops/adds classes or enrolling for subsequent semesters. Oklahoma State University extends bursar optional charging privileges to students in order to facilitate use of campus based services. Bursar accounts must remain current or charging privileges may be revoked. Unresolved past due bursar account obligations can automatically terminate future term enrollment. There is a $100 late enrollment fee if enrollment occurs after the first day of class. The University reserves the right to request prepayment before allowing registration for future terms based upon previous actions.

A student must authorize the University to apply federal financial aid to pay all charges as well as up to $200 from a prior award year on the student's bursar account, withhold all semester charges incurred (tuition, fees, housing, etc.), and refund the excess, if any. To authorize Title IV to pay all semester expenses and up to $200 from a prior award year, accept the TIV Authorization online at: http://my.okstate.edu, clicking the Student Self-Service Portal. Click the Financial Aid Tab, Award, Award for Aid Year, Select Aid Year, then Resources/Additional Information. Parents must accept a Title IV Authorization form which is available on the bursar website at: http://bursar.okstate.edu/forms (http://bursar.okstate.edu/forms/). For additional information, see below section Title IV Authorization. If my federal or institutional financial aid is either not received by Oklahoma State University or loss of eligibility to retain financial aid for the semester occurs, the student still has the responsibility for paying their bursar account obligations.

Tuition and Fee Information

Tuition and fees are assessed based on the number of credit hours enrolled, residency status (in-state or out-of-state), program, and course type (undergraduate, graduate, or professional). Additional fees may apply for specialized programs or courses. For specific details about tuition and fees or obtain a cost estimate visit the bursar website bursar.okstate.edu (https://bursar.okstate.edu). More information is also available in the tuition and fee section of the catalog.

Internship classes are billed at the standard resident/nonresident tuition and fee rates. Some fees support academic, security, technology, and administrative resources available to all students, regardless of their physical location. These services remain accessible to students even when they are off-campus. Some courses are designated 100% off campus resulting in some fees not charged.

Study Abroad Course costs vary depending on the college and the criteria or destination of the course. A $200 Study Abroad fee is assessed per course along with tuition/fees. In addition to course tuition and fees, there are non-refundable program costs that may include housing (hotel), excursions, and sometimes airfare. Non-refundable program costs are typically processed prior to the semester of the course and are due when billed, with monthly due dates, and should be paid prior to leaving for the class. If not paid when billed, enrollment holds and finance charges may apply. Consult your advisor for specific course cost information or contact the Center for Global Learning Study Abroad Office 405-744-8569, Email: abroad@okstate.edu, Website: https://global.okstate.edu/studyabroad/osu_study_abroad/.

Enrollment Schedule Changes

Enrollment Schedule Changes during the Nonrestrictive Drop/Add Period (Full Tuition/Fee Credits for Dropped Courses)

For full-semester (16-week) courses, week days 1–6 constitute the nonrestrictive drop/add period (100% full refund period). See the Academic Calendar (https://registrar.okstate.edu/academic_calendar/) for specific dates. *Intersession courses, short courses and other courses that do not extend through the entire semester follow proportionate drop/refund periods.* Courses added during the nonrestrictive drop/add period will cause a tuition/fee recalculation resulting in additional college-based fees, possible additional course fees, and could affect whether an undergraduate student pays the block rate for that semester. Full 100% tuition/fee credits are issued for courses dropped during the nonrestrictive drop/add period.

Enrollment Changes during the Restrictive Drop/Add Period (Partial Tuition/Fee Credits for Dropped Courses)

For full-semester (16-week) courses, week days 7–10 constitute the restrictive drop/add period (partial refund period). See the Academic Calendar (https://registrar.okstate.edu/academic_calendar/) for specific dates. *Intersession courses, short courses and other courses that do not extend through the entire semester follow proportionate drop/refund periods.* Courses added during the restrictive drop/add period will cause a tuition/fee recalculation resulting in additional college based fees, possible additional course fees, and could affect whether an undergraduate student pays the block rate for that semester. Partial tuition/fee credits are issued for courses dropped during the restrictive drop/add period. For graduate students and other students not eligible for the block rate, 50% tuition/fee credits are issued for courses dropped during the restrictive drop/add period. The table below illustrates the partial tuition/fee credits for undergraduate students eligible for the block rate.

Enrolled credit hours before drop/add	Enrolled credit hours after drop/add	Tuition and University-wide Fees after drop/add	Partial Refund for Tuition and University-wide Fees	College/ Course Fees after drop/add	Partial Refund for College/ Course Fees
12-18	12-18	Block rate	No refund	Varies by course	50% of fees for dropped courses
12-18	0-11	PCH rate (based on hours from column 1)	50% of PCH rate for dropped credit hours	Varies by course	50% of fees for dropped courses
19 or more	19 or more	Block rate +PCH rate for each credit hour over 18 (based on hours from column 1)	50% of PCH rate for dropped credit hours	Varies by course	50% of fees for dropped courses
19 or more	12-18	Block rate + PCH rate for each credit hour over 18 (based on hours from column 1)	50% of PCH rate for dropped credit hours over 18	Varies by course	50% of fees for dropped courses
19 or more	0-11	PCH rate (based on hours from column 1)	50% of PCH rate for dropped credit hours	Varies by course	50% of fees for dropped courses

*PCH = per-credit-hour tuition/university-wide fee rate

Enrollment Changes after the Restrictive Drop/Add Period (No Refunds (Tuition/Fee credits) for Dropped Courses)

Courses **added** after the first two weeks of a fall/spring semester (or after the applicable restrictive drop/add period) will cause a tuition/fee recalculation resulting in additional college-based fees, possible additional course fees, and could affect whether an undergraduate student pays the block rate for that semester. Tuition/fee credits are **not** provided for courses dropped/withdrawn **after** the restrictive drop period for a particular course, and block rate status is not affected by such drops.

Refunds of Credit Balances

The University's policy is to refund eligible credit balances from student bursar accounts in compliance with all applicable regulations. OSU complies with the U.S. Department of Education rules and regulations in accordance with The Federal Student Financial Aid Handbook instructions. A *credit* balance results when the total of the credits posted to a student's account (e.g., payments, loan disbursements, scholarships, etc.) exceeds the total of the charges applied to the account for the semester. University housing charges are included in their entirety in the semester charge total. Anticipated funds, including anticipated financial aid, are not considered credits to a student's account until the funds have actually been disbursed to the account. Bursar account credits resulting from a credit card payment are refunded back to the credit card, not to the student. Please note: Some financial aid programs and waivers may not be disbursed until well into the semester, especially for first-time OSU students; please plan accordingly. If a refund is issued and subsequently a balance is created in the student's account, it is the student's responsibility to return the funds to the University promptly or pay the balance in accordance with the University's billing and payments policies, including any applicable penalties and late fees.

The direct deposit refund program provides quicker access to refunds when bursar accounts have semester credit balances. By participating in direct deposit, a refund electronically transfers to a designated bank account within 48 hours after the credit balance becomes effective. Financial institutions have individualized policies when posting electronic transfers to accounts; so deposit of funds should be confirmed prior to use. Direct deposit authorization may be completed online at my.okstate.edu (http://my.okstate.edu) by clicking the OSU Stillwater/Tulsa Bursar Account under Quick Links. Refunds will be issued by paper check for students not participating in direct deposit. Checks are mailed to the local address listed in the student's bursar account weekly after the credit balance becomes effective. Direct deposit refunds routinely occur daily and early in the semester, often before bookstore and other miscellaneous charges are processed. Students are responsible for paying these subsequent charges as they appear on monthly bursar billing statements.

Title IV Authorization

Title IV federal financial aid includes the following programs: Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (SEOG), Federal Perkins Loan, Federal Subsidized and Unsubsidized Direct Loans and Federal Parent Direct Loans. The US Department of Education requires OSU to obtain authorization to pay all charges on your bursar account for the current semester with Title IV financial aid with question #1 on your online financial aid tab. If you declined or do not accept (question #1), then Title IV aid will only pay current tuition, related fees, room and meal plans (if contracted with the OSU). Other current semester charges such as your parking permit, library fines, athletic all sports ticket, study abroad program fees, student store, orange tech and health center charges will remain unpaid which could result in having an enrollment hold if not paid by the due date, even if you have a credit balance on your account after authorized charges have been paid. If you choose not to provide authorization to pay non-institutional charges with your federal financial aid, you could receive a refund check and still owe a balance on your student account for non-institutional charges.

Accept question #2, if you desire to allow OSU to apply Title IV financial aid to prior year institutional charges up to $200 on your student account for the current academic year. Beginning July 1, 2008, the amount of Title IV financial aid that can be used to pay prior academic year charges is limited to a total of not more than $200. If you decline, Title IV aid will only pay current academic year charges. Summer-term charges are considered prior academic year charges in the Fall term. Even if you have a balance on your account after your current year charges are paid, you will have to pay any previous academic year charges with other funds or risk having an enrollment hold.

You do not have to authorize again once you are a student at OSU. It is recommended all students who have applied for financial aid accept or decline, so at some point in the future, if you do receive Title IV financial aid, this authorization will already have been given.

Third-Party (Non-OSU) Scholarships

Many students receive various scholarships from sponsors external to OSU. Typically, the sponsoring organization sends funds directly to the University to be applied to the student's account for payment of costs associated with attending OSU. Scholarship funds received directly by the student should be brought to the Bursar Office for deposit to his/her bursar account to facilitate the necessary governmental reporting. Notify the Bursar Office prior to the semester's due date when a sponsor requires a billing invoice from OSU in order to process payment. OSU does not accommodate requests from third-party entities containing the language mandating they be the payor of last resort or other aid must be processed prior to their payment. Application of pay occurs in the order payments are received and in accordance with Department of Education regulations.

1098-T Form

OSU is required annually to furnish you with a Form 1098-T, Tuition Statement, which reports qualified tuition and related expenses associated with your enrollment at OSU. This information assists you in determining whether you, or the person who can claim you as a dependent, may take either the tuition and fees deduction or claim an education credit to reduce federal income tax. For more information, see IRS Pub. 970, Tax Benefits for Education. Log into my.okstate.edu (http://my.okstate.edu) by clicking on the OSU Stillwater/Tulsa Bursar Account under Quick Links, and your 1098T statement is located on the welcome screen just below Statements. In order for us to prepare the forms accurately, Federal law requires you to furnish us with your correct taxpayer identification number (TIN). Generally, this number is your Social Security Number (SSN) or, if you are not eligible to obtain an SSN, you must obtain from the Internal Revenue Service (IRS) an individual taxpayer identification number (ITIN) and provide that number to us. Take your Social Security card to the Registrar's Office to update your student record and complete the social security number (or taxpayer ID number) update form. Failure to furnish a correct SSN/TIN may result in the IRS assessing you a $50 penalty.

Leave of Absence for Active Military Duty

Per Oklahoma State law (SB 1830), OSU offers a military leave of absence (MLOA) to students who are members of the active uniformed military services of the United States who are called to active duty. An MLOA allows a student to be absent from the University for active duty without penalty to admission status or grade-point average and without loss of institutional financial aid. It also allows the student to be eligible for withdrawal from all or some classes with a full refund of tuition and fees or to be eligible for incomplete grades in classes for which he/she has successfully completed at least 50% of the coursework at the time of leave, if the student intends to complete the classes upon return from active duty. MLOAs shall not exceed a cumulative five years. Graduate student LOAs are for a period of one year with annual extensions possible up to the five-year cumulative limit. Students apply for MLOA by submitting the appropriate form and supporting documentation. See OSU Military Leave of Absence FAQs on the Registrar website (registrar.okstate.edu (http://registrar.okstate.edu)) for more information.

Registrar

Office of the Registrar

Rita Gearhart Peaster, MS—University Registrar
Leslie Evans, MS—Senior Associate Registrar
Bobby Jenkins, MA—Associate Registrar
Trent Davis—Assistant Registrar, Front Line Registrar
Chelsea McElroy, MS—Assistant Registrar, Certifications
J. Blake Myers—Assistant Registrar, Technology
Amber Todd—Assistant Registrar, Academic Records

Campus Address and Phone

322/324 Student Union
Stillwater, OK 74078-1013
Phone: 405-744-6876
Website: registrar.okstate.edu (http://registrar.okstate.edu)
E-mail: registrar@okstate.edu

Student Enrollment

Students must be admitted to the university before they can enroll for classes. Enrollment initiates the creation of an academic record and incurs a financial obligation (see the "Bursar (p. 43)" section of this Catalog). The registration process is introduced to new freshmen and transfer students during new student orientation.

After meeting with their academic advisor to select courses appropriate to their degree plan, students enroll online via Self Service at my.okstate.edu (http://my.okstate.edu). An overdue account with the University or other registration holds will prevent registration until these holds have been cleared.

Continuing students register for summer and fall classes during the latter part of the preceding spring semester and for spring classes during the latter part of the preceding fall semester.

Continuous Enrollment

An undergraduate student who is enrolled for every fall and spring semester is considered continuously enrolled. A fall or spring semester with no enrollment is considered a break in enrollment. A graduate student with no break in enrollment or with a break in enrollment of less than one year is considered continuously enrolled. See the Graduate College section of this catalog. Readmission to the university is required if a student does not maintain continuous enrollment.

Priority Enrollment

In order to facilitate access to courses required for timely degree completion, a student's priority for enrollment generally follows academic class level, with graduate students and seniors having the highest priority. Some exceptions to this basic priority may be necessary to accommodate bona fide student needs, such as students with physical disabilities, for those committed (by a scholarship or full-time employment at the University) to perform a service for the University on a schedule specified by the University, for graduate students and students in the Honors College. Academic Affairs determines enrollment priorities, and enrollment schedules are published in the Enrollment Guide which can be found on the Office of the Registrar's website registrar.okstate.edu (http://registrar.okstate.edu) each semester.

Full-time OSU staff may utilize priority enrollment to help ensure they are given an opportunity to identify classes at a time that is least disruptive to their work schedule. This benefit of priority enrollment is extended to full-time (100% FTE), regular staff members.

Late Enrollment

Students are allowed and encouraged to enroll well before the beginning of a given term. Students whose initial enrollment for the term occurs on or after the first day of the class will be charged a late enrollment fee. A student is permitted to add classes after initial enrollment without a late enrollment fee during the first two weeks of a 16-week semester or through the fifth day of an eight-week summer session or during proportionate periods for block or short courses (see additional restrictions for Adding Courses below). See the "Tuition, Fees and Cost Estimates" section of the Catalog for the current late enrollment fee amount.

Adding or Dropping Classes

Adding Classes

Approval from the student's academic advisor is required for adding a class. The sixth day of a regular semester, or the third class day of an eight-week summer session, or proportionate periods for short courses is the last day a class may be added (nonrestrictive). With instructor approval, a class may be added during the second week of classes of a regular semester, or the fourth or fifth day of an eight-week summer session (restrictive).

During the restrictive period, students must obtain their instructor's and advisor's signatures on a drop/add card and submit it to the Office of the Registrar to add a new class to their schedule.

Dropping Classes

Dropping refers to the dropping of one or more classes while remaining enrolled in at least one other OSU course for a given semester. Classes may not be dropped without the approval of the student's academic advisor. Enrollment changes, such as dropping classes, are the responsibility of the student. Failure to attend classes or nonpayment of tuition and fees does not constitute dropping a class.

General drop periods are provided in the table below. The Academic Calendar provides specific dates for each term. Exceptions to these deadlines may be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdrawal Petition and the Petition for a Refund of Tuition and Fees are available on the Registrar's website (registrar.okstate.edu (http://registrar.okstate.edu)).

Periods for Dropping Full-Semester (16-week) Courses

Semester Time Period	Course Grade	Course-Related Tuition/ Fee Refund
Before term begins	No transcript record	100% refund
First 6 days	No transcript record	100% refund
Days 7-10	No transcript record	Partial refund
Weeks 3-12	"W"	No refund
Weeks 13-14	"W" or "F" as assigned by instructor	No refund
Weeks 15-16	No drop option - Final grade as assigned by instructor	No refund

*Summer classes, intersession classes, and other classes that do not follow the standard 16-week semester follow proportionate drop/refund periods.

A student may not drop any class in which a violation of academic integrity is pending against the student. If the student admits responsibility for a violation meriting a grade of "F" for an assignment or examination, the instructor or Academic Integrity Panel may permit the student to drop the class with a grade of "W." If the student is found not responsible for the violation, they may drop the class with either a "W" or "F," (according to the drop grade policy) appearing on the academic record. If the student is found responsible for the violation, the instructor may assign an appropriate sanction, including assigning the grade "F" for the assignment/examination or "F!" for the class. (See Policy and Procedures Letter 02-0822).

International students need to consult with International Students and Scholars (ISS) before dropping classes or withdrawing for the semester. Under reporting regulations required by the Student and Exchange Visitor Information System (SEVIS), dropping below full-time can put a student's visa status in jeopardy.

Cancelling Enrollment and Withdrawing from the University

Enrollment cancellation occurs when a student drops all classes before classes begin, that is, before the applicable semester or session begins. Student requests to cancel enrollment must be received by the Office of the Registrar before the first day of classes for the term. Enrollment changes, such as cancelling enrollment or withdrawing from the University, are the responsibility of the student. Failure to attend classes or nonpayment of tuition and fees does not constitute notice of cancellation.

Withdrawing from the University occurs when a student drops all classes after classes begin, that is, after the applicable semester or session begins. The withdrawal process is initiated with the student's academic advisor or in the student's academic student services office. International students must also consult with International Students and Scholars (ISS) before dropping courses or withdrawing for the semester. Under reporting regulations required by the Student and Exchange Visitor Information System (SEVIS), dropping below full-time can put a student's visa status in jeopardy.

General cancellation and withdrawal periods are provided in the table below. The Academic Calendar provides specific dates for each term. Exceptions to these deadlines may be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdrawal Petition and the Petition for a Refund of Tuition and Fees forms are available on the Registrar's website (registrar.okstate.edu (http://registrar.okstate.edu)).

Cancellation/Withdrawal Periods for Full-Semester (16-week) Courses

Semester Time Period	Course Grade	Course-Related Tuition/ Fee Refund
Before term begins (cancellation)	No transcript record	100% refund
First 6 days	No transcript record	100% refund
Days 7-10	No transcript record	Partial refund
Weeks 3-12	"W"	No refund
Weeks 13-14	"W" or "F" as assigned by instructor	No refund
Weeks 15-16	Final grades as assigned by instructor	No refund

*Summer classes, intersession classes, and other classes that do not follow the standard 16-week semester follow proportionate cancellation/ withdrawal/refund periods.

Leave of Absence for Military Service

Per Oklahoma State law (SB 1830) and Public Law 117-328: Section 3691A, OSU offers a military leave of absence (MLOA) to students who are members of the United States Armed Forces (including reserve components) who receive orders to perform a period of service (i.e., active duty, inactive duty training, or state service). A MLOA allows a student to be absent from the University after receiving orders for a period of service without penalty to admission status or grade-point average and without loss of institutional financial aid. It also allows the student to be eligible for withdrawal from all or some classes with a full refund of tuition and fees or to be eligible for incomplete grades in classes, if the student intends to complete the classes upon return from their period of service. Students apply for MLOA by submitting the appropriate form and supporting documentation. See OSU Military Leave of Absence FAQs on the Registrar website (registrar.okstate.edu (http://registrar.okstate.edu)) for more information.

Veteran Benefit Services

Oklahoma State University maintains a full-time office of veteran benefit services for the convenience of veterans and their dependents. OSU offers courses which are approved for students to receive education benefits by the Oklahoma Department of Veteran Affairs (ODVA) State Approving Agency. Information and assistance is available for completion of appropriate forms necessary to apply for education benefits. A student who is eligible for educational benefits through the Veterans Administration must adhere to the following:

Changes in Enrollment/Drops/Adds, or Withdrawal from University

After enrollment information has been submitted, any increase or decrease in credit hours must be reported to the VA. These changes may result in a change of benefit amount received and possible overpayment debts incurred by the student. It is the student's responsibility to immediately notify the OSU VA office of any changes in enrollment. Should overpayments occur due to a change in student's initial class schedule, the student is responsible to make repayment arrangements with the university.

Veteran education beneficiaries are required to have all previous credit evaluated including military training. To establish military credit, students must submit a copy of their JST (Joint Services Transcript) and/ or a DSST transcript to the Office of Undergraduate Admissions for evaluation.

Degree/Major Declaration

Upon enrollment at OSU, a student may remain undeclared for no more than 2 academic semesters. At that time a degree program must be declared. An OSU degree plan will be selected and only courses or prerequisites which lead to that degree/major will be certified to the VA for payment/benefits.

- Any changes in the degree requirement sheet must be documented by the student's academic advisor and approved before certification can be completed and transmitted to the VA.

Non-Standard Academic Terms

VA pays education benefits for the actual enrollment dates of the term.

- The VA pays for the number of degree applicable credit hours taken within a defined period of enrollment.
- Intersession and non-standard term enrollments will be certified for payment according to the actual published dates of those classes.
- Please contact a school certifying official regarding full-time status reporting to the VA as full-time status is determined based on dates of enrollment for non-standard terms and not cumulative hours for the term.

Unsatisfactory Progress

VA regulations state that satisfactory attendance, conduct and progress must be maintained.

- If you do not maintain the academic standards set by the university, the OSU VA Office is required to notify the VA of your status.

Repeat Courses

VA WILL NOT PAY for repeat courses that were successfully completed and letter grade received - regardless of when the course was completed or who paid for the course.

- Letter grades of A, B, C, or D are considered successful for VA purposes. The only exception is when a higher grade is required to meet the degree requirement.

Payment of Education Benefits

You must submit an advisory form each semester that you wish to receive education benefits. Any supporting documentation - course substitutions/deviations, change of major, etc., must be received BEFORE enrollment certification can be completed for the term. The VA cannot issue benefit checks until the certification process has been completed by the OSU Veteran Services office.

Responsibility of Payment to the University

Applying for VA Education benefits does not prevent late payment penalties.

- Students receiving benefits under Chapters 31 (Veteran Readiness and Employment benefits) and Chapter 33 (Post 9/11 - awarded percentage from VA for tuition/fees only) will not be penalized due to delayed payment by the VA (i.e., restriction of enrollment, late fees, requirement of alternative/additional funding or denial of access to school resources available to other students).
    - In all other instances, you are responsible for payment of tuition and fees by published payment deadlines. Non-receipt of benefits from the VA to the student will not prevent late payment penalties from applying to your Bursar account.

Any change in enrollment status may adversely affect payments received by the VA, and students will be held liable for any overpayment the VA issues on their behalf.

Contact a veteran's representative in the Office of the Registrar, 322 Student Union, for more information.

In-State/Out-of-State Status of Enrolled Students

In-state/Out-of-state status refers to whether you are an in-state Oklahoma resident or an out-of-state resident, and this classification determines your tuition cost.

Initial Classification

A student's initial In-State/Out-of-State classification is determined by the Office of Undergraduate Admissions when the Application for Admission/ Scholarship is received.

Petition for In-State Status

A student classified as out-of-state for tuition purposes may petition for in-state status if the student believes they have been incorrectly classified as out-of-state. A Petition for In-State Status form must be submitted along with any additional supporting documentation to the Office of the Registrar. The student will be notified in writing of the decision following the final review.

Deadlines for submitting petitions to be considered for reclassification in a given semester are as follows:

In-state status (and associated in-state tuition) is not granted on a retroactive basis. If you are receiving federal financial aid, please seek advice from the Office of Scholarships and Financial Aid on how a reclassification may affect your aid.

Regulations governing the in-state/out-of-state status of students are the responsibility of the Oklahoma State Regents for Higher Education and apply to all colleges and universities of the Oklahoma State System of Higher Education.

Section I. Purpose

Oklahoma Statute 70 O.S., Supp. 2003, §3218.2 authorizes the State Regents to establish tuition and fees charged at public institutions to instate/out-of-state postsecondary students. This policy statement establishes definitions, principles, criteria, and guidelines to assist institutional officials in the classification of postsecondary students as instate/out-of-state students. Also, the policy statement should be helpful to prospective students in the determination of their in-state/out-of-state status prior to enrollment or for those out-of-state students seeking to be reclassified as in-state. Determination of in-state status for purposes of attendance at an institution in the state is based primarily on domicile as defined below. Since 1890, it has been public policy in Oklahoma to provide comprehensive, public higher education opportunities for citizens make to improve themselves, to upgrade the knowledge and skills of the Oklahoma work force, and to enhance the quality of life in Oklahoma generally. Therefore, residents of Oklahoma are afforded subsidies covering a portion of their educational costs at state colleges and universities. Out-of-state students are also provided educational subsidies, although at lower levels than those provided for permanent instate students. Out-of-state tuition waivers provide Oklahoma institutions the ability to attract and graduate out-of-state students with academic abilities and talents who contribute to the economic development, vitality and diversity of the state's campuses. Additionally, Oklahoma institutions located near the state's borders are especially sensitive to serving demographic areas where population, tax dollars, property ownership, etc., cross state borders frequently. Out-of-state tuition waivers allow institutions to serve the community and

surrounding area to the benefit of the institution and its students without detriment to Oklahoma residents.

Section II. Definitions

1. Dependent Person - is one who is under the care, custody, and support of a parent or legal guardian.
2. Domicile - is a person's true, fixed, permanent home or habitation. It is the place where they intend to remain and to which they expect to return. A person can have more than one residence, but only one domicile. Domicile has two components - residence and the intent to remain. When these two occur, there is domicile.
3. Documented foreign national - is a person who was born outside the jurisdiction of the United States (U.S.), is a citizen of a foreign country, and has not become a naturalized U.S. citizen under U.S. law, but has entered the U.S. by way of legal documentation such as a visa.
4. Full-Time Active Duty Military Personnel - for the purposes of this policy, are members of the armed forces who are on active duty for a period of more than 30 days (means active duty under a call or order that does not specify a period of 30 days or less). Personnel and their spouse and dependent children may be classified upon admission as in-state as long as they are continuously enrolled. "Armed Forces" means Army, Navy, Air Force, Marine Corps and Coast Guard. Such term does not include full-time National Guard duty.
5. Full-time Professional Practitioner or Worker - is a U.S. Citizen or Lawful Permanent Resident who has come to Oklahoma to practice a profession on a full-time basis, conduct a business full-time, or work on a full-time basis.
6. Full-Time Student - is an undergraduate student enrolled in a minimum of 12 credit hours per semester in an academic year or a minimum of six credit hours in a summer session. A full-time graduate student is one enrolled in a minimum of nine credit hours per semester or as required by the institution.
7. Independent person - is one who is responsible for his or her own care, custody and support.
8. In-state status - is a classification for a post-secondary student who has lived continuously in Oklahoma for at least 12 months not primarily as a post-secondary student, has established domicile in Oklahoma, and meets requirements associated with in-state status including sections IV, VII and VIII. Students classified upon admission as in-state are eligible to apply for state scholarship and financial aid programs.
9. Lawful permanent resident - is a naturalized alien who has been granted official immigration status as a lawful permanent resident of the U.S. This is evidenced by a lawful permanent resident card (also called a "green card").
10. Out-of-state status - means an individual does not meet in-state requirements defined in this policy unless otherwise allowed by exceptions or provisions in policy.
11. Out-of-state tuition waiver - is the portion of tuition that is waived in excess of that paid by students classified as in-state.
12. Undocumented student - is a person who was born outside the jurisdiction of the U.S., is a citizen of a foreign country, and has not become a naturalized U.S. citizen under U.S. law and has entered the U.S. without documentation.
13. U.S. Citizen - is a person born in the United States, a U.S. Territory or former U.S. Territory or who has been granted citizenship by the U.S. Government.

Section III. Principles

As part of the admissions process, institutions are responsible for determining students' in-state/out-of-state status consistent with this policy. Administrators interview students, review documentation and are in the best position to determine whether the student may be classified as in-state. Each institution must designate an appropriate administrative official (most often the Admissions Officer) as responsible for administration of this policy. The burden of proof to establish in-state status shall be upon the student. Since residence or domicile is a matter of intent, each case will be judged on its own merit by the appropriate administrative official(s) consistent with this policy. Mere assertion by a student such as checking "In-State" on the application for admission is insufficient. The appropriate administrative official must review relevant documents, consider the policy principles and procedures, circumstances, and documentation to determine in-state status. While no set criteria, documentation, or set of circumstances can be used for this purpose, the principles outlined below guide the process.

1. Attendance at a post-secondary educational institution, albeit a continuous and long-term experience, does not establish in-state status. Therefore, a student neither gains nor loses in-state status solely by such attendance.
2. Students attending an Oklahoma college or university may perform many objective acts, some of which are required by law (i.e., payment of taxes), and all of which are customarily done by some out-of-state students who do not intend to remain in Oklahoma after graduation, but are situational and necessary and/or voluntary (i.e., registering to vote, obtaining a driver's license). Such acts and/or declarations alone are insufficient evidence of intent to remain in Oklahoma beyond the college experience.
3. An out-of-state student attending an Oklahoma college or university on more than a half-time basis is presumed to be in the state primarily for educational purposes.
4. An individual is not deemed to have acquired in-state status until they have been in the state for at least a year primarily as a permanent resident and not primarily as a student. Likewise, an individual classified as in-state shall not be reclassified as out-of-state until 12 months after leaving Oklahoma to live in another state.
5. Unless residency has been established in another state, an individual who resided in Oklahoma at the time of graduation from an Oklahoma high school and has resided in the state with a parent or legal guardian for two years prior to graduation from high school will be eligible for in-state status as allowed in Sections VI, VII and VIII.
6. Each spouse in a family shall establish his or her own status on a separate basis. Exceptions include the following: when an out-of-state status individual marries a person with in-state status, the out-of-state individual may be considered in-state after documentation of the marriage and proof of domicile are satisfied without the 12 month domiciliary waiting period, and as provided in sections VII and VIII.
7. Initial classification as out-of-state shall not prejudice the right of a person to be reclassified thereafter for following semesters or terms of enrollment as in-state provided that they establish domicile as defined in this policy. Institutions must establish procedures for students to appeal out-of-state status classification.
8. Institutions may, but are not required, to waive out-of-state tuition (also known as Nonresident Tuition Waiver) in accordance with current State Regents' Tuition and Fees Policy 4.18.5.B that allows any institution in the State System to waive a portion of the out-of-state tuition which amount shall not exceed the difference between out-of-state tuition and the amount paid by in-state students.

9. When a student transfers from one institution to another, the institution to which the student transfers is not bound by the in-state/out-of-state classification previously determined and may request documentation to determine the student's in-state/out-of-state status.

Section IV. Dependent and Independent Persons

The legal residence of a dependent person is the postsecondary student's parents or the residence of the parent who has legal custody or the parent with whom the student habitually resides. If the student is under the care of those other than the parents, the legal residence is that of the student's legal guardian. In-state/out-of-state classifications of postsecondary students with extenuating circumstances (e.g., divorced parents with joint custody when one parent or legal guardian lives out-of-state and/or claimed as a dependent on a tax return, etc.) may be considered on a case-by-case basis. Guidance for administrative officers charged with classifying students will be provided in the procedures manual. A dependent person may establish independent person status through circumstances including, marriage, formal court action, abandonment by parents, etc. To qualify, a dependent person must have completely separated from the parental or guardian domicile and prove that such separation is complete and permanent. Additionally, the individual must provide evidence that they are responsible for their housing and living expenses. Mere absence from the parental or guardian domicile is not proof of its complete abandonment. If an applicant can provide adequate and satisfactory evidence of independent status and domicile and they have resided in Oklahoma for the last 12 months, while not being enrolled more than half time at an institution of higher education, they may be granted in-state status at the next enrollment occurring after expiration of 12 months following establishment of domicile in Oklahoma.

Section V. Documented Foreign Nationals

Documented foreign nationals may attend as postsecondary students if they have appropriate educational visas. These individuals are eligible for in-state classification if they become lawful permanent residents, have resided in Oklahoma for at least 12 consecutive months, and meet domicile requirements as set forth in this policy. Documented foreign nationals who are present in the U.S. with visas that allow full-time employment for extraordinary ability in sciences, arts, education, business, athletics, as an executive, manager, or specialist of a treaty nation company operating in the U.S. are eligible for out-of-state tuition waivers as long as they remain in full-time working status. Dependents of these documented foreign nationals who are lawfully present in Oklahoma based on the documented foreign national's visa are also eligible for out-of-state tuition waivers.

Section VI: Students Impacted by War

Students who meet the criteria for SSR established by the US Department of Homeland Security, or have been given TPS by US Citizenship and Immigration Services, are eligible for in-state tuition. The university DSO must provide a letter of verification to support SSR or TPS eligibility.

Section VII. Undocumented Students

In accordance with Title 70, O.S., Section 3242 (2007) (also known as HB1804 of the First Regular Session of the 51st Legislature), an individual who cannot present to the institution valid documentation of United States nationality or an immigration status permitting study at a postsecondary institution but who:

1. Graduated from a public or private Oklahoma high school;
2. Resided in this state with a parent or legal guardian while attending classes at an Oklahoma public or private high school in this state for at least two (2) years prior to graduation; and
3. Satisfies admission standards for the institution.

Individuals who meet the above requirements are eligible for enrollment and/or out-of-state tuition waivers if that individual:

a. Provides the institution with a copy of a true and correct application or petition filed with the United States Citizenship and Immigration Service (USCIS) to legalize the student's immigration status, or
b. Files an affidavit with the institution stating that the student will file an application to legalize his or her immigration status at the earliest opportunity the student is eligible to do so, but in no case later than:
    i. One (1) year after the date on which the student enrolls for study at the institution, or
    ii. If there is no formal process to permit children of parents without lawful immigration status to apply for lawful status without risk of deportation, one (1) year after the date the USCIS provides such a formal process, and
    iii. If the student files an affidavit pursuant to subsection 2. above, presents to the institution a copy of a true and correct application or petition filed with the USCIS no later than:
        1. One (1) year after the date on which the student enrolls for study at the institution, or
        2. If there is no formal process to permit children of parents without lawful immigration status to apply for lawful status without risk of deportation, one (1) year after the date the USCIS provides such a formal process, which copy shall be maintained in the institution's records of that student.
    iv. Any student who completes and provides the institution with a copy of a true and correct application or petition filed with USCIS to legalize the student's immigration status shall not be disqualified on the basis of the student's immigration status from any scholarships or financial aid provided by this state as long as the student meets the following:
        1. Graduated from a public or private Oklahoma high school;
        2. Resided in this state with a parent or legal guardian while attending classes at an Oklahoma public or private high school in this state for at least two (2) years prior to graduation; and
        3. Satisfies admission standards for the institution.

Section VIII: Foreign Service Officers and Members of the Intelligence Community

Foreign service officers (22 U.S.C. § 3903) employed by the United States Department of State and members of the intelligence community (50 U.S.C. § 3003) enrolled in a State System institution are entitled to pay in-state tuition and fees if their home residency is Oklahoma, even if they permanently work abroad to fulfill their duties. Spouses and dependent children of foreign service officers and members of the intelligence community are also eligible for in-state tuition. *See* 20 U.S.C. § 1015d.

Section IX: Active Uniformed Services

The following shall be eligible for in-state status:

1. Members of the uniformed services, along with their dependent children and spouses, who provide evidence that they are on full-

time active-duty status of more than thirty (30) calendar days in the uniformed services stationed in Oklahoma or temporarily present through military orders. Further, when members of the armed services are transferred out-of-state, the member, their spouse and dependent children shall continue to be classified as in-state as long as they remain continuously enrolled.

2. Regardless of the residency of the student, the dependent children or spouse of a person who is currently serving as a member of the active uniformed services of the United States on full-time active-duty status of more than thirty (30) calendar days for whom Oklahoma is the home of record.
3. A person who files with a State System institution at which they intend to register a letter of intent to establish residence in the state and who:
   a. Is entitled to educational or training assistance under 38 U.S.C. § 3319 by virtue of a relationship to a person who is currently serving on active duty; and
   b. Resides in the state while enrolled in the institution, regardless of the student's formal state of residence or the active service member's home of record.
4. Former full-time active uniformed services personnel who remain in Oklahoma after their service may retain their in-state status without the 12-month requirement if they establish domicile as provided in this policy. Members of the armed forces who provide evidence that they are full-time active duty in the armed forces stationed in Oklahoma or temporarily present through military orders shall be immediately classified upon admission as in-state status along with their spouse and dependent children. Further, when members of the armed services are transferred out-of-state, the member, their spouses and dependent children shall continue to be classified as in-state as long as they remain continuously enrolled. Former full-time active military personnel who remain in Oklahoma after their service may retain their in-state status without the 12-month requirement if they establish domicile as defined in this policy.

Section X. Discharged or Released from Active Uniformed Service (Regardless of Home of Record)

In compliance with the Veterans' Access, Choice, and Accountability Act of 2014 and Title 70, O.S. Section 3247, a student who files with the institution within the State System at which the student intends to register a letter of intent to establish residence in the state and who resides in the state while enrolled in the institution shall be eligible for in-state status, regardless of the residency of the student or home of record, if the student:

1. Is a person who:
   a. was discharged or released from a period of not fewer than ninety (90) days of active duty uniformed service, less than five (5) years before the date of enrollment in the course(s) concerned, and
   b. is pursuing a course of education with educational assistance under Chapters 30. 31, 33 or 35 of Title 38 of the United States Code while living in Oklahoma; or
2. Is a person who:
   a. is entitled to assistance under Section 3311(b)(9) or 3319 of Title 38 of the United States Code by virtue of a relationship to a person who was discharged or released from a period of not fewer than ninety (90) days of active duty uniformed services, and
   b. enrolls in the course(s) concerned within five (10) years of the date the related person was discharged or released from a period of not fewer than ninety (90) days of active duty uniformed services.
3. Is a person who is pursuing a course of education with educational assistance under Chapter 31 of Title 38 of the United States Code.
4. Is a member of the uniformed services, or the spouse or dependent of a member of the uniformed services, who has been stationed for more than one (1) year in Oklahoma at any time in the previous ten (10) years before the date of enrollment in the course(s) concerned

Section XI: Discharged or Released from Active Uniformed Service (Oklahoma Home of Record)

A person, or dependent children or spouse of a person, who was discharged or released from a period of not fewer than ninety (90) calendar days of active uniformed service and for whom Oklahoma is the home of record shall be eligible for in-state status

Section XII. Reserve Officer Training Corps (ROTC)

A person who is participating in or has received a full or partial scholarship from the Air Force, Army, or the Navy/Marines ROTC shall be eligible for in-state status.

Section XIII: Oklahoma National Guard

A person who is a current member of the Oklahoma National Guard shall be eligible for in-state status.

Section XIV: Full-Time Professional Practitioner or Worker

A U.S. citizen or Lawful Permanent Resident who provide evidence of having come to Oklahoma to practice a profession on a full-time basis, conduct a business full time, or work on a full-time basis shall be immediately classified as in-state status along with the individual's spouse and dependents without the 12 month domiciliary requirement so long as they continue in such full-time employment capacity or until such time that they independently establish in-state status as described in Section III of this policy. A full-time professional practitioner or worker who is temporarily assigned to another location but maintains domicile in Oklahoma shall be considered to have in-state status along with the practitioner's spouse and dependent children.

Section XV: Citizens of Freely Associated States

In accordance with 48 U.S.C. § 1988(b)(1)(E), citizens of the three Freely associated States, which are the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau, are eligible for out-of-state tuition waivers. Effective on July 1, 2024, for the 2024-25 award year and each award year thereafter, an institution shall not charge more than its in-state tuition rate to citizens of the three Freely Associated States.

Faculty and Staff Enrollment in University Courses

Faculty

Full-time (100%) continuous, regular members of the faculty are eligible to enroll for credit in one course per semester or a maximum of five hours during normally scheduled working hours and receive discounted tuition and fees as indicated below. To be eligible for the faculty/staff fee waiver, an employee must submit a completed Faculty - Staff Tuition and Fee Waiver Request form to the Office of the Registrar prior to the beginning of classes. If enrollment does not exceed one course or five credit hours, only the department head's approval is needed to receive the fee waiver.

If the employee is enrolled in more than one course or five credit hours, the employee's dean and vice president must also give approval for the waiver.

For eligible faculty members enrolled in University courses, the following fees will be waived:

a. Student activity fees
b. Student activity fee - Athletic fee
c. Health Services fee
d. Transit/Parking Services fee
e. Student Development fee
f. Daily O'Collegian fee

Faculty members must pay 50% of the general tuition, 100% of any additional fees not listed above, as well as 100% of any special course charges. Some courses taught through extension, outreach and year-long independent study are excluded. For faculty members who enroll in NOC-Stillwater courses, the fees listed above may be waived, but no tuition is waived. For more information contact the department offering the course to determine whether the tuition waiver applies or refer to Policy and Procedures Letter 2-0108, University Enrollment and Fee Waivers for Faculty, December 2008.

Exempt and Non-Exempt Staff

Full-time (100%) continuous, regular staff members who meet the academic requirements of the University are eligible to enroll for credit and receive discounted tuition and fees as indicated below. To be eligible for the faculty/staff fee waiver, an employee must submit a completed Faculty/Staff Tuition and Fee Waiver Request form to the Office of the Registrar prior to the beginning of classes. Enrollment in University courses which meet during the staff member's normal working hours will be limited to one course or a maximum of five hours. There is no limit on the number of courses a staff member may enroll in after normal working hours. If enrollment does not exceed one course or five credit hours, only the department head's approval is needed to receive a fee waiver. If the staff member is enrolled in more than one course or five credit hours, his or her dean and vice president must also give approval for a fee waiver.

For eligible staff members enrolled in University courses, the following fees will be waived:

a. Student Activity fees
b. Student Activity fee - Athletic fee
c. Health Services fee
d. Transit/Parking Services fee
e. Student Development fee
f. Daily O'Collegian fee

Staff members must pay 50% of the general tuition, 100% of any additional fees not listed above, as well as 100% of any special course charges. Some courses taught through extension, outreach and year-long independent study are excluded. For staff members who enroll in NOC-Stillwater courses, the fees listed above may be waived, but no tuition is waived. For more information contact the department offering the course to determine whether the tuition waiver applies or refer to Policy and Procedures Letter 3-0744, University Enrollment for Staff, December 2008.

Official Records

Six-Week (Midterm) Progress Reports

Faculty report six-week (midterm) progress grades for all students (regardless of classification) enrolled in 1000- and 2000-level classes. This will normally occur during the seventh week of classes. Student athletes will have all six-week grades reported, not just 1000- and 2000-level. Progress reports are made available to students and to the students' advisors through Self Service.

Grade Reports

Final grades for all students are compiled and released shortly after the end of each semester by the Office of the Registrar. Final grades are made available electronically to students, students' advisors and students' deans through Self Service.

Official Transcripts

All OSU official transcripts of student academic records are prepared and released by the Office of the Registrar. The official transcript includes the complete academic record (undergraduate, graduate and professional) as well as the signature of the University Registrar and the official seal of the University.

OSU official academic transcripts may be ordered in the following ways:

1. **Current students** - online via Student Self Service;
2. **Former students** - online via the Registrar's transcript ordering site (https://exchange.parchment.com/send/adds/?main_page=login&s_id=OKwNbTpbNd5ojuKr).

Copies of transcripts from other institutions cannot be furnished.

Students' Rights to Privacy

The Family Educational Rights and Privacy Act of 1974 (FERPA, also known as the Buckley Amendment) was designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records in all offices, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

An OSU student has the right to:

1. Inspect and review information contained in his or her educational records within 45 days of the day that the University receives a written request from the student.
2. Challenge the contents of the educational record.
3. Have a hearing if the outcome of a challenge is unsatisfactory.
4. Submit an explanatory statement for inclusion in the educational record, if the outcome of the hearing is unsatisfactory.
5. Secure a copy of the institutional policy, which includes the location of all educational records.
6. Prevent disclosure, with certain exceptions, of personally identifiable information from the educational record.
7. File a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Student Privacy Policy Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-8520.

Withholding Disclosure of Information

Currently enrolled students may withhold disclosure of directory information. A student may file a written request with the Office of the Registrar to not release personally identifiable information, including directory information. Such requests will be honored until revoked by the student. The University assumes that failure on the part of any student to specifically request the withholding of directory information indicates individual approval for disclosure.

Access to Records

Students may inspect and review their educational records by making a written request to the office that maintains the records (see Location of Records below). No non-directory information regarding students' educational records may be disclosed to anyone without written consent of students, except for selected purposes as authorized by federal law, such as:

1. To "school officials" who have a "legitimate educational interest" in the student.
2. To another institution to which a student seeks or intends to enroll or is already enrolled if the disclosure is related to the student's enrollment or transfer.
3. In response to a lawfully issued court order or subpoena.
4. In connection with financial aid if the information is necessary to determine aid eligibility or to enforce the conditions of the aid.
5. To accrediting organizations to carry out their accrediting functions.
6. To organizations conducting studies for or on behalf of the school in order to develop, validate, or administer predictive tests, administer student aid programs, or improve instruction.
7. To authorized representatives of the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, and to State and local educational authorities in connection with an audit or evaluation of an education program or for compliance with Federal legal requirements related to those programs.
8. To appropriate officials in connection with a health or safety emergency.
9. Final results of certain disciplinary proceedings related to an alleged perpetrator of a crime of violence or a non-forcible sex offense.
10. To parents of a student regarding the student's violation of any Federal, State, or local law or of any rule or policy of the school governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21.

Parental Access to Records

At the postsecondary level, parents have no inherent rights to inspect their son's or daughter's educational records. Information regarding educational records is best obtained by direct communication between the parent and the student. Students may consent to release their educational records to parents, legal guardians, or other individuals by providing access using the Proxy feature in Self Service or completing the appropriate form in the Office of the Registrar. Such consent should be given in an uncoercive environment. Parents of a dependent student may challenge denial of access to educational records by producing the most current copy of Internal Revenue Form 1040.

Definitions

"Educational Record" refers to those records which are directly related to a student and are maintained by an educational institution.

"Directory Information" includes: student's name (including chosen or preferred first name); local and permanent address or hometown; telephone number; year of birth; major field of study; weight and height of student participating in officially recognized sports; dates of attendance at Oklahoma State University; degrees, honors, and awards granted or received and dates granted or received; academic classification such as freshman, sophomore, junior, senior, etc.; institutional electronic mail address; most recent educational institution previously attended; dissertation or thesis title; advisor or thesis/dissertation advisor; participation in officially recognized organizations, activities, and sports; parents' names and addresses (city and state only).

"School official" is defined as an individual currently serving as a member of the Board of Regents for the Oklahoma Agricultural and Mechanical colleges; the President of OSU and the administrators, faculty and staff they supervise; the President and CEO of the Alumni Association and President and CEO of the Oklahoma State University Foundation and the staff they supervise; the National Student Clearinghouse; and contractors, volunteers, and other non-employees performing institutional functions as school officials with legitimate educational interests.

"Legitimate educational interest" A school official has a "legitimate educational interest" if a review of a student's record is necessary to fulfill the official's professional responsibilities to the University. School officials may have legitimate educational interests both in students who are currently enrolled and in those no longer enrolled.

Location of Records

Several offices share responsibility for maintaining and releasing information pertaining to student education records. These include, but are not restricted to:

a. the Office of the Registrar for academic records,
b. the Office of Student Judicial Affairs for disciplinary records,
c. the Office of the Bursar for billing and payment records,
d. the Office of Scholarships and Financial Aid for scholarship and financial aid records,
e. the Human Resources office and Career Services office for employment/placement records, and
f. the Communications Service office for directory information.

Challenge the Content of Records

When a student seeks to challenge the content of the educational record, the following steps will be used:

1. The student will submit a written request to the official responsible for maintaining a record, with such request specifying the content being challenged, the grounds for the challenge, and the exact action being sought.
2. Within one month of the request, the official shall provide a written response. If the official grants the request, the change(s) will be made. If the request is denied, the letter will explain why and will inform the student they may add an explanation to the record and/or appeal the official's decision. If the student adds an explanation to the record, the explanation will accompany the part of the record to which the explanation pertains, whenever that part of the record is released.
3. An appeal may be filed by submitting a written request to the Vice President to whom the official responsible for maintaining the record reports.

Scholarships and Financial Aid

Office of Scholarships and Financial Aid

Chad Blew—Director
Rob Lofton—Senior Associate Director, Scholarships
Nathan Scoles—Senior Associate Director, Operations
Linda Millis—Senior Associate Director, Client Services
Robert Raab—Associate Director, Financial Student Success
Lori Boyd—Assistant Director, Fiscal Operations
Jennifer Etsch—Assistant Director, Loan Processing and Records Management
Charly Smith—Assistant Director, Enrollment Management Communications
Tammy Foote—Assistant Director, Client Services
Yan Song—Computer Operations Manager
Ashley Lorenz—Assistant Director, OSU-Tulsa

Campus Address and Phone:

119 Student Union
Stillwater, OK 74078-5061
Phone: 405-744-6604
Fax: 405-744-6438
Website: financialaid.okstate.edu (http://financialaid.okstate.edu)
E-mail: finaid@okstate.edu

Students who need financial assistance to attend college are encouraged to consider the many types of financial aid available through the OSU Office of Scholarships and Financial Aid. These programs include scholarships, grants, loans and part-time jobs. More than 80 percent of all OSU students receive some type of financial assistance to fund their education.

Scholarship Programs

Oklahoma State University offers tuition waiver scholarships and other cash scholarships to qualifying freshman, transfer, continuing and graduate students. In addition to the scholarships discussed here, students are encouraged to contact community and/or tribal agencies, as appropriate, to inquire about non-OSU scholarships.

OSU's scholarships are awarded on the basis of academic achievement, academic potential, leadership activities or community service, and many consider financial need. Scholarships are funded by various campus academic and administrative offices, the OSU Foundation, or in conjunction with private industry, private foundations, the Oklahoma State Regents for Higher Education (OSRHE) and the state of Oklahoma.

State and University agencies may establish a cap on total scholarship dollars a student may receive from state and University sources, precluding students from receiving funds that exceed legitimate educational costs.

- The Undergraduate Application for Admission and Scholarships serves as the scholarship application for all new undergraduate students.
- Scholarships for continuing undergraduate students are awarded based on academic performance, financial need or both. Continuing undergraduate students should also check with their academic college and departments regarding application procedures and deadlines.
- Graduate students seeking cash or tuition scholarships should contact their academic departments and the Graduate College regarding application procedures and deadlines.

Important Dates

- **November 1 prior to fall entering OSU:** The Early Opportunity Scholarship Deadline is Nov. 1, while all scholarship materials must be submitted by Feb. 1 to ensure scholarship consideration for fall-entering students. Make sure you've also submitted the FAFSA with OSU's school code of 003170.
- **February 1 prior to fall entering OSU:** To be considered for all scholarships at OSU, new undergraduates must apply for admission prior to the February 1 Priority Scholarship Deadline.
- **April 1:** Priority Scholarship Consideration (Transfer Students)
- **Entering OSU in the fall:** Final deadline to apply for admission and to submit new or updated academic information (GPA/test score) is the Friday before the fall semester begins.
- **Entering OSU in the spring:** Final deadline to apply for admission and to submit new or updated academic information (GPA/test score) is the Friday before the spring semester begins.

Tuition Scholarships

Tuition scholarships are awarded to both in-state and out-of-state students, and they vary in value and length. Tuition scholarships for in-state students are awarded to incoming freshman students who have attained high scholastic standing in high school. Tuition scholarships for out-of-state students are awarded based on several criteria, including academic accomplishments or being a child or grandchild of an OSU alumnus. Students receiving an out-of-state tuition scholarship have some or all of their out-of-state tuition charges waived and pay in-state tuition rates and the remainder of any out-of-state tuition not covered by this scholarship.

Transfer tuition scholarships are offered to outstanding students transferring to OSU from two-year and four-year colleges.

A student may receive only one tuition scholarship at a time. However, students may receive multiple cash awards such as the President's Distinguished Scholarship (PDS), President's Leadership Council (PLC) scholarship, or college and departmental awards. Each student with a multiple-year scholarship is required to meet specific renewal criteria to continue receiving his or her scholarship the following year (up to a specified maximum number of years of eligibility).

Cash Scholarships

A variety of cash scholarships are offered to OSU students at all levels of study. Funding for these awards comes from several sources, including the OSU Foundation, the Oklahoma State Regents for Higher Education, OSU academic colleges and departments, and private sources. Undergraduate students can find more information about OSU and non-OSU cash scholarships in the Office of Scholarships and Financial Aid, 119 Student Union, or online at financialaid.okstate.edu (http://financialaid.okstate.edu). Graduate students can find more information by contacting the OSU Graduate College.

Federal/State Aid Programs

Federal aid at OSU is awarded on the basis of demonstrated financial need. Each student who wishes to be considered for need-based assistance should submit the Free Application for Federal Student Aid (FAFSA) as soon after October 1 as possible to receive aid for the next academic year. Early application is encouraged since OSU receives

limited funding for the Supplemental Educational Opportunity Grant (SEOG) and Federal Work-Study (FWS) programs. Funding for state grants, including the Oklahoma Tuition Aid Grant (OTAG), is limited.

Students can apply for assistance by submitting the FAFSA electronically at fafsa.gov (https://studentaid.gov/h/apply-for-aid/fafsa/).

FAFSA information is used to determine demonstrated need for federal, state and institutional programs such as Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG), Oklahoma Tuition Aid Grants (OTAG), Federal Direct Loans, Federal Work-Study (FWS) and some tuition scholarships.

Programs are also available for students and families who do not demonstrate financial need. The Federal Direct Parent (PLUS) Loan Program, the Federal Direct Unsubsidized Loan Program and the Federal Direct Graduate PLUS Loan allow students and parents of dependent undergraduates, to borrow funds to meet educational expenses.

To be considered for financial aid, a student must:

1. File the FAFSA and demonstrate financial need, except for some loan and scholarship programs.
2. Be a U.S. citizen or eligible non-citizen.
3. Be enrolled as a degree-seeking candidate, or be pursuing a graduate or undergraduate certificate approved for financial aid eligibility (https://go.okstate.edu/scholarships-financial-aid/audience/non-degree-students/graduate-certificate-program.html) by the U.S. Department of Education.
4. Meet minimum satisfactory academic progress standards.
5. Have a high school diploma or GED.
6. Not be in default on any federal loan, not have borrowed in excess of the allowable limits and not owe a refund to any federal grant program (including the Oklahoma Tuition Aid Grant program).
7. Be prompt in responding to any requests for additional information made by the Office of Scholarships and Financial Aid.

Students and parents are encouraged to contact the Office of Scholarships and Financial Aid for information regarding financial assistance programs or to make an appointment with a financial aid counselor to discuss specific eligibility requirements. The office has information about programs and services online at financialaid.okstate.edu (http://financialaid.okstate.edu).

Grants

Undergraduate students who have not completed their first bachelor's degree are eligible to be considered for the Federal Pell Grant and the Federal Supplemental Education Opportunity Grant. Undergraduate students who are Oklahoma residents are considered for the Oklahoma Tuition Aid Grant (OTAG).

Federal Pell Grant eligibility is determined by the U.S. Department of Education by using a congressionally-approved formula and information from the FAFSA.

Federal Supplemental Education Opportunity Grants (SEOG) are awarded to students who demonstrate financial need as reflected in the FAFSA. Funding in this program is limited and is usually awarded to applicants who demonstrate the most financial need.

Undergraduate and graduate students who are or who will be taking coursework necessary to become elementary or secondary teachers may be eligible for the federal Teacher Education Assistance for College and Higher Education (TEACH) Grant. To be considered for this grant program, a student must complete a FAFSA. After completing the FAFSA, the student must meet with an OSU College of Education and Human Sciences certifying official to determine if the requirements for the eligible major and academic/professional criteria are met, as well as discuss academic and career implications from receipt of the TEACH Grant. For additional information regarding the TEACH Grant, please visit our website (https://go.okstate.edu/scholarships-financial-aid/types-of-aid/scholarships-and-grants/grants/teach-grant.html).

Federal Work-Study

The Federal Work-Study (FWS) program is designed to help students meet their educational expenses through part-time employment. The Office of Scholarships and Financial Aid determines award amounts on the basis of financial need from FAFSA information. While all Federal Work-Study student employees are paid at least the current federal minimum wage, the actual rate of pay depends on their qualifications and the types of jobs they hold.

Eligible students may be employed by any participating office or department at OSU or at an approved off-campus, non-profit agency.

Loans

OSU administers several federal loan programs for students who need financial assistance. These funds are available to students who meet the eligibility requirements of the various programs and are making satisfactory progress in their college work.

Federal loan programs consist of the Federal Direct Subsidized and Unsubsidized Loans, Federal Direct Graduate PLUS Loan, and the Federal Direct Parent (PLUS) Loan. The FAFSA is required to be considered for any of these loans.

Interest rates for the Federal Direct Loan programs are set annually by the federal government. The U.S. Department of Education pays the interest on the Federal Direct Subsidized Loan while the student is enrolled at least half-time and during the loan grace period (six months after ceasing half-time enrollment for the Direct Subsidized Loan).

Interest accrues, but can be deferred, for the Federal Direct Unsubsidized, Graduate PLUS and Parent PLUS loans.

Enrollment Requirements

To be considered for loan funds, undergraduates must be enrolled in at least six hours in the fall, spring or summer semester. These hours must be degree applicable and not considered excessive repeats. Undergraduate tuition scholarship recipients must be enrolled in at least 12 OSU hours to receive the award for the fall or spring semester; tuition scholarships are not available for the summer. Scholarship recipients should review their award information to determine whether additional hours of enrollment are required to retain the scholarship for the following year.

Graduate students must be enrolled in at least four hours in the fall or spring semester and at least two hours in the summer to be considered for financial assistance for that semester. These hours must be degree applicable and not considered excessive repeats. TEACH funding is available but limited for eligible students enrolled in fewer than four hours in the fall/spring or two hours in the summer. Graduate students receiving tuition scholarships from their academic departments or the Graduate College should contact the awarding office for enrollment requirements.

Federal and institutional aid recipients who are unsure of their eligibility for assistance based on their enrollment status should contact the Office of Scholarships and Financial Aid for clarification. Recipients of non-OSU scholarships should check with the awarding agency to determine the minimum enrollment required for payment.

Eligibility for financial assistance is related only to the total number of credit hours in which the student enrolls. Certifiable enrollment status, based upon a combination of enrollment and employment (such as a graduate assistant enrolled in six hours with a 50% graduate assistant appointment), only assists with the deferral of loan repayment, never qualification for aid.

Students are encouraged to review the policies related to financial aid eligibility for repeat courses and minors in the eligible coursework (https://go.okstate.edu/scholarships-financial-aid/types-of-aid/eligibility-for-federal-state-aid/eligible-coursework.html) section of the OSU Cost & Aid website. **All courses must count toward degree requirements and not be considered excessive repeats to be included for financial aid eligibility.**

Return to Title IV Funds Policy

The OSU Office of Scholarships and Financial Aid, in accordance with federal regulations, calculates the return of Title IV Funds for any student who receives Title IV aid and subsequently withdraws before the end of the enrollment period/term. The full policy, including official and unofficial withdrawals, aid considered in the calculation, institutional charges, attendance and earned/unearned percentage, unearned aid by the institution, unearned aid by the student, post-withdrawal disbursement, and notification of the results of the calculation, can be found on our website (https://go.okstate.edu/scholarships-financial-aid/types-of-aid/eligibility-for-federal-state-aid/withdrawal-and-return-of-title-iv-funds.html).

Academic Progress

The OSU Office of Scholarships and Financial Aid is required by federal regulation to monitor the academic progress of all students who apply for financial assistance. The official record of the OSU Office of the Registrar is reviewed to determine student compliance with the policy.

The policy for federal aid and state (OTAG) recipients includes three components. Students must:

1. not exceed a maximum number of hours allowed for completion of the degree program;
2. maintain a minimum cumulative Graduation/Retention Grade Point Average; and
3. maintain a satisfactory pace toward program completion, defined as successful completion of at least 67% of the total cumulative hours attempted.

A copy of the policy detailing the requirements is included with every award notice and is also available in the Office of Scholarships and Financial Aid and online (https://go.okstate.edu/scholarships-financial-aid/types-of-aid/eligibility-for-federal-state-aid/satisfactory-academic-progress.html).

Each undergraduate with a multiple-year scholarship is required to meet specific renewal criteria to continue receiving his or her scholarship the following year; the policy for each scholarship is included with the award letter and is available from the OSU Office of Scholarships and Financial Aid.

Recipients of athletic grant-in-aid must meet the eligibility requirements of the program.

Professional Education Certification

To receive financial assistance, students who are classified as non-degree students and who are also pursuing Professional Education certification must be enrolled in a required program for certification or recertification in elementary or secondary teaching in Oklahoma and be enrolled in at least six hours.

Professional Education students are eligible to apply for consideration in Federal Work-Study and Direct Loans. Due to the unique nature of the Professional Education program, students are encouraged to schedule an appointment with a financial aid counselor to discuss the required documentation needed for financial aid eligibility.

Approved Undergraduate and Graduate Certificates

Students who are pursuing an undergraduate or graduate certificate approved for financial aid eligibility by the U.S. Department of Education are eligible for the same aid programs as undergraduate and graduate students pursuing bachelor's, master's, doctorate, or professional degrees at OSU. Approved certificates (https://go.okstate.edu/scholarships-financial-aid/audience/non-degree-students/graduate-certificate-program.html) are listed on the web. Programs can be added or removed from this list as determined by the OSU Office of Academic Affairs, Graduate College and the U.S. Department of Education.

Prerequisite Course Work for Admission to a Graduate Program

To be considered for federal assistance, students generally must be enrolled in a recognized academic program leading to a degree or certificate. However, if a student is enrolled at least half-time in undergraduate coursework that is required for admission to a graduate program at OSU, the student may be eligible for loan consideration during a single period not to exceed 12 months in a lifetime.

Students are only eligible for Direct Loan consideration. Preparatory students who wish to be considered for assistance should schedule an appointment with a financial aid counselor to discuss their particular circumstances.

Special Academic Services, Programs and Facilities

Special Academic Services
Office of Student Success

Shannon Baker, PhD – Associate Provost for Student Success
Nick Holmes – Assistant Provost for Student Success

The Office of Student Success provides a variety of services aimed at helping students throughout their academic journey. With a special focus on first-year students, it offers centralized first-year advising and oversees the first-year seminar. Additionally, the unit houses a team of exploratory advisors to support any students exploring major options. Lastly, it provides tutoring and supplemental instruction for a variety of courses through the LASSO Center. For more information, please visit success.okstate.edu (http://success.okstate.edu) or contact 405-744-5333.

The following programs are offered through the Office of Student Success:

First-Year Advising

Our academic advisors provide exceptional support throughout the first year of a student's college journey. When students attend orientation and enrollment, they are matched with a first-year advisor who will work with them to develop a plan of study that suits their academic and personal goals. Students can meet with their advisor whenever needed throughout their first year at OSU. Academic advisors are students' go-to resource for help adjusting to new schedules, surroundings, and people.

Exploratory Advising

Our specialty advisors support students who are undecided or are still exploring major options. Students interested in changing their majors or adding a certificate or minor to their degree plan can also meet with our speciality advisors. We are equipped to help students who are unsure if their current major fits their values, interests, personality, and skills.

First-Year Seminar

In addition to academic advising, the Office of Student Success provides students with a First-Year Seminar (UNIV 1111) designed to help first-year students adjust to the demands of college life, learn how to become academically successful, explore various major and career options, and become aware of university rules and regulations. All first-year students at OSU take a common first-year seminar in their first semester of enrollment.

Academic Advising

Academic advising is a major function within the University and is designed to serve the student first and foremost. Advising assists students in developing their intellectual potential through effective use of all resources available at the University—academic, cultural and social. The role of the student's academic advisor is to:

1. assist in educational planning, including clarification of career and educational goals, curriculum planning and short-term course selection,
2. make appropriate referrals to campus support services,
3. provide information to prospective majors, and
4. prepare degree plans for graduating seniors and submit these to the respective college graduation certification office.

Advising is performed within each of the undergraduate colleges and in the Office of Student Success. Each college structures its advising system based upon the college's philosophy and perceived student needs.

Each advising unit has an office of student academic services to represent that unit in matters concerning undergraduate students. Students should contact their office of student academic services when questions arise regarding advising, academic programs and requirements, and academic support services.

The locations and phone numbers of the offices of student academic services are:

- Arts and Sciences, 213 Life Sciences East, 405 744-5658
- Education and Human Sciences, 106 Nancy Randolph Davis, 405 744-5053
- Engineering, Architecture and Technology, 110 Engineering North, 405 744-5276
- Ferguson College of Agriculture, 101 Agricultural Hall, 405 744-5395
- Professional Studies, North Hall 130, Tulsa, 918 594-8271
- Spears School of Business, 155 Business Building, 405 744-2772
- Office of Student Success, 103 Legacy Hall, 405 744-5333
- OSU-Tulsa Advising Services, North Hall 357, 918 594-8271
- Honors College, 101 Old Central, 405 744-6799
- Graduate College, 202 Whitehurst, 405 744-6368
- Center for Health Sciences, 1111 W. 17th, Tulsa, 918 561-8260
- College of Veterinary Medicine, 110 McElroy Hall, 405 744-2264

Students should keep in mind that while the University provides advising as a service and resource, the ultimate responsibility for identifying and completing degree requirements rests with the student.

LASSO Center

Nick Holmes—Assistant Provost for Student Success

The LASSO Center offers academic support through two main programs: the Paul Milburn Tutoring Program and supplemental instruction, which are available to all students at no extra cost. For more information about locations, hours of operation, or classes served, please visit lasso.okstate.edu (http://lasso.okstate.edu).

LASSO Center Paul Milburn Tutoring Program

The LASSO Center Paul Milburn Tutoring Program is an academic support service available to all students across campus. Highly trained and qualified tutors offer students individualized, one-on-one tutoring. Tutoring is available by appointment, both in person and virtually. For more information, please visit lasso.okstate.edu (http://lasso.okstate.edu) or contact the LASSO Center at 405-744-3309.

Supplemental Instruction (SI)

Supplemental Instruction (SI) is an academic support program that offers collaborative study sessions for specific courses. These sessions are led by undergraduate SI leaders who have previously earned an A in the course and are recommended by faculty. The SI leaders attend classes and work with course instructors to provide three weekly collaborative sessions, where they facilitate discussions and study activities that allow students to master course materials by working together in a cooperative learning environment. Students can find more information about SI and a list of current courses offering supplemental instruction at lasso.okstate.edu (http://lasso.okstate.edu).

Study Abroad

OSU students can add an international dimension to their degree program through education abroad designed to support specific academic and professional goals. International programs such as study, internships, research, and service-learning equip students with the skills and knowledge required for future leadership. By developing global competencies needed to engage with local, national, and global communities as a culturally perceptive citizen, participation in international education opportunities also expands key academic and career benefits, such as:

- Students who studied abroad were twice as likely to find a job quickly following the completion of their college studies.
- College graduates who studied abroad see a 25% higher average starting salary than those who did not study abroad.
- Nearly 60% of employers consider study abroad to be a valuable asset for an individual's career path.
- Study abroad participants are about 20% more likely to graduate on time than non-participants.

As part of Oklahoma State University's global engagement initiative, the University partners with over 60 universities abroad for semester and academic-year exchanges. There are also hundreds of options for students looking for summer break, spring break, and winter intersession options. The following program types allow students to have an international experience that aligns with their academic and professional goals.

- **Reciprocal Exchanges.** Students may earn OSU credit through reciprocal exchanges in over 30 countries in Europe, Asia and Latin America, and other regions. While participating in reciprocal exchange programs, students pay tuition and fees to OSU.
- **OSU Faculty-led Programs.** Students may also earn OSU credit by enrolling in short-term international courses offered by OSU college outreach units in countries such as Japan, the United Kingdom, France, Greece, Italy, Mexico, Ireland, and South Africa. Programs are typically held over winter break, spring break, and summer.
- **Affiliated/Approved Programs.** Students may earn transfer credit through participation in pre-approved study abroad programs offered by other U.S. universities or study abroad program providers. Students on affiliated programs pay fees directly to the provider.
- **Internship and Volunteer/Service Programs.** Students may also participate in non-credit work, internships, and volunteer/service learning opportunities abroad. These programs are offered as short-term experiences or semester-long immersion, often combined with academic study in the host country.
- **National Student Exchange Programs.** The National Student Exchange (NSE) enables OSU students to spend a semester or year at one of over 170 colleges in the United States; its territories of Puerto Rico, Guam, and the U.S. Virgin Islands; as well as in Canada. More information can be found at http://catalog.okstate.edu/about/special-academic-services-programs-facilities/#specialprogramstext.

Financial assistance is available for many programs through scholarships as well as federal grants and loans. In many cases students may use federal financial aid to offset the cost of an academic program abroad. Students may apply for scholarships through the OSU Center for Global Learning, a unit of OSU Global, who stewards several university and donor-funded awards. Scholarships such as the Provost's Study Abroad Scholarship, the Don and Cathey Humphreys Study Abroad Scholarship, and the John S. Wilcha Experiential Travel Award are examples of funding opportunities for students participating in credit-bearing activities abroad. Information on these national and local scholarships is available at https://global.okstate.edu/studyabroad/osu_student_resources/finding_funding/index.html (https://global.okstate.edu/studyabroad/osu_student_resources/finding_funding/) or through the Center for Global Learning office, 056 Student Union, 405.744.8569.

For more information on studying, working, teaching, or volunteering abroad contact the Center for Global Learning, 056 Student Union, e-mail abroad@okstate.edu or visit the website https://abroad.okstate.edu (https://abroad.okstate.edu/).

Nontraditional and Transfer Student Support

The Office of Nontraditional and Transfer Student Support offers a wide range of services to assist transfer students as they transition into OSU and through graduation including academic support related to transferring between institutions, secondary academic advising while attending, informational workshops and seminars, assistance with understanding how and where your credits transfer in, social activities and events, and many other resources. Students are able to meet with staff virtually and in person. The Office connects students with their admissions counselors, academic colleges and personnel where degrees of interest are housed, student organizations, and other services as needed.

In addition to the services offered, the Office of Nontraditional and Transfer Student Support houses:

- Military-Affiliated Student Support Center
  - Study and lounge space;
  - Computers and free printing;
  - Free snacks, coffee, soda, and more;
  - Peer engagement.
- Transfer Student Ambassador Program
  - Open to all Transfer Students who have completed at least one semester at OSU;
  - First point of contact for new and returning transfer students;
  - Leadership Opportunities.
- Tau Sigma National Honor Society
  - Benefits of membership include Induction Ceremonies, a cord and/or stole to wear at graduation, a local and national network of peers, scholarship and leadership opportunities.

The Office of Nontraditional and Transfer Student Support is located in 061 Student Union and can be contacted at transferstudentservices@okstate.edu or 405-744-8118.

Military-Affiliated Student Support

The Office of Military-Affiliated Student Support is dedicated to helping veterans get the resources they need to succeed in a classroom environment. The Office provides comprehensive support to student-veterans, active duty, guard/reserve students and their families in an atmosphere of respect for their service to the nation. The Office is committed to helping the veteran and military-affiliated community achieve academic excellence at the university and occupational success once they leave. The Office hopes to further the cause of veterans on campus and in the community through education, administrative services, job advisement, community outreach and peer fellowship. Specific services offered include:

- Student veteran advocacy;
- University support services referrals;
- VA counseling and health services referrals;
- Computer and printing resources;
- Peer support;
- Lounge study area, refreshments;
- Veteran and Community Based Events;
- Specific needs-based test proctoring;
- Work Study via The VBA Work Study Management System.

The Office of Military-Affiliated Student Support is located in 061 Student Union and can be contacted at militaryveterans@okstate.edu or 405-744-8118.

University Assessment and Testing (UAT)

Ryan Chung, PhD—Assistant Vice Provost for Accreditation, Assessment, and Testing

University Assessment and Testing (UAT) at OSU supports institutional, college, and academic program improvement and provides public assurance of academic program quality and accountability by documenting assessment progress toward meeting educational goals as required by accreditation agencies (Higher Learning Commission, HLC) and the Oklahoma State Regents for Higher Education (OSRHE). Assessment involves creating measurable student learning outcomes, collecting data through various direct and indirect methods, analyzing and reviewing data, and, most importantly, using data to improve student learning. Assessment is an integral part of the institution's commitment to enhance and sustain academic program quality and students' overall educational experiences.

The OSU Assessment and Academic Improvement Council (AAIC) guides the institution's assessment plan and coordinates with UAT to facilitate assessment processes for all academic programs. Membership of the AAIC consists of faculty from each college and representatives from the offices of Student Affairs, Institutional Research and Analytics, University Libraries, and the Student Government Association. The AAIC supports assessment by providing resources to:

1. Measure the effectiveness of all academic programs,
2. Utilize information provided by assessment processes to improve student learning, and
3. Determine the overall educational impact through assessment processes of the university learning experience on all students.

Assessment activity at OSU, coordinated by UAT, includes four primary initiatives:

1. Entry-Level Placement Assessment (ELPA) assists OSU advisors and faculty in making placement decisions to give students the best chance of academic success.
2. General Education Assessment evaluates student achievement of institutionally recognized general education competencies, including written communication, critical thinking, diversity, professionalism, ethics, and information literacy. UAT works with the Committee for the Assessment of General Education (CAGE) to improve efforts on general education assessment.
3. Program Student Learning Outcomes Assessment evaluates achievement of student learning goals in academic programs.
4. Survey development and consultation, data collection, analysis, and reporting on student engagement, student satisfaction, and alumni perceptions of academic programs and services at OSU while also supporting various research initiatives across campus.

Results of these assessment initiatives and efforts provide significant information for improvement of academic programs and services, of students' achievement of learning outcomes, and of students' satisfaction with their educational experience.

UAT submits reports to the OSRHE according to a proposed schedule and timeline that summarize the assessment initiatives listed above. These reports include program student learning outcomes, assessment methods used, measured criteria and expectations, results, and uses of assessment findings (action plans). Visit https://assessment.okstate.edu/ (https://uat.okstate.edu/assessment/) for more information on assessment at OSU.

The OSU Testing Center, within UAT, provides testing and evaluation support services for OSU students and faculty on the Stillwater campus as well as to the wider local and state communities. Oklahoma State University course exams for online and in-class courses are proctored at the OSU Testing Center, as are exams for students who receive testing accommodations through Student Accessibility Services (SAS). Some common testing accommodations include separate room testing, extended testing time, adaptive technology, and/or trained staff assistance to students requiring a reader or an amanuensis.

The OSU Testing Center also administers exams for prospective students, including the ACT On-Campus and the Test of English as a Foreign Language (TOEFL). The online OSU Reading, English, and Math Placement Exams are available to current and future undergraduate students for course placement in reading, writing, and mathematics courses. College-Level Examination Program (CLEP) exams are administered to current and prospective students who wish to earn college credit for specific courses. Many state, national, and other certification exams are offered at the OSU Testing Center, including the Graduate Record Exam (GRE), PRAXIS, Graduate Management Admission Test (GMAT), Pearson Vue Exams, PROV Exams, and Federal Aviation Administration (FAA) certifications, amongst others. Visit https://testing.okstate.edu/ for more information on the exams available at the OSU Testing Center.

For more information on assessment and testing at OSU, visit the UAT website at https://uat.okstate.edu/.

Special Programs

Boone Pickens Legacy Experience

The Boone Pickens Legacy Experience (https://go.okstate.edu/boone-pickens-legacy/) is a world-class exhibit located in the West End Zone complex at Boone Pickens Stadium. Funded by the Boone Pickens Foundation, the museum offers an immersive experience into the life of Boone Pickens, shared through interactive and visually rich exhibits and an expansive collection of artifacts, gifts, awards, mementos and memorabilia.

The mission of the museum is to honor Pickens' legacy by inspiring future generations through the celebration of his remarkable life, achievements and philanthropic contributions, fostering a spirit of innovation, resilience and generosity. In addition to showcasing Pickens' contributions to business and society, the museum serves as a dynamic hub for learning, innovation and leadership development.

Center for Hospitality and Tourism Research

Brijesh Thapa, PhD—Professor & Head, Carl & Marilynn Thoma Distinguished Chair, Interim Director, Center for Hospitality and Tourism Research

The OSU Center for Hospitality and Tourism Research (CHTR) in the School of Hospitality and Tourism Management is dedicated to hospitality and tourism research and supports all areas of inquiry that directly and indirectly affect hospitality and tourism operations and management. The Center links cutting-edge research with the critical needs and demands of the global hospitality and tourism industry. Through collaborative efforts between the university, the Oklahoma Tourism and Recreation Department and hospitality industry, the CHTR supports research, instruction, and extension/outreach activities essential to faculty scholarly development, student learning, industry practice and local community development. The CHTR positions the School of Hospitality and Tourism Management as the premier provider of hospitality and tourism research excellence. For more information, visit https://business.okstate.edu/departments_programs/htm/.

Doel Reed Center

Building on the land-grant heritage of Oklahoma State University, the Doel Reed Center (https://doelreed.okstate.edu/) in Taos offers multidisciplinary programs in teaching, research and outreach focused on the arts and culture of the Southwest United States to students, alumni, friends and the communities of northern New Mexico.

The Doel Reed Center offers courses for academic credit as well as leisure learning classes. The Center also sponsors opportunities for OSU faculty and visiting scholars to pursue creative and scholarly work in Taos.

English Language and Intercultural Center

The English Language and Intercultural Center (ELIC) was established in 1970. The ELIC's mission is to equip its students with the English language proficiency, academic skills, and intercultural knowledge necessary to gain entrance and achieve success at Oklahoma State University or any American institution of higher education. In addition to its regular programming, the ELIC offers fully customizable English language and intercultural training to students, faculty, programs, businesses, and government sponsoring agencies seeking to succeed in the United States academic and cultural context.

The ELIC has taught students from as many as 30 different countries in a regular semester. Students' academic backgrounds vary from high school graduates to career professionals who plan on beginning or continuing their higher education studies. The ELIC offers programs that last 8 weeks and 16 weeks; however, upon request arrangements might be made for different durations.

For more information, please contact the ELIC.

English Language and Intercultural Center
Oklahoma State University
307 Wes Watkins Center
Stillwater, OK 74078
Phone: 405-744-7519
Email: osu-eli@okstate.edu
Website: https://global.okstate.edu/elic/index.html (https://global.okstate.edu/elic/)

Ethics Center

The Ethics Center at Oklahoma State University is committed to promoting moral reflection and deliberation in personal, professional, community and civic life. The Ethics Center does not seek to dictate values; rather, we attempt to meet our organizational commitments by organizing and promoting workshops, symposia, conferences and other forums where those interested, including professional ethicists, faculty, students, and the general public, can study and discuss relevant topics. In addition, we will attempt to support research relating to applied and professional ethics. Finally, the Ethics Center will provide Oklahoma State University with a centralized office that students, faculty and the public can contact to find out what ethics classes and resources are available.

The Ethics Center is sponsored and operated by the Philosophy Department at Oklahoma State University and overseen by a standing committee of faculty members having research and teaching interests in applied and professional ethics.

Gerontology Institute

Alex Bishop, PhD—Associate Professor and Gerontology Program Coordinator

The Gerontology Institute is housed in the Department of Human Development and Family Science. The Gerontology Institute operates in conjunction with a gerontology masters program committed to promoting excellence in the study and understanding of aging across the life course through scientific research, education and service.

The Gerontology Institute was created in response to a widespread interest in course offerings in gerontology. Students can receive an MS in Human Development and Family Science with an option in gerontology. Undergraduates may earn a BS in Human Development and Family Science with a professional track in aging services within the child and family services option. An undergraduate gerontology minor is also offered. Students wanting to attain an MS with an option in gerontology may complete the on-campus program in HDFS or the Great Plains Interactive Distance Education Alliance online gerontology program (Great Plains IDEA) at OSU. Students may also seek a graduate certificate in gerontology through the on-campus program in HDFS. For more information on the online gerontology program see https://

osuonline.okstate.edu/programs/graduate/gerontology-master-of-science.html.

The Gerontology Institute serves as a link between the University and the community in the field of aging. For more information, visit https://education.okstate.edu/departments-programs/gpidea/gerontology.html or e-mail humansciences.hdfs@okstate.edu.

Mathematics Learning Success Center

The Mathematics Learning Success Center (MLSC) offers FREE drop-in tutoring for all OSU and NOC students enrolled in MATH-prefix courses. Located on the 5th floor of the Edmon Low Library, the MLSC is a welcoming, inclusive environment for studying mathematics. Our undergraduate peer tutors work to empower students to succeed in their mathematics classes. We are committed to helping students recognize their strengths, enhance their mathematical skills, boost their confidence, and further develop their ability to learn independently. Other services include high school tutoring hours, exam review videos, guided study groups, and special tutoring for some upper-division math classes. For more information, visit https://cas.okstate.edu/mlsc/ or call 405-744-5818.

National Student Exchange

The National Student Exchange (NSE) enables OSU students to spend a semester or year at one of over 170 colleges in the United States; its territories of Puerto Rico, Guam, and the U.S. Virgin Islands; as well as in Canada. As part of OSU's global engagement efforts, NSE provides many students the ideal first experience living and studying in a culture different from Oklahoma. The National Student Exchange is also an opportunity for students in highly-structured programs to study away for a semester and still make progress toward graduation. It also provides students with meaningful cultural-learning opportunities within the USA and Canada.

NSE enables students from member colleges and universities to attend OSU while paying their own university's tuition and fees or while paying OSU resident tuition rates. OSU students may have two payment options when participating in the National Student Exchange, Host or Home Pay:

- In Host Pay, the student temporarily transfers to a host university and pays resident tuition and fees there, as well as living expenses. While federal financial aid applies, OSU-specific scholarships do not. All credit will be awarded as transfer credit.
- In Home Pay, the student remains enrolled at Oklahoma State University while studying at a host university. The student pays tuition and fees at OSU, just as if they were on campus, but all housing, meals, and other costs will be paid at the host university. Most OSU scholarships and financial aid will apply as usual on this option.

For additional information and application materials, visit https://global.okstate.edu/studyabroad/national_student_exchange.html, contact the Center for Global Learning, 056 Student Union or e-mail abroad@okstate.edu.

Office of Individual Study

The Oklahoma State University Office of Individual Study offers online, self-paced undergraduate courses in multiple time frames including 8 weeks, 16 weeks, and 12 months. Individual Study courses offer college credit and are ideal for individuals with busy schedules who desire a more flexible, self-paced format such as those working full-time, juggling family responsibilities, military members, and incarcerated individuals. Individual study students do not need to be admitted to OSU and includes in-state, out of state, and out of country students.

OSU students can also enroll in Individual Study courses. Browse OSU's class schedule for "independent study." Yearlong courses have open start dates so students may begin a course anytime. Courses are delivered through the OSU learning management system, Canvas; however, students who do not have Internet access can participate in courses using print-based materials.

Call 405-744-6390 or visit is.okstate.edu (http://is.okstate.edu) for class descriptions, costs, and enrollment information. For information on all OSU online courses and degrees, visit osuonline.okstate.edu (http://osuonline.okstate.edu), call 405-744-1015, or email osuonline@okstate.edu.

OSUTeach

The OSUTeach program is designed to increase career options for majors in science and mathematics by preparing students as secondary teachers. OSUTeach offers a dual degree four-year program. Students will receive a STEM degree (options in biology, chemistry, geology, mathematics, physics, and zoology) which leads to a B.S. in the selected discipline **and** a secondary education degree. Students will also earn their teacher certification at the secondary level. OSUTeach is a collaboration between the College of Education and Human Sciences and the College of Arts and Sciences. OSUTeach students begin supervised teaching in K-12 classrooms during their first semester in the program and continue these field experiences throughout their coursework, which culminates with apprentice teaching. Interested students begin the program by enrolling in SMED 1012, Inquiry Approaches to Teaching.

Prairie Arts Center

The Prairie Arts Center (https://artscenter.okstate.edu/) is a vibrant community art center featuring 14,000 square feet of dedicated creative space that is managed by Oklahoma State University in partnership with the city of Stillwater.

Prairie Arts Center's mission is to encourage the exploration of art and promote creativity for all ages. Adult classes, open to ages 15 and older, offer a wide variety of options in pottery, metalsmithing, glass, printmaking, drawing, and painting. Youth programming is also offered. Most classes are offered monthly, with guest artists regularly leading specialized workshops and sharing new techniques.

Located in downtown Stillwater, Prairie Arts Center is recognized as a key attraction within the Downtown Stillwater Cultural District. The center partners with faculty at the university to sponsor activities for OSU students, such as a mural competition. The Center maintains strong outreach programs with the OSU Museum of Art, the Stillwater Senior Center, Stillwater Public Schools, and a variety of other community partners. Prairie Arts Center also hosts the Stillwater Arts Festival, a two-day event held the third weekend in April that features more than 50 regional artists.

Pre-Professional Health & Law Support Services

Pre-Professional Health & Law Support Services helps students explore and prepare for careers in healthcare, law, medicine, and veterinary medicine. All OSU students—regardless of major—have access to individualized support at every stage of the pre-professional journey,

from early career exploration through application and matriculation to professional programs.

There is no required or preferred major for students pursuing professional programs in these fields. Students are encouraged to select a major based on their academic strengths and personal interests. Doing so provides a strong academic foundation and allows students to demonstrate their skills and passions through their chosen field of study.

Students benefit from an integrated support network that includes academic advisors, faculty, and campus partners across disciplines. This collaborative, interdisciplinary approach helps students connect their coursework, campus involvement, and career goals in meaningful ways.

To learn more about available services, developing as a competitive applicant, or to schedule an appointment, visit preprofessional.okstate.edu (https://preprofessional.okstate.edu/). The office is located in 040 Student Union Basement and can be reached at 405-744-9965.

Psychological Services Center

The Psychological Services Center was established in 1971 as a training, service and research facility at Oklahoma State University. It is operated by the Department of Psychology through the College of Arts and Sciences. It is located in 118 Psychology Building on the OSU campus. The building is accessible to the handicapped.

Services are provided to children, adolescents and adults and are available to residents of Stillwater and the surrounding community as well as OSU students, faculty and staff. The Center offers a variety of psychological services such as but not limited to: adult individual and group therapy; parent counseling and training; child therapy, including treatment of disruptive childhood behaviors, phobias and anxiety disorders; relaxation training; assertiveness training; stress management; depression; intellectual and personality assessment; assessment of attention deficit and learning disorders; and school consultation.

The Center's staff includes doctoral students in the Clinical Psychology training program and is accredited by the American Psychological Association. The staff also includes supervising clinical psychologists from the Department of Psychology. Although the exact composition of the staff may change from year to year, the staff is generally composed of individuals from diverse ethnic and cultural backgrounds. There is a sliding scale fee structure based on one's financial situation.

The Center schedules appointments from 8:00 a.m. until 7:00 p.m. Monday through Thursday. On Friday, appointments are scheduled from 8:00 a.m. until 5:00 p.m. Appointments can be made by contacting the Center at 405.744.5975. More information can be found at http://psychology.okstate.edu/osupsc (http://psychology.okstate.edu/osupsc/).

Ashley Cole, PhD—Interim Clinic Director

Speech-Language-Hearing Clinic

Ramesh Kaipa, Ph.D.—Department Head
Kristi Carpenter M.S., CCC-SLP—Clinic Manager, OSU-Stillwater
Megan Whitehead, M.S., CCC-SLP—Clinical Coordinator, OSU-Tulsa

The OSU Speech-Language-Hearing Clinic provides comprehensive clinical services to the OSU/Stillwater and the Tulsa communities. We are dedicated to providing the highest standard of care in speech-language pathology and audiology. Nationally-certified and state-licensed clinical faculty supervise graduate student clinicians as they provide a wide range of diagnostic and therapy services, including early intervention. Treatment is provided for a variety of communication disorders, delays and/or differences across the lifespan including:

- Articulation and Phonological disorders
- Language disorders
- Stuttering
- Autism
- Voice disorders
- Swallowing disorders (also, feeding disorders)
- Language, cognitive, and other communications disorders resulting from stroke, head injury, dementia, and other neurological impairments
- Dialect variations
- Hearing impairment, including early intervention
- Reading and writing disorders

The OSU Speech-Language-Hearing Clinic is located in Social Sciences and Humanities on the OSU campus. Fees are charged for services with special rates provided for all OSU students, faculty, and staff. A sliding fee scale for services ensures that individuals are served regardless of their ability to pay. To schedule an appointment please call 405.744.6021.

The OSU-Tulsa Speech-Language-Hearing Clinic is located in Rm. 391 of the North Classroom building at 700 N. Greenwood, Tulsa. To schedule an appointment at the OSU-Tulsa Speech-Language-Hearing Clinic, please call 918-594-8199.

The Center for Family Resilience (CFR)

The Center for Family Resilience (CFR) is an initiative of Oklahoma State University's Department of Human Development and Family Science, College of Education and Human Sciences, and the OSU-Tulsa campus. The vision of the CFR is that every family be fully equipped to support members in achieving their full personal and social potential.

Located on the Tulsa Campus, the mission of the CFR is to build family resilience in Oklahoma and beyond through innovative research on everyday issues affecting families, and by translating research results into effective programmatic or policy solutions. The CFR's mission is implemented through three main programs. The community engagement program builds bridges among community agencies, family and social service providers and CFR affiliate researchers. The research program coordinates the activities of affiliate researchers to create knowledge of individual and family resilience and the factors shaping resilience. The translation and education program emphasizes dissemination of acquired knowledge and the transfer of that knowledge to everyday professional practice.

The Center for Family Services

The Center for Family Services is sponsored by the Department of Human Development and Family Science in the College of Education and Human Sciences.

The Center's dual mission is to provide high-quality, low-cost marital and family therapy services to the public and to provide a high-quality training environment for master's degree students specializing in marriage and family therapy. Because the Center for Family Services is a training facility, advanced graduate students in marriage and family therapy conduct the majority of the therapy. While conducting therapy, therapists-

in-training are under the direct supervision of clinical faculty members. The Center allows for video recording of sessions and for observation of sessions by clinical supervisors.

The Center for Family Services is open to individuals, couples or families seeking help with personal or relationship issues. Presenting issues may include marital concerns, family violence, adjustment to divorce or other life-changing events, child behavior problems, parenting concerns, anxiety and depression, and family reunification. Fees are determined on a sliding fee scale based on income and family size.

Appointments are available on request. While appointments are available during daytime and evening hours, most appointments are scheduled on Wednesday and Thursday evenings.

The marriage and family therapy program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) of the American Association for Marriage and Family Therapy.

The Institute for Teaching and Learning Excellence (ITLE)

Christine K. Ormsbee, PhD—Vice Provost

The *Institute for Teaching and Learning Excellence* supports all instructors in the design and delivery of high-quality instruction. Employing an array of multimedia services, ITLE staff supports the integration of the most current technologies with effective classroom pedagogy. ITLE provides a variety of professional development opportunities such as “Preparing Online Instructors” and “Scholarship of Teaching and Learning,” as well as "OSU Faculty Reads," a monthly book reading program. In addition, ITLE cooperates with campus departments on teaching and learning-related research projects to provide the professional development requested.

ITLE produces still image and video-based educational content from recording and editing classroom presentations for delivery via multiple media formats, to distributing live, interactive classes world-wide from high-tech classrooms across the campus. The Creative Services department within ITLE produces high-end graphics, animations, and interactive content that can stand-alone or be integrated within videos to provide visual clarity for any subject or concept. ITLE houses a high definition, broadcast-quality television production department, which is used for everything from recording classroom presentations to the 4K production of teleconferences, documentaries, video training presentations and public service announcements for the University and for both government and commercial agencies. Also, faculty can record presentations in a broadcast-quality studio or in a more relaxed office-like setting in a Camtasia/Webcam studio.

The ITLE building has a large multi-media conference room and a smaller flexible classroom available for professional development events and other campus activities. ITLE provides equipment and staffing to support web-based courses as well as technical assistance, for the Canvas Learning Management System. ITLE also manages the Campus Streaming TV system, working with the streaming company to provide educational and entertainment programming of interest to the OSU community.

The ITLE facility provides an outlet for student internships in graphic design, computer animation, production, and engineering fields, and has agreements with several departments across campus for credit-based experiences supervised by their full-time, professional staff. In addition, ITLE provides part-time employment for some students each year in many of their departments.

For more information, call 405.744.1000, or visit itle.okstate.edu (http://itle.okstate.edu/).

Writing Center

Since 1976, members of the Oklahoma State University community—students, faculty and staff—have found writing support from the tutors at the Oklahoma State University Writing Center. The OSU Writing Center aims to create well-developed and effective writers regardless of skill level or background. Writing Center tutors help writers understand and practice many useful strategies—from brainstorming to drafting to editing techniques.

Appointments for the OSU Writing Center in 440 Student Union, satellite locations, and online options (online/synchronous, e-tutoring/asynchronous) can be scheduled at osuwritingcenter.okstate.edu (http://osuwritingcenter.okstate.edu). Check the Writing Center website for appointment times and availability. Writers may call 405.744.6671, or direct questions to writingcenter@okstate.edu.

Special Facilities

Bartlett Center for the Visual Arts and the Gardiner Gallery of Art

The Bartlett Center for the Visual Arts houses the main Art Department office, the Gardiner Gallery of Art, the Visual Resource Center (VRC), and classrooms/studios for art history, painting, drawing, visual thinking: image and surface, jewelry/metals, photography and graphic design. In addition, our three large computer labs are located here and allow for all levels of digital work on both MACs and PCs. New MAC computers were installed in these labs in 2020 and were updated in 2023. Originally the building was the first women’s dorm on campus. Later named for Maude Gardiner—a pioneer in home economics—it was used for many different purposes over the years until a gift from Pete and Pat Bartlett made it possible to renovate it for the Department of Art in 1984. The other Studio Art areas—ceramics, sculpture, printmaking and visual thinking: form and space—are housed in the Visual Arts Annex at the northwest corner of Ridge Drive and McElroy Road, which was built in 2002. Equipment updates and improvements to the facilities in the Bartlett Center occur on a regular basis. In 2017, a new small computer lab was created in BC 104; in 2015 a major renovation transformed the VRC into a technology center serving all students in the department. Computers are updated in the labs every three years.

Maude Gardiner continues to be recognized through the Gardiner Gallery, which serves both OSU students and the greater Stillwater community. Gallery programming includes student and faculty exhibitions as well as exhibitions of international and national artists. The gallery also features faculty and student curated shows and traveling exhibitions. For current information about Gardiner Gallery exhibitions and hours, visit the gallery's page on the Art Department's website: https://cas.okstate.edu/department_of_art/gardiner_gallery_of_art.html or visit the gallery on the following social media platforms: facebook.com/GardinerArtGallery/. (https://facebook.com/GardinerArtGallery/)

The Biology Learning Resources Center

The LRC, which serves as a study area for life science students, especially those taking the introductory biology course. Here students may use computer tutorials, review sample tests and papers, examine

experiments or meet with a Teaching Assistant or study group. The LRC is located on the third floor of Life Sciences West and is maintained by the Department of Integrative Biology.

The Cleo L. Craig Child Development Laboratory

The Department of Human Development and Family Science has a rich tradition of excellence in early childhood education. The Child Development Laboratory was established in 1924. The laboratory presently resides in a facility opened in 1983 and renovated in 2010. The program serves as a field placement for early childhood education majors. Equipped with observation booths, the Child Development Laboratory is also used as a site for observation and interpretation of human growth and development by students in courses throughout the university. Research on developmentally-appropriate practice, children's learning and development, and the preparation of teachers is conducted in the facility. The Child Development Laboratory is licensed by the Department of Human Services and is accredited by the National Association for the Education of Young Children. The program offers planned learning activities that are developmentally appropriate and designed to model best developmental practices; frequent and positive interactions between children and students; nutritious meals and snacks; regular communication with parents; positive guidance techniques; high teacher-child ratios; experienced Early Childhood Education degreed staff; and on-going systematic programming.

The program provides the highest quality of early childhood education to children with and without developmental disabilities by providing exemplary services based on recommended practices to young children with diverse abilities and their families. The Child Development Laboratory provides family-centered services designed to meet the individualized needs of all children and families; offers a blend of educational and therapy services within the context of a developmentally-appropriate curriculum; and prepares children for their next educational environment.

Subject to availability, families have the opportunity to enroll in this model early childhood program. Children enrolled in the program range in age from 12 months through six years of age.

Collection of Vertebrates

The OSU Collection of Vertebrates (COV) is housed in Life Science West and maintained by the Department of Integrative Biology. It includes specimens over 120 years old and consists of collections of fishes, amphibians, reptiles, birds, mammals and frozen tissues. The Collection of Fishes maintains more than 30,000 lots of specimens, mostly from Oklahoma and other Plains states, but also includes one of the world's largest collections of rare Nepalese fish. The Collection of Amphibians and Reptiles includes approximately 12,000 specimens and houses among the largest collections of the rare Oklahoma salamander and the grotto salamander. The Collection of Birds houses 2,500 skins, are from Oklahoma and includes the oldest specimens that date from the 1880's. The first mammal catalogued into the Collection dates from 1924 and now includes more than 13,000 specimens from every county in Oklahoma, all 50 states, and 50 other countries; every continent except Antarctica. The Collection is one of the most taxonomically diverse collections at any university in the U.S. Among the most significant components of the Collection of Mammals are the more than 1,000 specimens from Ethiopia. All specimens are valuable for their use in teaching classrooms and for research.

Department of Design and Merchandising Teaching and Research Laboratories

Design and Merchandising has a long tradition of incorporating laboratories that realistically simulate industry environments into teaching. Teaching labs include the Sewn Products Production Lab, the Sewn Products Cutting Lab, Gerber Tech Lab and the Textile Product Evaluation Lab. Equipment in these labs include: Twining-Alberts tensile testing machine; pilling tester machine; air vapor hood; wear testing equipment; heavy-duty industrial sewing machines; sweating guarded hot plate; Kawabata Evaluation System (KES); thickness gauges; spectrophotometer, cutting tables, and pressing stations. Product development is enhanced with current digital industry technologies including Browzwear's V-Stitcher, Trapdoor's Stage, Style 3D, Seddi's Textura, AccuMark pattern design system (PDS), Gerber Technology – automated cutter, pattern digitizer, AccuMark, 3-D pattern visualization software, and Infinity plotters

Design and Merchandising also employs laboratories for conducting research. The Mixed Reality Lab at Oklahoma State University is a cutting-edge facility that integrates advanced technologies with spatial design and immersive experiences. Specializing in Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence (AI), the lab features state-of-the-art equipment, including Meta Quest VR devices, Microsoft HoloLens for AR applications, and a range of 3D printers, such as the Modix 120 XL for large-scale architectural models and the Ender Pro for detailed, small-scale fabrication. The adjoining Mixed Reality Classroom is equipped with 25 VR stations, allowing for immersive, hands-on learning experiences and collaborative projects. The lab fosters interdisciplinary collaboration, pushing the boundaries of design education and addressing complex design challenges through the power of immersive technology.

A Human Factors and Ergonomics area focuses on understanding the physical and cognitive capabilities and limitations of different populations under various conditions. Equipment in this area includes: Vitus SMART (Human Solutions) 3-D body scanner, Polyworks (V10) software, Move 4D motion capture system surface electromyography anthropometers, skin & core temperature measurement devices, heart rate monitors, and related equipment providing the capacity to conduct eye-tracking research. The Human Environmental Factors Lab is designed to accelerate the development, validation and adoption of interior design research for older adults and individuals living with physical and cognitive challenges. Students and faculty perform adaptable, state-of-the-art human factors and technology research, as well as receive support in new pedagogocial approaches in order to prepare a new generation of professionals in design, healthcare and the social sciences. Technology testing includes the TEMI autonomous robot for aid in home navagation and task completion as well as the development of CATcare, a wearable assistive technology prompting system for individuals living with dementia at home.

For more information on DM laboratories and equipment, contact the Department of Design and Merchandising at 405-744-5035.

Department of Wellness

The Department of Wellness is committed to creating a healthy campus culture for students and employees. The department offers programs and services for complete health and wellness of the mind and body for faculty, staff, students and community members.

Wellness Programs

- **Fitness Programs** offer a variety of fitness programs and classes with multiple formats for every skill level. There are more than 100 classes offered each week, including F45, yoga, dance, spin, kickboxing, martial arts, abs, boot camp and more. Classes are offered at the Colvin Recreation Center, Seretean Wellness Center and Student Union.
- **Intramural Sports** serve more than 3,500 participants weekly in more than 50 sporting activities yearly. Whether you're looking for one night of competition, a weekend, or an entire season, we've got an intramural sport for you. With competitive and recreational leagues, you can play to win or just for fun.
- **Outdoor Adventure** provides opportunities for fun, adventure, education and excitement. Through trip and workshop programs Outdoor Adventure emphasizes environmental awareness, personal development, risk management training, wilderness travel and fun. With a variety of regional and national trips as well as workshops at all skill levels, staff members strive to provide opportunities for the whole community. In conjunction with trips and workshops, Outdoor Adventure offers an extensive low and high elements challenge course and an indoor climbing facility at the Colvin Recreation Center. To support courses and the local community, the outdoor equipment rental shop, at the base of the climbing wall, provides access to everything from tug-of-war ropes to sleeping bags. Whether it is exploring the Grand Canyon over spring break, spending a day at the challenge course or participating in a climbing competition, the common elements at Outdoor Adventure are quality, leadership and fun.
- **Club Sports** are recognized OSU student organizations on campus. We offer approximately 40 club sports that are designed to promote a non-varsity sport or recreational activity. Clubs differ in scope and purpose, while some clubs exist to be social and others to compete against universities throughout the region and county. Generally, a club sport program provides three basic opportunities to its members: instruction, recreation and competition.
- **Health Education Programs** strive to meet the health needs and issues of the community at Oklahoma State University through effective programming and research. We serve as a resource to the students by providing them with the most updated information on health topics such as alcohol safety, prescription drug abuse, sexual health, sleep, stress management, mental health, LGBTQ+ issues, and nutrition to name a few. Our goal is to create an environment where students feel safe and comfortable to approach the health education team with any concerns or questions they may be too afraid to ask otherwise so that our students can live their healthiest life.
- **Department of Wellness Sponsored Programs** consist of federal, state and privately-funded grants and contracts that serve the OSU community as well as fulfill the community outreach and extension components of Oklahoma State University's land-grant mission. Oklahoma ABLE Tech is the statewide Assistive Technology Act Program, which connects Oklahomans with disabilities to assistive technology, or AT, through a variety of programs and services. ABLE Tech provides access to AT through a short-term equipment loan program, AT demonstration centers, acquisition of AT and durable medical equipment, or DME, through the Device Reutilization Program and low-interest bank loans. The Device Reutilization Program is a partnership between the Oklahoma Health Care Authority and Oklahoma ABLE Tech to reuse and re-distribute valuable DME to Oklahomans. ABLE Tech also provides Information and Communication Technology (ICT) Accessibility services statewide to higher education, the career tech system, and state agencies. The Special Education Resolution Center program, through a contract with the Oklahoma State Department of Education, manages the federal special education due process hearing system and alternative dispute resolution programs for Oklahoma. The Oklahoma Rehabilitation Council, through a contract with the Oklahoma Department of Rehabilitation Services, advises the state agency regarding its performance in providing vocational rehabilitation services to individuals with disabilities. The Department of Wellness OSU Community Wellness Programs currently consists of multiple grant-funded projects which currently include: Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS) regional prevention coordinator grants, Strategic Prevention Framework (SPF) Partnership for Success grants, Strategic Targeted Response grants (STR- opioid prevention), Tobacco Settlement Endowment Trust (TSET) Healthy Living grants, Substance Abuse and Mental Health Services Administration (SAMHSA) Drug Free Community Grant and SAMHSA Sober Truth on Prevention Underage Drinking (STOP) Grant.

Wellness Services

- **Personal Training:** Exercise programs tailored by trainers to fit clients' needs. Trainers teach clients the proper technique to perform exercises correctly and effectively.
- **Health Risk Assessments:** Screenings that provide an individualized student health risk assessment designed for early detection of health problems.
- **Swim Lessons:** Group and private lessons are available for adults and children during the summer months.

Wellness Facilities

- **Colvin Recreation Center:** Offers 250,000 square feet of recreation options including 10 basketball courts, 5 newly renovated racquetball courts, 25-ft. rock climbing wall, indoor track, cardio areas, a multipurpose gym and indoor soccer field, outdoor pool, dance studio, multipurpose fitness room/personal training studio, F45 and CrossFit studios, combatives room, cycle studio, and newly renovated pin-selectorized machines and free weights.
- **Seretean Wellness Center:** Features group exercise studios, multipurpose room, personal training area, demonstration kitchen, a lecture hall and Sponsored Programs testing and training center.
- **Colvin Annex:** Another great attribute to the Department of Wellness featuring four indoor basketball/volleyball courts. With the inclusion of natural light and air conditioning, it serves as the perfect location for small conferences and workshops.
- **Western Fields:** Located about a mile and a half from the Colvin Recreation Center, the Western Fields are home to multipurpose intramural fields and the Outdoor Adventure Challenge Course. The challenge course offers trainings and team-building workshops to students, faculty, staff and the general public.

The Department of Wellness aims to provide exciting and rewarding programs and services for OSU students and employees. For more information visit our website at wellness.okstate.edu (https://wellness.okstate.edu/), like us on Facebook (https://facebook.com/OSUWELL/) and follow us on Twitter (https://twitter.com/osuwell/) and Instagram (https://instagram.com/osuwell/).

Ecotoxicology and Water Quality Research Laboratory (EWQRL)

The Ecotoxicology and Water Quality Research Laboratory (EWQRL) is located in Life Sciences West and is part of the Integrative Biology Department at OSU. Established in the 1960s as the Reservoir Research Center, in 2001, the lab changed names to reflect not only our expertise in standardized aquatic toxicity testing but also additional research foci in aquatic ecosystem assessments. The EWQRL provides services to a number of companies and wastewater treatment facilities throughout Oklahoma, in the form of EPA standardized bioassays. In addition, the staff and students (both graduate and undergraduate) funded by the EWQRL, undertake aquatic monitoring projects in riverine, wetland and reservoir systems for both state and federal agencies. These projects include invertebrate and fish surveys and identification, zebra mussel monitoring, wetland delineation and toxicity assessments. The labs facilities include a fathead minnow rearing room, temperature and light controlled environmental chambers for in-house cultures of aquatic test organisms (cladocerans, amphipods and midges) and standardized toxicity testing of client produced water, a wet chemistry laboratory, computer laboratory, and numerous compound and dissecting microscopes all with digital imaging capabilities. Sampling equipment for field surveys includes a boat, electroshockers, nets, drift fences and several field meters.

Engagement Skills Trainer (EST 2000)

The EST provides initial and sustainment marksmanship training, static unit collective gunnery and tactical training, and shoot/don't shoot training. It supports the following three modes of training: marksmanship, squad/fire team collective and judgmental use of force. The system models M4/M16A2 rifles and is deployable with its own system shelter. All EST training scenarios are U.S. Army Training and Doctrine Command (TRADOC) validated. Cadets at OSU will spend up to six to nine hours per semester using the EST, focused on grouping, zeroing, basic qualification, and advanced marksmanship techniques. The system represents the cutting edge of technology in marksmanship training across the globe.

Herbarium

The OSU Herbarium houses the university's collection of plant specimens. It is located in Life Sciences East, Room 012, and is maintained by the Department of Plant Biology, Ecology, and Evolution. The collection consists primarily of over 150,000 specimens of vascular and non-vascular plants that are dried, mounted on archival paper or placed in packets, and stored in cabinets. There are nearly 50,000 specimens that document the flora of the state of Oklahoma, the second largest such collection in the world. The remaining specimens were collected throughout the world, with strong representation of the Great Plains region and Texas. A particularly significant collection of specimens was made throughout Mexico in the 1960s and 1970s by former curator, Dr. U.T. Waterfall. Other large collections represent the countries of Canada, Colombia, and Ethiopia. Data on these collections can be accessed on the internet through the Texas-Oklahoma Regional Consortium of Herbaria portal (TORCH: portal.torcherbaria.org (https://portal.torcherbaria.org/portal/)); Global Plants (plants.jstor.org (http://plants.jstor.org)); and other repositories and aggregators. Over 225 specimens are taxonomic "types" that are the reference material that form the basis for scientific names of these plant species. The Herbarium is known by its Index Herbariorum code, OKLA. The collection is used extensively by OSU researchers, students, land managers, government agencies, and members of the general public interested in plant identification, plant distributions, and ecology. The Herbarium also provides specimen loans to researchers at accredited institutions around the world. Herbarium staff assist with identifications and on specimen based information on request; requests from for-profit interests may be charged for this service.

M. B. Seretean Center for the Performing Arts

The M.B. Seretean Center for the Performing Arts provides a home for portions of the Michael and Anne Greenwood School of Music and the Department of Theatre at OSU. Constructed in 1970 at a cost of three million dollars and named in honor of its principal benefactor, M.B. "Bud" Seretean, a 1947 OSU graduate, the Center is the focal point of many major theatrical and musical events on the OSU campus. The Seretean Center includes an 800-seat Concert Hall and the 600-seat Vivia Locke Theatre, which attract a myriad of fine arts activities such as ballet, concerts, opera, plays, musicals, faculty and student recitals, and a host of summer conventions and camps.

In addition to the auditorium and theatre, the Seretean Center houses teaching studios for music and theatre faculty, a variety of classrooms, a dance studio, a scene shop for the theatre, a computer lab, and a well-equipped audio center, all designed to provide an excellent atmosphere for the teaching of the fine arts at OSU.

Theatre

Live theatre productions are an important part of the cultural life of the campus. The OSU Theatre Department produces six to eight plays each academic year from a wide variety of dramatic and musical theatre literature. Two separate production series are offered. Each year, three to four fully-mounted large-scale productions are presented in the 600-seat Vivia Locke Theatre. Two to four experimental productions, often student-directed and designed, are presented in the 100-seat Jerry L. Davis Studio Theatre. Each production's cast and crew is comprised of theatre majors and minors as well as non-majors from across the campus. Auditions are open to all students on campus regardless of major.

OSU Libraries

The OSU Library system consists of the Edmon Low Library at the heart of campus and three specialized branch libraries (the Education and Teaching Library (https://library.okstate.edu/education-and-teaching-library/) in Willard Hall, the Architecture Library (https://info.library.okstate.edu/cunningham-architecture-library/) in the Architecture Building and the Veterinary Medicine Library (https://info.library.okstate.edu/veterinary-health-sciences/) in McElroy Hall). The Edmon Low Library is open seven days per week during the fall and spring semesters. Find the latest hours at library.okstate.edu/about/hours (https://library.okstate.edu/about/hours/). The Library's six floors offer individual study spaces designated as either silent (no talking), whisper (talking softly permitted) or group. There are 24 private study rooms that can be reserved online, as well as testing rooms and larger meeting spaces. A lactation room (https://info.library.okstate.edu/lactationspace/) is available by reservation.

Desktop computers located on the first and fifth floors provide access to the Internet, MS Office, the Library Catalog and other electronic library resources. The Library also provides laptops, MacBook Pros and Microsoft Surfaces as well as an extensive list of checkout technology. Unlimited black and white printing is available at no additional charge. Color printers are located on the first floor and can be used for a small per page charge. Large-format poster printing (https://

info.library.okstate.edu/poster-printing/) can be found on the lower level in the Maps and Spatial Data office.

Many Library resources are available remotely 24/7 via the Library's website (library.okstate.edu (https://www.library.okstate.edu)). Here you may renew books you have checked out or determine whether a book you need is available; search the listing of more than 200 specialized databases; connect to more than 60,000 online full-text journals; and access online course reserves. If there is an article or book chapter the Library owns only in paper, use the Document Delivery (https://library.okstate.edu/forms/get-materials/request-document-delivery-of-a-book-or-article-(items-from-the-osu-library)/) service to request a link to a digitized copy. If you need an item not owned by the OSU Library, Interlibrary Loan (https://info.library.okstate.edu/ILS/) can request it for you.

The Library offers assistance in person, by phone 405-744-9775, via e-mail lib-dls@okstate.edu or via chat on the Library's website. For the latest Library news, events and service updates, find OkStateLibrary on Instagram (https://www.instagram.com/okstatelibrary/), Facebook (https://www.facebook.com/okstatelibrary/), Pinterest (https://www.pinterest.com/okstatelibrary/_saved/), YouTube (https://www.youtube.com/user/OkStateLibrary/) or OState.TV (https://video.okstate.edu/channel/Library/86921402/). The Library's calendar (https://okstate.libcal.com/) of events lists upcoming programming, training, tutoring and exhibits.

Creative Studios

The Edmon Low Creative Studios (https://info.library.okstate.edu/creativestudios/) provides access to emerging technology and digital devices for OSU students and employees. The space is located on the first floor of the Edmon Low Library, and there you will find studios dedicated to 3D printing, virtual reality, heritage arts, audio production, recording and presentations, and data visualization. The Library's Tech to Go desk is also located here, with VR equipment, cameras, ring lights, tripods, microphones, microscopes, sewing machines, telescopes and projectors.

Government Documents

The OSU Library has an extensive collection of current and historical government publications, as well as publications of the state of Oklahoma, foreign governments and international organizations providing information relevant to all majors. Publications include statistical, legislative and legal materials. Government Documents (https://info.library.okstate.edu/government-documents/), located on the fifth floor of the Edmon Low Library, also includes the Patent and Trademark Resource Center (https://info.library.okstate.edu/patent-and-trademark-resource-center/) and serves as the state's only regional depository for federal publications.

McCasland Maps and Spatial Data

This unit receives print and digital maps produced by the U.S. Geological Survey, Census Bureau, Forest Service, National Park Service and many other federal agencies. Maps and Spatial Data (https://info.library.okstate.edu/map-room/), located in the lower level of the Edmon Low Library, also houses city, state, national and international maps. The collection includes a large historical set of aerial photographs of most Oklahoma counties, as well as geospatial data sets. The office also includes resources for learning more about GIS-related computing, including specialized software and instruction.

Oklahoma Oral History Research Program

The OOHRP (https://library.okstate.edu/oralhistory/) promotes and facilitates the collection, preservation and analysis of interview-based research and related audio projects by educating students, faculty and community members in the methods, protocols and professional and ethical standards of oral history. The OOHRP's extensive, award-winning interview collections focusing on Oklahoma history and culture are available online for research use.

Research and Learning Services

RLS helps you find and use information better, faster and easier. The department partners user experience, like workshops, tours, affordable learning support and instruction support, with traditional academic services, such as data management support, copyright and citation education and research instruction. Services are open to everyone and are free, convenient and customizable.

Special Collection and University Archives

SCUA (https://archives.library.okstate.edu/)'s collection focus is on the history of both Oklahoma and OSU, its employees and graduates. Featured holdings include manuscripts, photographs, rare books and research material related to campus life, Oklahoma women, history, politics, and community groups. The University Archives is also the depository for all academic and administrative documents, official records and other materials related to the management, operations and mission of Oklahoma State University.

The OSU Museum of Art

The Oklahoma State University Museum of Art serves as a laboratory for exploration for both the campus community and the public, furthering the university's academic mission and land-grant traditions of service. Housed in a historic 1933 building, which served as a federal post office until 1978, the building was acquired by Oklahoma State University in 2010 and opened as an art museum in 2014. In 2019, the American Alliance of Museums awarded the museum accreditation. **Galleries are open to the public with free admission, striving to make art accessible to all.**

The OSU Museum of Art provides opportunities for OSU students, employees, and the greater community through dynamic exhibitions **(**https://museum.okstate.edu/art/**) and** programs **(**https://museum.okstate.edu/learn/programming.html**).** The museum presents six to eight exhibitions per year, including both traveling and permanent collection shows. The museum's permanent collection (https://museum.okstate.edu/art/collections/) consists of approximately 6000 objects from across the globe and spanning thousands of years, with a focus on modern and contemporary American and Native American art. The museum also cares for the university's public art on campus (https://museum.okstate.edu/art/public-art.html).

Opportunities for students (https://museum.okstate.edu/learn/students.html) include working as Museum Associates, serving as assistants and interns, and participating in the organizing of exhibitions and programming. For faculty, museum staff will consult on ways to incorporate the collection into a particular course, provide specialty tours for students or groups, pull works from storage for view for class visits, and collaborate on programs. Educational programs, both on site and as part of outreach initiatives, serve university students and staff, early childhood and K-12 students, community organizations, and Stillwater and regional residents.

For more information visit our website at https://museum.okstate.edu **(**https://museum.okstate.edu/**), like us on** Facebook **(**https://www.facebook.com/OSUMuseumofArt/**) and follow us on** Instagram **(**https://www.instagram.com/osumuseumofart/**).**

The School of Hospitality and Tourism Management Experiential Learning Laboratories

Taylor's Teaching Restaurant is an experiential laboratory that emphasizes quality food service utilizing a thoughtfully prepared menu featuring seasonal ingredients. Students develop skills in food preparation, service techniques, dining room management and profitability. Focus is on professionalism, quality management and guest satisfaction.

Planet Orange Café is a quick service concept with an upbeat and dynamic atmosphere. Students progress through staged learning in this lab developing the skills to assume management responsibility.

The Wayne Hirst Center for Beverage Education promotes a curriculum at the forefront of beverage education featuring a variety of formats including coffees, teas and other beverages.

Experiential and connectional learning opportunities are facilitated in these learning laboratories through three student-led events: the Distinguished Chef Scholarship Benefit Series, Hospitality Days Career Fair and the Wine and Craft Beer Forums of Oklahoma. All students are encouraged to participate in these service-learning activities and earn elective credits in doing so.

Student Union

Dating back to 1815, college unions have always been thought of as "places where all may meet on common ground." The OSU Student Union certainly is no exception to this tradition. It has been serving the university community since 1950 and has become the place to be on the OSU campus. With a facility consisting of more than 630,000 square feet, it stands as the most comprehensive union in the world. It provides the university with such services as the University Store (textbooks, OSU merchandise and technology center), banking services, restaurants, lounges, meeting rooms and a 67-room hotel. What makes the Union special is 80 percent of its revenue is self-generated rather than generated through student fees, helping keep expenses to a minimum for OSU students.

The primary purpose of the OSU Student Union is to be a comprehensive system of diverse people, services, programs and facilities that enrich the intellectual, cultural and social well-being of the OSU student and campus community.

Located in the Student Union is the Department of Campus Life (http://lcl.okstate.edu), which houses the university's more than 450 campus organizations. Many activities such as theater events, art exhibits, craft activities, speakers and so much more are provided for students by the Union's student programming organization, Student Union Activities Board (http://suab.okstate.edu), which is also located in the Union.

Through its meeting and conference center (http://meetings.okstate.edu), the Student Union hosts many events throughout the year. The variety of meeting rooms located throughout the building are also available to OSU student organizations and faculty meetings, typically at no charge.

The University Store (http://universitystore.okstate.edu) supports the majority of the Union's $22 million operating budget which includes programs and services which have impacted thousands of OSU students throughout the years.

Need a quick bite to eat? The Student Union has you covered there as well with 10 University Dining Services (http://dining.okstate.edu) concepts to choose from. Concepts range from a fully-stocked convenience store to international cuisine and home-style meals.

The Student Union's $63 million renovation project in 2012, which was officially endorsed by the students through their increased student fee gift, allowed the university to revitalize an iconic campus building so it can better meet contemporary student needs while maintaining the significance of its history, legacy and commitment to student success. The Union has been named the "No. 1 Most Amazing Student Union" by bestcollegereviews.org (http://bestcollegereviews.org) and ranked second by Best College Values in its most amazing college unions and campus centers in the United States rankings.

More information about the Student Union and its offerings can be found at union.okstate.edu (http://union.okstate.edu). We encourage you to follow the Union on our social media platforms, Facebook (http://facebook.com/osuunion/), Instagram (http://instagram.com/osuunion/) and X (http://x.com/osuuunion/).

Wes Watkins Center Meetings & Conference Services

Wes Watkins Center Meetings & Conference Services provides meeting spaces and services for the needs of Oklahoma State University and off-campus constituents. The department acts as administrator of the facility, which is home to the Center for International Trade and Development, School of Global Studies, and the English Language Institute. Wes Watkins Center Meetings & Conference Services offers over 42,000 square feet of meeting space, including the International Exhibit Hall, the largest meeting venue on campus. The department works with clients to coordinate event logistics, parking details, and vendor catering options.

The Wes Watkins Center, in conjunction with the Student Union, serves as a central location for international events, business meetings, social functions, and conferences at OSU. For more information about the Wes Watkins Center and Meetings & Conference Services, please visit our website at meetings.okstate.edu (https://meetings.okstate.edu/).

Student Services

Career Services

OSU Career Services offers comprehensive career support to the Cowboy family, while making OSU a top talent hub. The goal of OSU Career Services is to create valuable connections and offer life-changing career opportunities for OSU students and alumni.

The department assists students one-on-one in exploring academic majors and careers, provides insight into securing part-time jobs, hosts nearly a dozen specialized career fairs each year and organizes connection sessions for students and alumni to interface with employers. Through campus recruiting, students and alumni have access to employment opportunities with hundreds of employers across the United States and beyond. Additionally, students receive support with other career-building activities, including career exploration, job shadowing, leadership and volunteer experiences to develop the skills necessary for future employment.

Career development activities, including help in identifying a major well suited to a student's interests, skills and abilities are facilitated by career coaches available in each academic college and the OSU Career Services office. Career coaches utilize various career assessments, followed by one-on-one appointments to offer personal insight to foster professional growth. Students can work with a career coach throughout their collegiate career to build professional application materials as they explore part-time jobs, internships, full-time employment or graduate and professional school. In addition to individual consultations, Career Services offers mock interviews, career-related workshops, portfolio development and other professional development programming. These services continue as students graduate and become members of the OSU Alumni Association.

Students and alumni can utilize the Job and Interview Portal (https://okstate.12twenty.com/Account/Login/) to search and apply for jobs and upload their information to allow recruiters to find them. Employers interested in hiring OSU students and alumni post opportunities for full-time jobs, internships, co-ops, federal work-study positions and part-time jobs on the Job and Interview Portal. Additional job search and preparation tools such as Interview Prep, GoinGlobal, Career Shift and other job search resources and assessments are accessible through careerservices.okstate.edu (https://careerservices.okstate.edu/).

OSU Career Services offers several free and discounted job search supplies to enhance students' professional image including resources that answer frequently asked questions pertaining to success in the job search, as well as free resume paper and thank you notes to use at career fairs and networking events. Portfolios and business cards are available for purchase. You can find OSU Career Services in 360 Student Union.

CampusLink

CampusLink is OSU's student organization database offering information about over 400 student groups at OSU and an event calendar. Every student should login to CampusLink and set up their profiles since this is also where all campuswide elections are held. To login, go to https://campuslink.okstate.edu and use your okstate.edu email and password.

Fraternity & Sorority Affairs

Oklahoma State University's award winning fraternity and sorority community is comprised of members of four governing councils: Interfraternity Council, Multicultural Greek Council, National Pan-Hellenic Council and Panhellenic Council. While the fraternal community at Oklahoma State University began more than one hundred years ago, its impact continues to flourish on campus. Today, more than 4,000 students are strong and vital members of the OSU fraternity and sorority community. We are proud to have a thriving system on campus with numerous, diverse nationally-recognized fraternities and sororities represented.

Our fraternity and sorority community offers students a unique opportunity to have a balanced college life with a focus on academic excellence, brotherhood/sisterhood, community service and responsible social interaction. Greek affiliation also allows students to make lasting friendships with individuals with similar ideals and common purposes. For more information, visit our website at http://gogreek.okstate.edu.

Honor and Service Organizations

OSU offers opportunities for personal and professional development through many nationally-affiliated honor and service organizations. These organizations provide opportunities for leadership and program development, new friendships and recognition of achievement. University-wide organizations include:

- Mortar Board (junior and senior honor society) (https://campuslink.okstate.edu/organization/mortar-board/)
- National Society of Collegiate Scholars (https://campuslink.okstate.edu/organization/national-society-of-collegiate-scholars/)
- Order of Omega (https://campuslink.okstate.edu/organization/order-of-omega/) (honor society for sorority and fraternity members)
- Phi Kappa Phi (https://www.phikappaphi.org) (national honor society for seniors and graduate students)

See college sections for organizations within each college. Also on campuslink at https://campuslink.okstate.edu/organizations (https://campuslink.okstate.edu/organizations/).

International Students and Scholars

The Office of International Students and Scholars (ISS) is a unit within OSU GLOBAL that provides assistance to more than 1,500 international students, scholars, and their dependents at OSU. OSU hosts students and scholars from more than 90 countries. ISS helps international students and scholars achieve their educational objectives by assisting with U.S. immigration regulations and and opportunities provided for international visitors. This includes opportunities such as degree related internships, on-campus employment eligibility, immigration processing of appropriate documentation, interactions with embassies, and consulates as well as possible post-degree employment opportunities. ISS also works with academic units across the campus to provide a safe and welcoming academic environment for the international community at OSU.

ISS provides services to newly arriving international students and scholars including coordination of initial check-in, immigration registration, new international student and scholar orientation, on-campus employment eligibility processing, assistance with connecting to other student organizations, and leadership opportunities. ISS regularly communicates with OSU's international student body through a weekly listserv and the ISS website. In addition, ISS provides a variety of seminars on issues relevant to the needs of the campus community. ISS also provides services to students who are under contract from a third-party agencies or governmental sponsorship. For more details on these

services, please visit the Sponsored Student Services link on the ISS website.

One of the ways that ISS supports cultural events and activities is through the sponsorship of the International Student Organization (ISO). ISO provides leadership opportunities through multiple programs that encourage international student integration into campus life. Those programs allow international students to present their respective cultures to the OSU and Stillwater communities. ISO is the parent organization to nearly 20 Area Clubs that represent a variety of nationalities. For more information on ISO International Area Clubs please visit https://campuslink.okstate.edu/organization/international-student-organization (https://campuslink.okstate.edu/organization/international-student-organization/).

ISS is located at 309 Wes Watkins Center.

Office of International Students & Scholars
OSU GLOBAL
Oklahoma State University
309 Wes Watkins Center
Stillwater, OK 74078
Phone: 405-744-5459
Email: iss@okstate.edu
Website: iss.okstate.edu (https://lcl.okstate.edu/iss/)

Lectures

Oklahoma State University, through its academic organizations and student groups, has a significant number of speakers each year, enriching the intellectual life on campus. Individuals, from both off-campus and on-campus, share their expertise with faculty, students, staff and town's people on a wide variety of topics.

Many of the academic units as well as student groups invite speakers to their meetings in order to enhance the educational component of the University. These lectures are generally of interest to specific academic areas, rather than to the general campus.

The Student Government Association, through its Speaker's Board, brings major figures in politics, entertainment, and business to campus. The purpose of the Speaker's Board is to bring speakers of a high caliber to OSU's campus in order to spark the imagination and interest of the student body. Other student organizations conduct active lecture programs concerning their areas of interest.

Non-Traditional Student Services

The primary goal is to assist nontraditional students, anyone with at least a two-year break in education, by providing support, information and referrals. The coordinator serves as a resource person for the entire campus community and seeks to raise the awareness of faculty, administrators and students with regard to the needs of this special group. All nontraditional students are encouraged to stop by Campus Life in 211 Student Union to discuss their concerns or questions.

Camp Cowboy

Camp Cowboy is a program that helps new students deepen their OSU connection by building friendships, learning history and traditions, and setting priorities for their time as OSU Cowboys.

Students who attend Camp Cowboy...:

- Develop friendships and a sense of community with fellow Cowboys entering their first semester at OSU
- Learn about OSU's history, traditions and what it means to be a Cowboy.
- Build relationships with student camp staff who help them find connection points, provide peer guidance on how to excel and keep them informed of leadership opportunities around campus.
- Discover co-curricular resources that are critical partners in students' campus support networks.
- Understand common challenges of first-year students and develop strategies for addressing those challenges.
- Are more likely to be involved and stay engaged in campus and community activities throughout their time at OSU.
- Earn higher GPAs and complete their OSU degrees in a more timely fashion.

For more information, visit our website at http://campcowboy.okstate.edu.

Family Engagement

The college experience not only impacts future career success, but is instrumental to overall development. OSU Family Engagement strives to nurture collaborative partnerships with students' immediate, extended and chosen family members in support of student learning, development and success. At OSU, we understand that earning a degree is a family endeavor. Learn more at https://go.okstate.edu/family (https://go.okstate.edu/family/).

Religious Life

Campus religious centers, supported by state and national church bodies specifically to serve the University community, provide opportunity for worship in both traditional and contemporary services; religious education commensurate with higher learning for the development of the whole person; counseling that maintains a spiritual basis for the cohesion and meaning of life; and social activities which allow relationships and life views to deepen. The religious centers have strategic locations close to campus and, in addition to their own ministry, coordinate many of their efforts with each other, other campus religious organizations and through the Interfaith Council.

Student Volunteer Center

Since the Student Volunteer Center's inception in 1984, Oklahoma State University students have served at hundreds of non-profit agencies, building a reputation of civic responsibility within higher education and other communities in Oklahoma. Working together toward a common goal, the Student Volunteer Center has had an impact on communities worldwide. The focus of the Student Volunteer Center is to provide OSU students purposeful volunteer opportunities to give back to our community. Working with local, state and national non-profit agencies, students at Oklahoma State University are provided with opportunities to grow and excel through meaningful hands-on involvement in service, research and academic activities. Through information sessions and an annual part-time work and service fair, a traditional fall event, the Student Volunteer Center keeps students informed about upcoming events and needs in the local community. Through civic engagement participation, students learn and develop through active participation in

thoughtfully organized service experiences that meet actual community needs. Undergraduates, if you have 400 cumulative impacts and hours at your graduation semester, you can apply for the exclusive Orange C.O.R.D. Transfers and Graduates, if you have 100 cumulative impacts and hours per year you are at OSU, you can apply for the exclusive Orange C.O.R.D. The Student Volunteer Center continues to enrich lives of our community members through intergenerational and interpretive service projects.

For further information, please visit the Student Volunteer Center website. (https://campuslife.okstate.edu/student-volunteer-center/)

If you are looking for volunteer opportunities or are needing to log your impacts, please visit GivePulse (https://givepul.se/b1zwh/), as a student you are able to login with your okey credentials.

Student Union Activities Board

SUAB is the premier programming board at Oklahoma State, enriching OSU through cultural, entertainment and recreational activities. Students in SUAB coordinate events that are as diverse in nature as the students at OSU, such as movies, bingo, karaoke, murder mystery dinners, laser tag, OSU's largest Talent Show, the Spirit Walk and Dragonfly, as well as many other events. It is one of the most active campus organizations at OSU. Find us at http://suab.okstate.edu/.

Housing and Residential Life

OSU Housing and Residential Life offers 33 residence halls, 6 apartment neighborhoods and several special interest housing options (Living Learning Programs (https://reslife.okstate.edu/housing-options/living-learning-programs/)) for residents. Students living in university housing graduate earlier and maintain higher grades than their off-campus counterparts. Many students are involved in planning and leading educational, recreational and social activities within the halls.

Housing Registration and Leasing Information

Admitted, incoming first-year students may register for housing as early as February 1; however, they must submit the $300 enrollment deposit before housing can be assigned First-year students are guaranteed housing for the upcoming academic year. Room assignments are based on housing preferences, availability, and the date and time the enrollment deposit was submitted. All halls are open continuously throughout the academic year, and residents may come and go during breaks and holidays. Undergraduate rates are quoted per person.

OSU offers the following registration and leasing options:

- Academic Year. Beginning the Wednesday before classes start in August through the end of the spring semester in May
- Fall Semester. Beginning the Wednesday of classes in August through the end of December
- Spring Semester. End of December through the end of the spring semester in May
- Summer Semester. Middle of May through the beginning of August
- Year-round housing (https://reslife.okstate.edu/registration/dates-deadlines/fgsh-registration.html) is the academic year with eligibility for a summer extension for graduate students, married with or without dependents, single with dependents and others who qualify. Residents will be assigned to one of the apartment neighborhoods. Apartment unit rates are split between two students (roommates) or charged in full to the OSU student.

For more details concerning registration and leasing, visit the following webpages:

- Visit Housing Registration (https://reslife.okstate.edu/registration/) for processes and timelines.
- Visit Financial Responsibility for more information about housing fines, fees, charges and refunds.
- Learn about housing rates and dining plans at Housing Rates Overview. Housing rates include all utility bills. Undergraduate rates are quoted per person.
- Consider applying for a Living Learning Program (LLP) (https://reslife.okstate.edu/housing-options/living-learning-programs/).
- Read the Oklahoma State University Lease Agreement (pdf).

Freshman Residency Requirement and Exemption Requests

In support of the mission of Oklahoma State University, first-year freshmen are required to live in university housing. Research suggests that living in university housing increases the probability of a student's academic success.

To request an exemption from the Freshman Residency Requirement, students must submit the required form and documents by the stated deadline. While subject to verification and authorization by the university, students may be given permission to live off campus for certain reasons.

Learn more at Freshman Residency Requirement and Housing Exemption Request (form).

Housing Options

OSU offers four living styles to choose from - Traditional, suites, deluxe suites and apartments. Apartment complexes are for undergraduates only. To compare living options and housing rates, visit the Hall Finder (https://reslife.okstate.edu/housing-options/halls/).

- Traditional Halls with shared bedrooms and community bathrooms are Iba, Parker, Stout and Wentz Halls. University Commons Complex features three modified traditional buildings featuring shared bedrooms and smaller blocks of rooms sharing community bathrooms. North Commons is reserved for women only.
- Suites are 1 or 2 private bedroom units with 1 shared bathroom. Suites are available in Bennett Hall and the 6 buildings that comprise The Villages.
- Deluxe Suites are 4 private or 2 shared bedrooms with a living room and a kitchenette (except Bennett Hall). Deluxe suites are in Bennett, Booker-Stinchcomb, Patchin-Jones and Zink-Allen Halls. Bennett also offers some 3 bedroom suites.
- Apartment Living offers three options:
  - Deluxe Apartment Neighborhoods (undergraduates only). These apartments house 2 to 4 roommates. Each unit features private bedrooms (some shared rooms), a living room, and a kitchen with a washer/dryer.
    - KPF Neighborhood (Kamm, Peterson-Friend Halls)
    - Morrison Neighborhood (Carreker East/West, McPherson, Payne Ellis Halls)
    - North Monroe Neighborhood (Bost, Davis, Morsani-Smith, Sitlington, Young Halls)
  - Apartment Neighborhoods. These units have two bedrooms, one bathroom, a living room, and a kitchen with full-size appliances (no in-unit washer and dryer). Ideal for graduate students, single students with dependents, and married students with

or without dependents. Undergraduate students may also be assigned here.
Each apartment neighborhood offers an on-site staff member called an resident assistant (RA) to help residents resolve conflicts, meet neighbors and find appropriate community services. They also provide information about the facilities and the university and provide referrals to appropriate university offices for residents' needs.
  - Unfurnished Apartments
    - Brumley Neighborhood (for undergraduates)
    - Demaree Neighborhood
    - Prosser Neighborhood (pet-friendly)
    - Stevens Neighborhood
    - Williams Neighborhood
  - Furnished Apartments
    - West Neighborhood
- Apartment Complexes. These are 4 private bedroom/bathroom units with university leases for undergraduates located at apartment complexes in Stillwater.

Housing Accommodations

If a student needs housing accommodation based on a disability, or health-related concerns, or needs to register a service dog or emotional support animal (ESAs), visitStudent Accessibility Services#or call phone (voice/TTY) at405-744-7116.

Residential Experience

The Residence Halls Association (RHA) acts as the voice of our residents to the university administration concerning policies and regulations and coordinates housing-wide activities for the enrichment of residential area living. Each hall has its own elected officers and constitution and is a part of the RHA system of representative government. There are numerous opportunities for involvement in the halls, such as floor officers, social committees, food committees, and sports and athletic activities.

Residence Hall Student Organizations

Residence halls are popular places to live on the OSU campus. Much of the success of the residence halls is the strong and vital student government system consisting of a Board of Directors, councils for each hall or complex, and the Residence Halls Association, which represents all halls on campus.

All residence halls on campus combine to form the Residence Halls Association (RHA) (https://reslife.okstate.edu/residential-experience/student-jobs/rha.html). The Residence Halls Association acts as the voice of residential area students to the University administration concerning policies and regulations, and coordinates campus-wide activities for the enrichment of residential area living. Each hall has its own elected officers and constitution and is a part of the RHA system of representative government. There are numerous opportunities for involvement in the halls, such as floor officers, social committees, food committees, and sports and athletic activities.

The Prepare to Program Conference is designed to provide incoming students the opportunity to learn about leadership opportunities in the residence halls.

Students With Children

Information on childcare in the Stillwater community is available at the following locations on campus:

- Non-Traditional Student Services, 211 Classroom Building, 405-744-5488
- Non-Traditional Student Organization, 211 Student Union, 405-744-7508
- Family Resource Center, 719 N. Walnut, 405-744-6539. The Family Resource Center offers a variety of programs to meet the needs of the year-round housing residents. These programs vary depending upon the needs of the clientele. Typical programs include English as a Second Language class (ESL), after-school programs, children's programs, as well as cultural and social gatherings. School bus transportation is provided to the Stillwater High, Junior High and Middle schools, and to Westwood and Will Rogers elementary schools.

Contact Housing and Residential Life

To learn more about the types of housing offered, compare options in the Hall Finder (https://reslife.okstate.edu/housing-options/halls/) and leasing rates, and take a 360-degree virtual tour, please visit the website at reslife.okstate.edu (https://reslife.okstate.edu/). For further information or questions, please contact the OSU Housing and Residential Life Office, Iba Hall, Stillwater, OK 74078, 405-744-5592.

Enterprise Information Technology

Enterprise Information Technology (EIT) creates and manages the OSU/A&M technology infrastructure and provides services such as software, ID cards, wired and wireless networks, walk-in computer labs, virtual labs, email, multifactor authentication, file storage, a learning management system and others.

For questions or additional information, visit the EIT website at it.okstate.edu (http://it.okstate.edu) or contact the EIT help desk by calling 405-744-HELP (4357) or emailing helpdesk@okstate.edu. Visit Enterprise IT in person in 421 Classroom Building on the Stillwater campus.

Service Access

Access to EIT services is managed through the O-Key system. O-Key organizes identity data and roles to assign the correct access to the appropriate resources at the right times. Individuals use O-Key to manage passwords, emergency alert preferences, missing contact information and more.

Video Conferencing

Zoom is available to all OSU students, faculty and staff through their O-Key login. Zoom is a cloud-based video conferencing application that allows you to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities, all while conducting live chats — and it lets you record those sessions to view later. Alternatively, Microsoft Teams offers a video conference feature that can be used as part of the Microsoft 365 suite.

Learn more about Microsoft Teams at OSU: it.okstate.edu/services/microsoft-teams (http://it.okstate.edu/services/microsoft-teams/).

Learn more about Zoom at OSU: it.okstate.edu/services/zoom (http://it.okstate.edu/services/zoom/).

Collaboration Tools

Microsoft Teams is the centerpiece for collaboration at OSU as part of the Microsoft 365 suite offered to all students, faculty and staff. Microsoft Teams offers chat, audio and video meetings, and collaborative

file sharing services. Microsoft Teams integrates with the Office 365 subscription applications and other products via extensions.

Learn more: it.okstate.edu/services/microsoft-teams (http://it.okstate.edu/services/microsoft-teams/).

ID Cards

The ID card is the physical extension of the O-Key information. ID cards are used for on-campus purchases, meal plan transactions, borrowing library items, riding the off-campus Stillwater bus without charge, entering selected events, entering secured doors if permitted, and accessing the Colvin Recreation Center.

Learn more: it.okstate.edu/services/id-card-services (http://it.okstate.edu/services/id-card-services/).

Email and File Storage

Email is provided to all employees and students. Cowboy Mail, OSU's email service provided by Microsoft Office 365 contains generous file storage options through Microsoft OneDrive and offers access to other Microsoft Office products and communication tools.

myOKSTATE Banner Portal

The myOKSTATE Banner portal (my.okstate.edu (https://my.okstate.edu)) is a single-access point for most university administrative systems and services. Users find applications and information specific to them, such as enrollment, housing, academic records, employment records and more.

Multifactor Authentication

Multifactor Authentication (MFA) plays an important role in helping keep OSU accounts and services protected by providing a second layer of authentication to accounts. DUO is the MFA system used at OSU.

DUO is available as a downloadable application for mobile devices. Alternatively, passcodes are receivable by text message. All users are required to set up MFA.

Learn more: it.okstate.edu/services/multi-factor-authentication (https://it.okstate.edu/services/multi-factor-authentication/).

Learning Technologies

Canvas is the learning management system used at OSU. It allows students to access lecture notes, course activities, assignment submissions, quizzes, grades and discussions.

Instructors have two additional tools available to use in conjunction with Canvas: Respondus Lockdown Browser (RLB) and Turnitin. RLB is a specialized browser that limits the online testing space by preventing test-takers from wandering to other websites and functions on the computer in use. Turnitin compares student assignments against millions of web pages to detect plagiarism.

Computer Labs

EIT computer labs contain desktop computers, printers, scanners, standard software suites and specialized software. Instructors can reserve selected labs for classroom use. Printing is available. More information is available at labs.okstate.edu (http://labs.okstate.edu/).

Virtual Labs is the internet-based version of the physical IT computer labs and hosts the same software. Students reach Virtual Labs by going through desktop.okstate.edu (https://desktop.okstate.edu/). This site also provides connections to other on-campus computing resources.

Network

The Network and Telecommunications Service team offers the OSU community access to wired and wireless network connections. Network access availability is determined by students' enrollment status or employees' employment status.

The secure wireless network option for students and employees is Eduroam, which is accessible at most higher education institutions in the United States and internationally. Additionally, wired connectivity and Eduroam are available across all OSU/A&M campuses.

Virtual Private Network (VPN)

OSU has an internal network that allows access to many applications that are unavailable through other internet connections. Employees, faculty, and students can connect to the OSU network from their home computers using OSU's VPN, which securely encrypts the connection from a computer to OSU's network.

Learn more: it.okstate.edu/services/osuvpn (https://it.okstate.edu/services/osuvpn/).

Software Distribution Center

The Software Distribution Center (SDC) hosts much of the software available to OSU students, staff and faculty. Availability is dependent upon each user's role with OSU. The Software Distribution Center is located at sdc.okstate.edu (http://sdc.okstate.edu). In addition to the SDC, the full Microsoft Office 365 software suite is available for download to students, faculty, and staff through their Office 365 email accounts.

Remote Printing

Remote printing is a technology that lets users send a print request from anywhere to an on-campus remote print station. The user signs into the print station, selects the documents for printing and collects them from the adjoining printer. Print jobs are held for six hours. Print station locations can be found by visiting it.okstate.edu/services/remote-printing (https://it.okstate.edu/services/remote-printing/).

EIT Helpdesk

The EIT Helpdesk assists students and employees with technology questions and issues. Students and employees can get help with software issues on personally owned computers and devices by taking them to 421 Classroom Building for in-person assistance. Additional help is available by phone and email.

Contact the EIT help desk by calling 405-744-HELP (4357) or emailing helpdesk@okstate.edu.

Parking and Transportation Services

Steve Spradling—Director of Parking and Transportation Services
Jay Doggett—Manager, Parking and OrangeRide Bicycle Rental and Repair
Joesph Bailey—Manager, Transit
Rick Newton—Manager, Transportation Services

Vehicle Registration and Parking Regulations

Any motor vehicle parked on University property between the hours of 5:00 a.m. and 5:00 p.m., Monday through Friday, must display a valid OSU paid parking permit or pass unless otherwise posted. The color and type of permit indicates the area where the vehicle may be parked. Use of a motor vehicle on University property is a privilege, not a right, and is made available only under the policies established in the University Parking

and Traffic Regulations manual currently in effect. Any vehicle driven or parked on the campus of the University by an OSU student or employee should be registered with the OSU Parking Services.

The purpose of these regulations is to expedite the safe and orderly conduct of University business and to provide parking facilities in support of that function within the limits of available spaces. Purchase your permit online at https://parking.okstate.edu/; new faculty or staff, vendor, handicap, university vehicle, carpooling, retiree, construction, registration, visitor or special permits must be purchased in person at the Parking and Transportation Services office. A copy of the OSU Parking Rules and Regulations booklet is available from the Parking Services office, 1006 West Hall of Fame on the corner of Monroe and Hall of Fame; or view online at https://parking.okstate.edu/.

Bicycle registration with the OSU Department of Parking and Transportation Services is advantageous in the event the bicycle is stolen or lost. When bicycles are recovered by the department they are checked against bicycle serial numbers maintained in the registration files for return of the bicycle to the rightful owner. Permits are free of charge and can be obtained in-house or online (shipping fees will apply). Prior to obtaining a permit you are required to review safety guidelines before registering your bicycle. You can view the tutorial, and take the quiz online at https://shuttle.okstate.edu/parking/bikesafetyquiz/video (https://shuttle.okstate.edu/parking/bikesafetyquiz/video/).

OrangeRide Bicycle Rental and Repair

OrangeRide is a bicycle rental program being offered to promote affordable and convenient transportation to the campus and Stillwater community. The shop, which is located on the west end of the Multi-Modal Terminal, will be open Monday-Friday offering rentals on a daily, weekly, or by semester basis. In addition to bicycle rental, the shop will also provide basic bicycle repair for personally owned bicycles. (405) 744-BIKE

Transit Services

The BUS is the campus and community transit service operated by the Department of Parking and Transportation Services. The BUS offers fixed route transit and on-demand paratransit service year-round. Bus transportation is available from 6:30 a.m. until 10:30 p.m. Monday through Friday during the school year and 6:30 a.m. until 7:00 p.m. during the summer. Route and time information are available at the Parking and Transit Services office or online at https://transit.okstate.edu (https://shuttle.okstate.edu/Account/Login/?ReturnUrl=%2FReserve%2FIndex).

THE BUS also offers an online bus tracking system at http://thebus.okstate.edu/ where you can select a route and identify where the buses are on route in relation to your location, available on your desktop and mobile device (Android and iPhone apps).

Tulsa Shuttle

BOB, OSU's Big Orange Bus, is a shuttle service between the Stillwater and Tulsa campuses. There are nine round trips daily from each campus Monday - Thursday; seven round trips on Friday. It is open to current students, staff and faculty and is now open to the public. The cost is $7.50 one way for students; and $13 one way for faculty/staff and public. Reservations can be made at https://shuttle.okstate.edu or in person: Stillwater at the Shuttle office in 1006 West Hall of Fame, at the corner of Hall of Fame and Monroe, Monday - Friday 8:00 a.m. to 5:00 p.m., or in Tulsa at the North Hall Information Center, Monday - Thursday from 7:00 a.m. to 6:00 p.m. and Friday from 7:00 a.m. to 5:00 p.m. In Stillwater, call 405-744-7100 and in Tulsa call 918-594-8332.

University Counseling Services

University Counseling Services (UCS) provides a broad range of services and programming to meet the dynamic and diverse mental health needs of college students. UCS houses the Student Counseling Center, Alcohol and Substance Abuse Center, and the Reboot Center. UCS is committed to supporting students' personal and academic development by holistically addressing needs such as their emotional, social and physical well-being.

The Student Counseling Center and the Alcohol and Substance Abuse Center provide confidential, professional mental health counseling for students. Common areas of concern addressed include stress, anxiety, depression, eating disorders, substance abuse, interpersonal relationships, academic functioning, and self-exploration. These centers offer individual and group counseling, a walk-in clinic, after-hours mental health crisis management via 1-855-CALLSAM, access to online therapeutic services, and outreach programing such as grief support and programs tailored to specific populations or groups. Students may schedule services by calling 405-744-5458 or visiting 320 Student Union.

The Reboot Center provides stress management services to students, faculty and staff. The Reboot Center is an inviting space to relax, recharge and refocus to calm the mind and the body amidst the hustle and bustle of college life. The dogs of Pete's Pet Posse also make frequent visits to the Reboot Center throughout the semester.

Americans With Disabilities Act (ADA) Compliance Program

Office of Equal Opportunity

OSU is committed to improving the full and nondiscriminatory participation in all aspects of campus life for individuals with disabilities. Considerable progress has been made to enhance ADA access to OSU programs, services, facilities and grounds. Students with disabilities are encouraged to help with such efforts by identifying and reporting barriers and other access issues encountered throughout the University Community to the Office of Equal Opportunity. Any student who believes they have experienced discrimination on the basis of a disability can seek resolution through the Equal Opportunity Officer. For more information, contact the Office of Equal Opportunity, 408 Whitehurst, 405-744-9153 or by email address at eeo@okstate.edu.

Student Accessibility Services

Student Accessibility Services (SAS) at Oklahoma State University offers academic, housing, and dining support to students with disabilities attending the OSU Stillwater and NOC Stilwater campuses. Student Accessibility Services is committed to providing a community that ensures full participation for students. Additionally, Student Accessibility Services is a resource for faculty and staff members. Appropriate services are determined on an individualized basis and may include housing or dining accommodations, accessible textbooks, classroom access, testing accommodations, assistive technology, reduced course load and other services based on disability-related need.

Reduced Course Load Accommodation

A reduced course load accommodation generally provides the same services, benefits, and responsibilities as full-time students, including eligibility for undergraduate honor rolls (notwithstanding the usual 12-hour requirement of University Academic Regulation 6.11), university-sponsored scholarships, student housing, and participation in university-sponsored clubs and activities. Taking less than 12 hours in a fall or

spring semester, even with a reduced course load accommodation, may have implications on financial aid, veteran education benefits, visa status, athletic eligibility, and timely progress toward graduation. Students are encouraged to consult their academic advisor and pertinent campus offices before requesting a reduced course load accommodation to understand potential consequences.

Students can initiate a request for services by contacting Student Accessibility Services located in the Seretean Wellness Center Office #103A, phone 405-744-7116, fax 405-744-8380 or VP 405-571-9860 or by email at accessibility@okstate.edu.

University Dining Services

When it comes to food, it's all about choices - and with nearly 30 unique dining options, there's something for every Cowboy. From national franchises to local favorites, healthy meals to indulgent snacks, the possibilities are endless. Whether you want an early-morning coffee or need a late-night snack, we've got it covered. We recognize that our students have varying needs and tastes when it comes to food; that is why we offer some of the most flexible plans in the nation.

Being a part of "America's Healthiest Campus" means there are always well-balanced, nutritious options for our customers. Our Choose Orange food labeling program encourages students to choose healthier options while dining on campus by easily identifying better-for-you choices without having to read a nutrition label. The program is based on the U.S. Dietary Guidelines and qualified items are identified by the Choose Orange icon.

All freshmen living on campus are required to have a meal plan at the bronze level or higher. Campus meal plans are available to on- or off-campus students, as well as any staff or faculty member.

How our Meal Plans Work

Two weeks before the start of each semester, your meal plan amount is automatically loaded on your student ID, which can be swiped at any dining outlet on campus like a debit card. You can immediately spend as much or as little as you want, whenever you want and your balance declines as you make purchases.

Your meal plan is valid anywhere you can eat or drink on campus, including on-campus sporting venues. Each item on campus has a dollar value associated with it, and you are only charged that specific amount each time you use your meal plan to dine on campus—no "blocks," "meals" or limits!

Didn't use your full meal plan this semester? No worries! 100% of your remaining balance at the end of the fall semester will roll over to the following spring semester with a valid meal plan contract. Rollover is only available from fall to spring semester within same academic year (this does not include the non-contract G plan). To learn more about everything UDS has to offer, please visit dining.okstate.edu (https://dining.okstate.edu). For meal plan questions, call 405-744-4920, email dining@okstate.edu or visit the Meal Plan office at 301 Student Union.

Current 2025-2026 Plans

Meal Plan	Meal Plan Rate Per Semester	Dining Dollars Per Semester
Platinum	$2,425^	$2,275
Gold	$2,155^	$2,005
Silver	$1,905^	$1,755
Bronze*	$1,700^	$1,550
Copper	$1,330^	$1,180
Plan G (Non-Contract)**	$100 Increments	

*Minimum meal plan for freshmen living on campus.

^$150 operations surcharge per semester to all contracted meal plans to help offset the cost associated with back-end systems and infrastructure, repairs and maintenance, debt service repayment, and major deferred maintenance to support dining service program.

**Option for students who wish to have occasional meals on campus. Starts with a $100 minimum balance and is loaded in $100 increments as the student wishes. Full balance will carry from semester to semester.

University Health Services

University Health Services is an urgent care facility, designed to provide affordable, provider-directed health care to students. UHS offers a wide range of services including lab work, x-ray, an onsite and drive-thru pharmacy, and general clinic care. A complete list of services can be found at http://uhs.okstate.edu. In the event a medical condition exists that is beyond the scope of the services offered, referrals can be placed to local providers and specialists. Emergency services can be provided by Stillwater Medical Center.

Health Requirements

All new students are required to submit Immunization records and a complete health history form found at https://uhs.okstate.edu/forms.html. Oklahoma law requires that students report their compliance with childhood immunizations including measles, mumps, rubella (MMR), and hepatitis B. These records can be submitted electronically through the UHS Health Portal at https://okstateportal.pointnclick.com (https://okstateportal.pointnclick.com/confirm.aspx) by using their O-key login and password. More details about immunization requirements can be found at http://uhs.okstate.edu/. Failure to comply with these requirements could result in restrictions on future enrollment.

Tuberculosis Testing International Students

All international students are required to undergo tuberculosis (TB) screening before enrolling. This screening is conducted at UHS and includes a blood test. If TB testing is required based on the results, the student is responsible for any associated costs. Please note that only tests conducted within the U.S. are accepted; a chest x-ray from outside the U.S. will not satisfy this requirement. No other vaccines or tests can replace the TB screening.

We can complete the TB screening at the International Student Health Screenings, held at UHS on specific walk-in dates provided by International Students and Scholars. All required records must be submitted in English.

Tuberculosis Testing Domestic Students

Domestic students need to be tested for tuberculosis if they meet any of the following conditions:

- Have lived outside the U.S. for more than 8 weeks continuously,
- Have a medical condition that suppresses the immune system, or
- Have had a known exposure to someone with active tuberculosis.

For more information about OSU's Immunization Compliance Policy, visit https://uhs.okstate.edu/immunizations/.

Mandatory Health Insurance for Non-Immigrant Students

The Oklahoma State University Board of Regents requires non-immigrant students to maintain health insurance as a condition of enrollment. The premium for the Student Health Insurance Plan will be automatically added to the Bursar account, along with tuition and fees, for all non-immigrant students at OSU.

Please note that waivers are not accepted for students who have purchased their own health insurance. All international students on F and J student visas will be enrolled in the university's insurance plan following the drop/add date for the semester. For details on plan coverage and pricing, students should contact Oklahoma State University Human Resources.

Insurance Waivers & Exceptions

For inquiries related to Curricular Practical Training (CPT) or visa-based insurance waivers, please contact the International Students and Scholars (ISS) office at: 405-744-5459 or iss@okstate.edu.

- The insurance premium will be waived for students on Curricular Practical Training (CPT) who provide documented evidence of health insurance coverage — including medical evacuation and repatriation — through an employer whose plan meets the standards of the Patient Protection and Affordable Care Act.
- Non-immigrant students employed by OSU and eligible for the OSU employee insurance plan will not be covered by the student insurance plan. Proof of OSU employer coverage should be submitted to ISS with a waiver form.
- University Human Resources does not process or approve waivers. Please direct all waiver inquiries to ISS.

Graduate Assistants & Health Insurance

Graduate Teaching Assistants/Research Assistants may be eligible for the Student Insurance Plan as part of their assistantship if the GTA/GRA position, lasting the full semester, meets one of the following criteria:

- taking 9 credit hours spring/fall (2 summer) at 0.25 FTE, or
- taking 6 credit hours spring/fall (2 summer) at 0.50 FTE, or
- on reduced continuous enrollment of 2 credit hours or more for post-candidacy doctoral GTA/GRAs at 0.25 FTE.

Student Health Plan related inquiries should be directed to University Human Resources. Graduate assistants do not need to submit waiver forms to ISS.

University Human Resources
201 General Academic Building
Stillwater, OK 74078
405-744-5449
osu-benefits@okstate.edu

Tuition, Fees and Cost Estimates

Tuition and Fees

It is important that students carefully consider the total cost of financing their education, from the entering term to the completion of their degree. If financial help will be needed beyond those funds which the student or the family is able to provide, the student should make the necessary applications for financial assistance well in advance of enrollment. Students should pay particular attention to early deadlines for application for grants, scholarships, and work-study positions. While the needs and resources of each student differ, the University can provide a general list of fees and expenses normally encountered.

Students are given information at the time they complete their enrollment on the procedures and deadlines for payment of tuition and fees. (See "Financial Obligation (p. 43)" in the "Bursar (p. 43)" section of this Catalog.)

The required tuition and mandatory fees for resident and nonresident students at Oklahoma State University are listed below. Resident and nonresident tuition rates are based on the course level and program delivery. All course offerings are listed by four-digit numbers with the first digit indicating the course level. Undergraduate courses are all courses with a first digit of 0 through 4. Graduate-division and professional courses are all courses with the first digit of 5 or above.

New freshmen who are Oklahoma residents are given the opportunity at the time of enrollment to select a guaranteed tuition rate that is locked in for four years. To maintain this rate, students must remain continuously enrolled as full-time students. The lock tuition rate is included in the undergraduate tuition and mandatory fees grid and detailed information is provided on the Office of the Bursar website at bursar.okstate.edu/lock-tuition-program (http://bursar.okstate.edu/lock-tuition-program/).

For the most recent student costs refer to the Office of the Bursar website at http://bursar.okstate.edu/tuition-and-fees (http://bursar.okstate.edu/tuition-and-fees/). Included in this section is information regarding fee definitions, refund policies, and residential life rates.

Tuition and fees are subject to change without notice, as provided by the University Board of Regents and OSRHE policies.

Starting fall 2014, OSU implemented a new block rate that includes tuition and University-wide fees for undergraduate students taking 12 to 18 credit hours. The "block" rate is one of OSU's strategies to help students stay on target to finish college in 4 years. University-wide fees (also called mandatory fees) include: student activity fees, student facility fees, library automation and technology fee, health services fee, student development fee, Daily O'Collegian fee, academic records and maintenance fee, academic excellence fee, transit/parking services fee, advising/assessment fee, university technology infrastructure maintenance fee, academic facilities, life safety and security fee and student union renovation fee. Academic Service Fees such as specific course fees and/or college based fees are not included in the block rate and continue to be charged on a per-credit-hour basis. Additional block rate information is available at: blockrate.okstate.edu (http://blockrate.okstate.edu).

Estimated Total Expenses for Students

An estimated one-semester budget (based on 2025-2026 figures) for an undergraduate student living on campus at OSU is as follows. All cost of attendance budgets can be found on the Cost and Aid website (https://go.okstate.edu/scholarships-financial-aid/).

Resident

Tuition and Fees (based on 15 credit hours)	$6,960
Housing and Food	$5,890
Books, course materials, supplies & equipment	$700
Transportation	$1,150
Personal and miscellaneous	$1,710
Total per Semester	$16,410

Non-Resident

Tuition and Fees (based on 15 credit hours)	14,720
Housing and food	$5,890
Books, course materials, supplies and equipment	$700
Transportation	$1,150
Personal and miscellaneous	$1,710
Total per Semester	$24,170

Undergraduate Block Rate Tuition and University-Wide (Mandatory) Fees (12-18 credit hours per fall or spring semester)

See below for additional special, college, and mandatory fees

Resident	Non Resident	
$4,621.50	$12,381.75	Tuition and University-Wide (Mandatory) Fees

Undergraduate Tuition and University-Wide (Mandatory) Fees (per credit hour for 1-11 hours or other non-block enrollment)

See below for additional special, college, and mandatory fees

Resident	Non Resident	
$180.55	$697.90	Tuition
$207.60	NA	Resident Lock 2023-2024 Tuition
$25.70	$25.70	Academic Facility Fee
$4.35	$4.35	Academic Records and Maintenance Fee
$10.85	$10.85	Advising/Assessment Fee
$0.30	$0.30	Daily O'Collegian Fee
$5.95	$5.95	Student Facility Fee, General
$3.00	$3.00	Student Facility Fee, Campus Rec
$6.00	$6.00	Health Services Fee
$17.70	$17.70	Library Automation and Technology Fee

$6.45	$6.45	Life Safety and Security Fee
$2.50	$2.50	Student Activity Fee
$5.50	$5.50	Student Activity Fee - Athletic Fee
$2.90	$2.90	Student Development Fee
$2.50	$2.50	Transit/Parking Services Fee
$13.20	$13.20	University Technology and Infrastructure Maintenance Fee
$15.50	$15.50	Academic Excellence Fee
$5.15	$5.15	Student Union Renovation Fee

Graduate Tuition and University-Wide (Mandatory) Fees (per credit hour)

See below for additional special, college, and mandatory fees

Resident	Non Resident	
$233.80	$879.75	Tuition
$25.70	$25.70	Academic Facility Fee
$4.35	$4.35	Academic Records and Maintenance Fee
$10.85	$10.85	Advising/Assessment Fee
$0.30	$0.30	Daily O'Collegian Fee
$5.95	$5.95	Student Facility Fee, General
$3.00	$3.00	Student Facility Fee, Campus Rec
$6.00	$6.00	Health Services Fee
$17.70	$17.70	Library Automation and Technology Fee
$6.45	$6.45	Life Safety and Security Fee
$2.50	$2.50	Student Activity Fee
$5.50	$5.50	Student Activity Fee - Athletic Fee
$2.90	$2.90	Student Development Fee
$2.50	$2.50	Transit/Parking Services Fee
$13.20	$13.20	University Technology and Infrastructure Maintenance Fee
$15.50	$15.50	Academic Excellence Fee
$5.15	$5.15	Student Union Renovation Fee

Tuition Online Programs

Charged to Graduate students in 100% Graduate online degree programs and are not taking courses on campus; one per hour rate cost for the course based on residency. Please note: additional fees of University-Wide (Mandatory), College Based, and Fees Based Upon Status Classification are **not** assessed in addition to the online program tuition rate. However, there might be some individual course-related fees assessed.

	Per Credit Hour Amount
Graduate Online Program Resident Tuition Rate	$489
Graduate Online Program Non-Resident Tuition Rate	$530

Center for Health Sciences Graduate Programs (2025-2026)

Per credit hour unless otherwise specified.

Resident	Non Resident	
$233.80	$879.75	Tuition
$233.80	$364.00	Tuition - Online Rates
$10.41	$10.41	Graduate Student Technology Fee
$7.50	$7.50	Graduate Library Automation Materials Fee
$3.35	$3.35	Graduate Academic Records Fee
$64.00	$64.00	Health Fee (per semester)
$4.00	$4.00	Security Services Fee
$7.72	$7.72	Activity Fee
$3.00	$3.00	Graduate College Program Fee
29.49	29.49	Facility Maintenance Fee (Academic Service Fee, Not Mandatory)

Center for Health Sciences Master of Physician Assistant Studies Program 2025-2026

Fees per semester unless specified[1]

Resident	Non Resident	
$6,075.00	$13,275.00	Tuition per semester (fall & spring)
$1,350.00	$2,950.00	Tuition per semester (summer)
$112.50	$112.50	Student Technology Services Fee
$25.00	$25.00	Student Technology Services Fee (summer)
$162.00	$162.00	Library Automation and Materials Fee
$36.00	$36.00	Library Automation & Materials Fee (summer)
$36.00	$36.00	Academic Records Fee
$8.00	$8.00	Academic Records Fee (summer)

$64.80	$64.80	Security Services Fee
$14.40	$14.40	Security Services Fee (summer)
$194.40	$194.40	Clinical Skills Equipment Fee
$43.20	$43.20	Clinical Skills Equipment Fee (summer)
$83.35	$83.35	Student Activity Fee
$18.52	$18.52	Student Activity Fee (summer)
$164.25	$164.25	Student Facility Fee
$36.50	$36.50	Student Facility Fee (summer)
$57.60	$57.60	Student Health Fee
$12.80	$12.80	Student Health Fee (summer)
$56.25	$56.25	Student Malpractice Insurance Fee
$12.50	$12.50	Student Malpractice Insurance Fee (summer)
$225.00	$225.00	Board Exam Prep Fee
$50.00	$50.00	Board Exam Prep Fee (summer)
$78.75	$78.75	Wellness Fee
$17.50	$17.50	Wellness Fee (summer)
$40.00	$40.00	Year 1 - White Coat Fee (summer)
$60.00 per semester	$60.00 per semester	Year 2 - Student Union Fee (fall, spring & summer)
65.00 per semester	65.00 per semester	Year 2 & 3 (summer) - Clinical Rotation Fee
$275.00 (Summer Only)	$275.00 (Summer Only)	Year 2 - Communications Skills Fee
$200.00 (Summer Only)	$200.00 (Summer Only)	Year 2 - Pediatric Advanced Life Support Fee
292.50 per semester	292.50 per semester	Year 2 (fall/spring) & Year 3 (fall) - Clinical Rotation Fee
$40.00 per semester	$40.00 per semester	Year 4 - Graduation Fee

1

These fees do not include course fees or clinical rotation fees with costs ranging from $65-$292.50.

College of Veterinary Medicine (2025-2026)

Oklahoma Residents (fees per credit hour)

$10,215.00	Resident Tuition Per Semester
$4.35	Academic Records and Maintenance Fee
$0.30	Daily O'Collegian Fee
$5.95	Student Facility Fee, General
$3.00	Student Facility Fee, Campus Rec
$6.00	Health Service Fee
$7.80	Library Automation and Technology Fee
$2.50	Student Activity Fee
$5.50	Student Activity Fee - Athletic Fee
$2.75	Student Development Fee
$2.50	Transit/Parking Services Fee
$5.00	University Technology & Infrastructure Maintenance Fee
$15.00	CVM Technology Fee
$11.85	Advising and Assessment Fee
$13.00	Academic Facilities Fee-CVHS
$100.00	Year 1 - Student Orientation & Enrollment Fee
$200.00	Year 1 Program Fee (per semester)
$150.00	Year 2 Program Fee (per semester)
$450.00	Year 3 Program Fee (per semester)

Non-Residents of Oklahoma (fees per credit hour)

$23,397.50	Non-Resident Tuition Per Semester
$4.35	Academic Records and Maintenance Fee
$0.30	Daily O'Collegian Fee
$5.95	Student Facility Fee, General
$3.00	Student Facility Fee, Campus Rec
$6.00	Health Service Fee
$7.80	Library Automation and Technology Fee
$2.50	Student Activity Fee
$5.50	Student Activity Fee - Athletic Fee
$2.75	Student Development Fee
$2.50	Transit/Parking Services Fee
$5.00	University Technology & Infrastructure Maintenance Fee
$15.00	CVM Technology Fee
$11.85	Advising and Assessment Fee
$13.00	Academic Facilities Fee-CVHS
$100.00	Year 1 - Student Orientation & Enrollment Fee
$200.00	Year 1 Program Fee (per semester)
$150.00	Year 2 Program Fee (per semester)
$450.00	Year 3 Program Fee (per semester)

College of Veterinary Medicine students who repeat course work will be charged an amount per credit hour for Oklahoma residents and nonresidents. Nonresidents will also be charged nonresident tuition per credit hour.

Mandatory Fees for Special Services

All students pay special fees each semester to contribute to the betterment and general welfare of the campus community.

Students regularly enrolled in the University are assessed facility, health, and activity fees that entitle them to use the Student Union, the Colvin Physical Education Center, and the Health Clinic, and that provide support for student governance, organizations, and programs.

The activity fees provide partial support to such programs, services, and organizations as the Student Government Association, collegial student councils and related student organizations, Allied Arts, fine arts, athletics, intramural activities and sports clubs, minority student organizations, and the Student Activities office.

The academic facilities fee funds renovation, maintenance, operations, and construction of classroom and other academic facilities necessary to support contemporary instruction and the demands of growing enrollment.

The academic excellence fee provides for new faculty positions and/or helps increase existing faculty salaries up to peer averages.

The academic records and maintenance fee provides for the basic graduation cost, the maintenance of the academic record system and issuance of official transcripts.

The advising and assessment fee provides for skills assessment and evaluation of students' capabilities at various stages of their academic careers, and to get feedback from students regarding their course work. This fee also supports the commitment to academic advising within each college to create a collaborative decision-making framework which students can identify and realize their educational goals. The goal is to preserve personalized advising services, reduce the advisor/student ratio in high demand areas and to develop advising technology such as degree audit systems to support an increased graduation rate. Support is also provided to students with career development, employment and internship services, including expanded interview opportunities, placement preparation, and other programs related to success after graduation.

The health services fee is assessed for comprehensive health and pharmacy services.

The library automation and technology fee defrays the cost of equipment, software, and other aspects related to operating the online computerized library service. This fee also protects student access to heavily-used electronic journals and other information services.

The life safety and security fee provides for the assessment and continued implementation of campus safety measures that includes the "Code Red" emergency notification system to notify students and staff via voice mail, e-mail or text messages should there be an emergency situation. It also helps fund positions within the OSU Police Department.

The O'Collegian fee supports the production and distribution of the newspaper, the Daily O'Collegian, which is an award-winning campus newspaper.

The transit and parking services fee assists with maintenance and operations of the OSU Transportation Services.

The student development fee is used to support student participation in orientation efforts which are linked to recruitment and retention of freshmen as well as transfer students. Development and leadership opportunities for minority students will also be provided by these resources. It is also used to support campus life to cover costs for the guest speaker series, Student Union programs and the Student Union Activities Board.

The university technology and infrastructure maintenance fee provides for the maintenance of existing facilities, and the expansion and development of central and collegiate facilities, software, and multimedia capabilities. This fee also covers increasing costs in multiple areas, including network and system infrastructure, hardware and software costs and communications.

Certain groups of students in special courses may be on campus for very short time intervals or may be required by the University to reside away from the campus area for the entire semester. Such students will be prevented from participating in campus activities and will not be charged student activity, health, student development, and transportation fees when enrolled:

1. only in a specialized course(s) offered for a special interest group and not in any other course(s) in the University or
2. in a course(s) which requires that the student reside out of area for the entire semester or summer session (clinical laboratory science, geology and forestry summer camps, etc.).

Other extenuating circumstances may be cause to consider denying use of and charge for these facilities or participation in activities sponsored by these fees.

Special Fees (In Addition to Mandatory Fees)

Application fees below:

Undergraduate International Students	$75.00
Undergraduate Domestic Students	$50.00
Graduate Domestic Degree-Seeking Students	$50.00
Graduate Domestic Nondegree-Seeking Students	$25.00
Graduate International Students	$75.00

Automobile parking permit (per year):

Residential Life/Family Housing Permit	$135.00
Commuter Student Permit (Silver & Green Zones)	$163.00
Student Commuter Monroe St. Garage Permit	$241.00
Student SW (Wentz Lane Garage) Permit	$404.00
Student Commuter (Park & Ride) Permit	$79.00
Student Commuter Fourth Ave. Garage Permit	$344.00

Other Fees:

Audit without credit: tuition and fees are the same as credit enrollments	
Infrastructure Fee - All students entering OSU Summer 2023 and after (per credit hour)	$24.00

Infrastructure Fee - All students enrolling prior to Summer 2023 (per credit hour)	$12.00
Student Success Fee - Incoming Summer 2023 or after - Undergraduate Only (Per Credit Hour)	$16.00
Student Success Fee - All students enrollment prior to Summer 2023 - Undergraduate Only (Per Credit Hour)	$8.00
CVM Student Orientation & Enrollment Fee	$100.00
Duplicate/Replacement Diploma	$50.00
Electronically-Delivered Transcript (per transcript; optional service)	$9.00
Former Student Paper Transcripts (per transcript)	$12.00
Enrollment Deposit for Undergraduate Programs	$300.00
Enrollment Deposit for Graduate Programs	up to $2,000
Aviation Professional Pilot Option Startup Fee	$1,000.00
Graduate-Level Business Professional Fee	$250.00
Graduation Fees for Fourth-Year Osteopathic Medicine Student	$40.00
Health Risk Assessment Fee for First-Time Students (Stillwater Campus Only)	$20.00
International Student Status/ Maintenance Fee (Fall/Spring/ Summer Semester)	$150.00
Late Enrollment Fee	$100.00
Remedial Courses: Supplementary Fee (Per Credit Hour, in addition to the general fee)	$24.00
Transfer Student Orientation Fee	$100.00

Reinstatement Fee for Doctoral Candidates below:

Resident	$830.00
Nonresident	$2,060.00

College-Based Fees (per credit hour):

Agriculture Program Fee	$107.50
Agriculture Technology Fee	$8.50
Agriculture Online or Electronic Media Delivery Fee*	$13.35
Animals & Food Science Fee (all ANSI courses and any FDSC courses crosslisted)	$13.00
Arts & Sciences Program Fee (Undergraduate Only)	$88.00
Arts & Sciences Technology Fee (Undergraduate Only)	$10.00
Arts & Sciences Online or Electronic Media Delivery Fee (Undergraduate Only)*	$15.80
Business Program Fee	$78.50
Business Technology Fee	$7.50
Business Online or Electronic Media Delivery Fee*	$29.80
Business Instruction Infrastructure Fee	$9.00
Business Graduate Program Fee	$6.00
College of Professional Studies Program Fee	$112.75
Education & Human Sciences Program Fee (Undergraduate Only)	$83.00
Education & Human Sciences Program Fee (Graduate Only)	$55.00
Education & Human Sciences Technology Fee	$12.00
Education & Human Sciences Online or Electronic Media Delivery Fee (Undergraduate Only)*	$17.75
Education & Human Sciences Online or Electronic Media Delivery Fee (Graduate Only)*	$25.00
Engineering Program Fee	$138.00
Engineering Technology Fee	$31.50
Engineering Online or Electronic Media Delivery Fee*	$13.75
Graduate Program Fee for Graduate Masters, Graduate Certificate or Graduate Special Students	$2.50
Graduate Program Fee for Graduate Doctorate or Doctorate Specialist	$3.00
HORT & LA Facilities/Equipment/ Lab	$12.00
Music Program Fee (all JAZZ, MUSI and MSIN courses)	$30.00
School of Global Studies Program Fee (Graduate)	$50.00
School of Global Studies Technology Fee (Graduate)	$25.00
UNIV 1000 and Above Course Fee	$88.00

*Standard outreach courses will be charged an Online Fee, while all other standard courses (traditional, blended/hybrid, etc.) will be charged an Electronic Media Delivery Fee.

Outreach Course Fees

Standard Outreach Credit Courses

Standard outreach credit courses adhere to the same tuition and fee schedule as other courses. These courses can be online courses, video courses, Correspondence Education courses and other distance format courses that do not include student travel.

Non-Standard Outreach Credit Courses

Tuition and fees for non-standard outreach credit courses vary. These courses typically are student travel courses and other special approved

programs such as classes within a consortium agreement with an external institution. Both tuition and fees for these courses vary depending on the cost to maintain the course, consortium or related agreements, current travel fees, etc. Study abroad courses will be assessed a special course fee of $200.00 per course. Tuition and fees are final when the course is proposed by the related academic unit and approved by Academic Affairs prior to the first day of the course. Students may contact the College Outreach Office within the academic unit offering the course or contact the University Outreach (405-744-1000) to determine tuition and fees for a course.

Other Expenses

Books and supplies used by the student are available in the Student Union Bookstore at reasonable prices and may be charged to the student's Bursar account. Additional incidental and personal expenses such as clothing and entertainment will depend upon the individual student.

Sponsored International Students

Oklahoma State University charges a special administrative/management fee for sponsored international students and scholars who require third party billings and need extra assistance or whose sponsors have indicated a requirement for supplementary assistance beyond that of regular university programming. The customary sponsored student fee is $350 per semester. Sponsored programs may also include items such as special training, research costs, equipment, enrichment, required travel or any other needs deemed necessary by the sponsor. It is the charge of the Office of International Students and Scholars (ISS) to provide the most complete and appropriate educational program for sponsored international students and scholars. The ISS sponsored program is designed to coordinate, expedite and administer all aspects of procedures pertaining to related training. Sponsoring agencies should direct all matters to the Office of International Students and Scholars, 250 Student Union. E-mail may be sent to karen.sebring@okstate.edu. The fax number is 405.744.8120.

Tuition and Fee Waivers for Faculty and Staff

Permanent, full-time, active members of the faculty and staff who meet the requirements under University Policy and Procedures 2-0108 or 3-0744 are eligible to enroll for credit or audit one course per semester or a maximum of five hours during normally scheduled working hours and receive discounted tuition and fees as indicated below. To be eligible under this fee policy, an employee must submit a completed Request for Faculty-Staff Fee Waiver form to the Office of the Registrar prior to the beginning of classes. If the form is not on file prior to the beginning of classes, the student will not be granted the waiver in fees. There is no limit on the number of courses a staff member may enroll in after normal working hours. If enrollment does not exceed one course, only the department head's approval is needed to receive a fee waiver. If the staff member is enrolled in more than one course, his or her dean and vice president must also give approval for a fee waiver.

For eligible full time 100% faculty or staff enrolled in University courses, the following fees will be waived:

a. Student activity fees
b. Student activity fee - Athletic fee
c. Health Services fee
d. Transit/Parking Services fee
e. Student Development fee
f. Daily O'Collegian fee

Faculty and staff must pay 50% of the general tuition, 100% of any additional fees not listed above, as well as 100% of any special course charges. Some courses taught through year-long independent study, extension and outreach are excluded. For faculty and staff members who enroll in NOC-Stillwater courses, the fees listed above may be waived, but no tuition is waived. For more information, contact the department offering the course to determine whether the tuition waiver applies.

Any individual 65 years or older may audit a class at no charge. The audit fee is also waived for faculty and staff who have retired from the University under the Oklahoma Teacher Retirement System's "Rule of 80" or "Rule of 90" regardless of age at time of retirement.

Refunds

Refunds and deposits that may be due a student will be first applied to encumbrances owed to the University.

Drop/Withdrawal Refund Policy

A student dropping a course:
prior to the end of the sixth day of a regular semester, or the third day of the eight week summer session, or during the proportionate period for block or short courses, will receive a 100-percent refund of tuition and fees.

A student dropping a course:
after the sixth day of a regular semester but prior to the end of the second week, or after the third day of the eight week summer session through the fifth day, or during the proportionate period for block or short courses, will receive a partial refund of tuition and fees.

A student dropping a course:
after the second week of the regular semester, or after the first week of the eight week summer session, or during the proportionate period for block or short courses, will not receive a refund. (See Policy and Procedures Letter 02-0206.)

The institution may be required to return Federal Title IV aid for students who received Title IV aid disbursements and subsequently drop/withdraw. If the institution is required to return Title IV funds, the student will be required to pay for the institutional charges originally paid by the aid returned. Please visit the Return to Title IV policy (https://go.okstate.edu/scholarships-financial-aid/types-of-aid/eligibility-for-federal-state-aid/withdrawal-and-return-of-title-iv-funds.html).

Repayment Policy

Financial aid is considered to be used first for direct educational costs (tuition and fees) and, if the student is in University housing, for room and board. If a student financial aid recipient withdraws and is eligible for a refund of tuition and fees and/or room and board, all or part of this refund will be used to reimburse Title IV federal financial aid program(s); state programs which apply to tuition (i.e. OKPromise); or institutional tuition and fee waiver programs.

If a student receives Title IV federal aid in excess of institutional charges and subsequently withdraws, he/she may be required to return a portion of the aid. The student is ineligible for further aid until the required repayment has been made. The aid is returned on the student's behalf and a charge is placed on the student Bursar account for the repayment. For additional information, please visit the Return to Title IV policy

(https://go.okstate.edu/scholarships-financial-aid/types-of-aid/eligibility-for-federal-state-aid/withdrawal-and-return-of-title-iv-funds.html).

Refund Policy for Students Entering Military Service

If a student is called to active military service during the term in which he or she is enrolled and has not completed sufficient work for receiving grades, the University will waive tuition and fees for that term. The student should submit a withdrawal form to the Office of the Registrar. Once the student has withdrawn and submitted a copy of the military orders, the student will receive a 100% waiver of the tuition and fees or a 100% refund of tuition and fees paid. The military orders, if not available at the time of withdrawal, may be submitted at a later date at which time the waiver will be applied.

Housing and Residential Life Rates

All rates can be found on the Housing and Residential Life website at reslife.okstate.edu (https://reslife.okstate.edu). Rates include utilities (gas, electric, water, sewer, trash/recycling, internet, and Wi-Fi) and free use of laundry facilities. Rates are subject to change by approval of the Oklahoma State University Board of Regents. Monthly rates are provided for calculation purposes of lease buyouts and late cancellation charges only. Visit Financial Responsibility for more information about housing fines, fees, charges and refunds.

Undergraduate Housing

All undergraduate student housing rates are quoted per person. Only undergraduates are assigned to traditional halls, suites, deluxe suites and deluxe apartment halls which vary in rates. Most halls are coed and individual units are same-gender. All undergraduate units are fully furnished except for the Brumley Neighborhood.

Undergraduate Housing Leases

- **Academic Year.** Beginning the Wednesday before classes start in August through the end of the spring semester in May
- **Fall Semester.** Beginning the Wednesday of classes in August through the end of December
- **Spring Semester**. End of December through the end of the spring semester in May
- **Summer Semester.** Middle of May through the beginning of August

Graduate, married with or without dependents, single with dependents

- Year-round Housing Lease (https://reslife.okstate.edu/registration/dates-deadlines/fgsh-registration.html) is the academic year with eligibility for a summer extension for graduate students, married with or without dependents, single with dependents, and others who qualify. Residents will be assigned to one of the apartment neighborhoods. Apartment unit rates are split between two graduate students (roommates) or charged in full to the OSU student.

Dining/Meal Plans

Meal plans may be selected during housing registration. Incoming freshmen are required to select the Bronze plan. For additional information about meal plan options, changing your meal plan selection and pricing information, visitOSU Dining Services.

University Dining Services

When it comes to food, it's all about choices - and with 30 unique dining options, there's something for every Cowboy. From national franchises to local favorites, healthy meals to indulgent snacks, the possibilities are endless. Whether you want an early-morning coffee or need a late-night snack, we've got it covered. We recognize that our students have varying needs and tastes when it comes to food; that is why we offer some of the most flexible plans in the nation.

Being a part of “America’s Healthiest Campus”, means there are always well-balanced, nutritious options for our customers. Our Choose Orange food labeling program encourages students to choose healthier options while dining on campus by easily identifying better-for-you choices without having to read a nutrition label. The program is based on the U.S. Dietary Guidelines and qualified items are identified by the Choose Orange icon.

All freshmen living on campus are required to have a meal plan at the bronze level or higher. Campus meal plans are available to on- or off-campus students and residents, as well as any staff or faculty members.

How our Meal Plans Work

One week before the start of each semester, your total meal plan amount is automatically loaded on your student ID, which can be swiped at any dining outlet on campus like a debit card. You can immediately spend as much or as little as you want, whenever you want and your balance declines as you make purchases.

Your meal plan is valid anywhere you can eat or drink on campus, including on-campus sporting venues. Each item on campus has a dollar value associated with it and you are only charged that specific amount each time you use your meal plan to dine on campus – no “blocks,” “meals” or limits!

Didn’t use your full meal plan this semester? No worries! 100% of your remaining balance at the end of the fall semester will roll over to the following spring semester as long as you maintain a valid meal plan contract. Rollover will only be available from the fall to the spring semester within same academic year (this does not include the non-contract G plan). To learn more about everything UDS has to offer, please visit dining.okstate.edu (http://dining.okstate.edu). For meal plan questions, call 405-744-4920, email dining@okstate.edu, or visit the Meal Plan office at 301 Student Union.

The table below describes the University Dining meal plans available:

Current 2025-2026 Plans

Meal Plan	Meal Plan Rate Per Semester	Dining Dollars Per Semester
Platinum	$2,425	$2,275
Gold	$2,155^	$2,005
Silver	$1,905^	$1,755
Bronze*	$1,700^	$1,550
Copper	$1,330^	$1,180
Plan G (non-contract)**	$100 increments	Not subject to rollover limits or restrictions.

*Minimum meal plan for freshmen living on campus.

^$150 operations surcharge per semester to all contracted meal plans to help offset the cost associated with back-end systems and infrastructure, repairs and maintenance, debt service repayment, and major deferred maintenance to support dining service program.

**Option for students who wish to have occasional meals on campus. Starts with a $100 minimum balance and is loaded in $100 increments as the student wishes. Full balance will carry from semester to semester.

University Police Services

The OSU Police Department provides a full range of police resources, including patrol, investigations, crime prevention, facilities security analysis, event planning, training and more. The OSUPD was the first agency in Oklahoma to receive accreditation from the Oklahoma Association of Chiefs of Police. The OSUPD also has a 24-hour 911 dispatch center on campus, connecting our campus community with the resources they need when they need them.

SAFETY RESOURCES FOR OUR CAMPUS COMMUNITY

RAVE Guardian: (https://safety.okstate.edu/safety-resources/rave-guardian.html) As part of OSU's commitment to campus safety, the campus has adopted Rave Guardian, a free mobile app that turns any smartphone into a personal safety resource for anyone with an Oklahoma State email address. Students, faculty and staff can use the app to chat with dispatchers, send anonymous tips, set a safety timer, access important links and more.

Cowboy Alerts (https://safety.okstate.edu/safety-resources/cowboy-alert.html): OSU also has the ability to communicate with the campus community in the event of an emergency. OSU officials will send a message via text or phone call to members of the OSU community with information regarding the event and how they should proceed.

SafeWalk (https://safety.okstate.edu/police/other-services/safewalk.html): The SafeWalk program employs and trains students as public service officers to escort anyone from one campus location to another from 9 p.m. to 2 a.m., seven days a week. Need a SafeWalk outside the hours of 9 p.m. to 2 a.m.? Request one. The OSUPD has officers on duty around the clock. They'll be happy to walk with you to your next on-campus destination or to Greek housing, but the timing will depend on the call volume at the time. To request a SafeWalk, call 405-744-6523 or use the Rave Guardian app, your personal safety resource.

Blue Phones: OSU has more than 75 emergency "blue phones" around campus. These phones, which can be used to request immediate help from the police, have been in operation since 1979.

Security and Access Control

It is OSU's policy to lock the doors of buildings that are not in use, although some buildings on campus are rarely locked, since students study and work on projects all hours of the day and night. During non-open access hours for OSU's residence halls, all doors are locked except the front desk entrance for halls with a staffed front desk.

Community Policing

The OSU Police Department is a leader in community policing, building trust through transparency, community engagement and open discussion with the community we serve. We are on a path of continuous improvement and increased integration within our community.

Core Campus Division: The Oklahoma State University Police Department's Core Campus Division embodies the philosophy of community policing. Officers are assigned to the heart of campus, areas with the highest concentration of students, faculty, staff and guests. Stationing officers in the heart of campus — in areas not easily accessible by roads — has also reduced call response times. The Core Campus Division includes a substation on the second floor of the Student Union (225), where officers can fill out reports, meet with students and be a calming and welcoming presence.

Community Liaisons: The OSUPD is aiming for a new level of community engagement with tailored service to build bridges with specific campus populations. The liaison program pairs officers with athletics teams, OSU's Residential Life and campus community groups that represent underserved or marginalized populations. The goal is to build relationships and foster dialogue between law enforcement and these communities. The liaisons coordinate with the teams, Residential Life and campus groups to offer insight into law enforcement, promote available resources and offer support by being a known point of contact with the OSUPD. In the end, it's all about relationships.

Crime Prevention and Education

The department is committed to reducing crime with thoughtful education and innovative programs to improve the culture and dynamics on campus. Recent efforts include:

- **Training:** OSUPD offers trainings across campus in active assailant response, training on drug and alcohol abuse awareness and the Rape Aggression Defense system, a comprehensive course that begins with awareness, prevention, risk reduction and avoidance and then progresses to the basics of hands-on self-defense training.
- **Crisis Negotiations Team:** The OSUPD is part of the Stillwater Multi-Jurisdictional Special Operations Team that includes crisis negotiators. Two OSUPD officers have completed the training and respond county-wide when there is a need to diffuse a situation in hopes of a peaceful resolution.

The Clery Act

Interested in crime statistics for the OSU-Stillwater campus? The OSU Public Safety Department publishes the Annual Security and Fire Safety Report (https://safety.okstate.edu/police/clery-act/annual-security-reports.html) for the three most recent calendar years. The report covers Clery-related offenses on campus, in the residential halls, off-campus properties controlled by OSU and incidents adjacent to OSU in locations defined as public property.

See the report at http://police.okstate.edu (http://police.okstate.edu/). Request a paper copy by calling the Public Safety Office, writing to OSU Public Safety, 104 USDA Building, Stillwater, OK 74078 or by emailing osupd@okstate.edu.

Need to know more?

Stop by police.okstate.edu (https://safety.okstate.edu/police/) to read more about the Oklahoma State University Police Department (https://safety.okstate.edu/police/). Interested in following the OSUPD? Find us at https://www.facebook.com/OkstatePD (http://www.facebook.com/OkstatePD/) and @OkstateSafety.

Support Services

OSU Sexual Assault Victim Advocates

The university treats the Victim Advocates as a confidential reporting option. Victims can visit with a victim advocate to learn about resources available on campus. A Victim Advocate is not required to report any information about an incident to the Title IX Coordinator without a victim's permission. However, the victim advocate will report incidents,

without personally identifiable information, to OSU Police for the purpose of the Clery Act.

Victim advocates can be reached 24/7 via phone or text at 405-564-2129 or via email at advocate@okstate.edu. The 24-hour help-line (405-624-3020) through Wings of Hope is also an option to access a victim advocate.

Student Support

Campus Address and Phone:
232 Student Union, Stillwater, OK 74078
405.744.5470

Website: https://studentconduct.okstate.edu/

Case Management
Case Management provides inclusive, comprehensive support services that empower students to address all aspects of their health and well-being. Case managers are the path-clearers and problem-solvers for OSU students dealing with mental health, academic, relationship, food insecurity and other stressful crises. By providing resources, linkage, education, and expertise, we empower students to break down barriers, clarify needs and navigate complex processes to get back on track to reach their goals.
Case Management provides inclusive, comprehensive support services that empower students to address all aspects of their health and well-being. These services are available to help students navigate challenges while at#Oklahoma State University including challenges related to mental health, physical health, social adjustment,#and#other issues.

Learn more at: https://campuslife.okstate.edu/student-support/casemanagement.html.

Care Team
OSU has a Care team committed to collaboratively supporting students. The focus of the Care Team is to take a proactive approach when identifying students who are under distress and provide them with resources, interventions (early), and referral agencies on campus or in the community. The role of this team is to help students who may be in distress or experiencing challenging or difficult life circumstances.

Behavioral Consultation Team
The Behavioral Consultation Team is a specially trained group of professional staff members from several university departments with mental health, student development, law enforcement, academic, administrative and legal expertise. The team investigates and evaluates threats and other concerning behavior, implements strategies for managing individuals that may pose a threat of harm. The team's goal is to work with all parties involved to effect a safe campus environment.

Report a Concern
There are various forms for requesting support and reporting concerning behavior. To seek help with student behavioral issues and report concerning student behavior or violations of the Student Code of Conduct, report online at: https://reportconcern.okstate.edu.

Student Conduct

Campus Address and Phone:
328 Student Union, Stillwater, OK 74078
405.744.5470

Website: https://studentconduct.okstate.edu/

Student Conduct serves students experiencing challenges through a holistic approach of providing support services, administering the student conduct process, and addressing and preventing sexual violence. Student Support & Conduct provides support services to students who are experiencing challenges that include but not limited to mental and medical health, relational conflicts, trauma, addiction and recovery, social adjustments, and/or difficulties with transition to college.

Code of Conduct
When students enroll at Oklahoma State University, they voluntarily accept terms of performance and behavior consistent with the university's mission, processes and functions, and accept responsibility for compliance with all university policies and contracts, including the Student Code of Conduct. Each student is responsible for reading the Student Code of Conduct and must agree to abide by it in order to enroll. The Code of Conduct is available online at https://campuslife.okstate.edu/student-conduct/site-files/documents/code24-25.pdf.

1 is 2 Many
Oklahoma State University takes acts of sexual violence extremely seriously and believes that 1 victim is 2 many. The university invites all members of the campus community to be part of the effort to maintain a safe and productive environment in which to live, learn, and be successful by committing to end sexual violence and sexual harassment. It is important for members of our community to understand and receive consent, intervene when necessary by being an active bystander, and support victims of sexual violence. Student Support & Conduct provides victim services, investigates allegations of sexual violence, and leads sexual violence prevention efforts through the 1 is 2 Many program. All new students are required to complete online 1 is 2 Many Training, an online sexual violence prevention program. This video-based program will provide critical information about consent, bystander intervention, sexual assault, dating and domestic violence, stalking, and much more. Complete the training at https://1is2many.okstate.edu/student-training.html.

Care Team
OSU has a Care team committed to collaboratively supporting students. The focus of the Care Team is to take a proactive approach when identifying students who are under distress and provide them with resources, interventions (early), and referral agencies on campus or in the community. The role of this team is to help students who may be in distress or experiencing challenging or difficult life circumstances.

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Role of University Housing and Residential Life

Hall staff—including community mentors, assistant residential community educators, and residential community educators—continually attend sexual assault training programs. In these programs, staff learn about available resources and how to respond to a student who has been victimized by a sexual or physical attack.

Role of University Counseling Services

The psychological and emotional trauma after assault can be painful. Possible symptoms include: changes in appetite, sleep disturbances, difficulty focusing on work or school, lack of trust, feelings of guilt or shame, depression, mood swings, and relationship and communication problems. These symptoms are normal reactions to an abnormal situation. University Counseling Services provides individual and group counseling services for those who have experienced sexual or physical assault. Services aim to aid in processing the event, healing, and recovery. Services are available to all Oklahoma State University students. The Student Counseling Center will provide confidential and respectful services to Oklahoma State Students..

OSU Alumni Association

The OSU Alumni Association engages alumni, students and friends to experience lifelong connections to the Alumni Association, Cowboy Family and Oklahoma State University.

The organization offers numerous programs for current students designed to educate them on OSU history and traditions, engage them in OSU programs and events, and prepare them to be productive graduates of the university.

Membership

With nearly 3,000 members, the Student Network of the OSU Alumni Association is one of the largest student groups on campus. Members receive many exclusive benefits to use both as students and alumni, including discounts at dozens of Stillwater merchants and 800 online nationwide retailers, a monthly e-newsletter, exclusive T-shirts, event invites, networking opportunities and more.

By joining as a student, you lock in a credit of $400 toward your Life Membership, making it only $600. The OSU Alumni Association has several payment options, including a $75/semester Bursar charge for eight semesters or recurring credit card payments as low as $10/month. Students may opt into the Bursar charge program at any time, and post-graduation payment plans are available for non-freshmen who graduate before reaching Life Member status. Annual memberships are also available for $30 per year. Join as a life or annual member at **ORANGE**CONNECTION.org/students.

Student Network Board

The Student Network Board is the premier leadership organization at OSU. These students serve to support the OSU Alumni Association president and represent the organization at select alumni and campus events. Selection onto the board offers students unique and valuable alumni networking opportunities throughout the academic year. Board members are also eligible to apply to President's Partner, a select group of students who serve the OSU Office of the President and assist hosting events for university leadership. Selection is based on GPA, current and previous Student Network involvement, and an interview process. Students may learn more and apply early in the spring semester at **ORANGE**CONNECTION.org/snb.

Homecoming

America's Greatest Homecoming has been presented each year by the OSU Alumni Association since 1920. It is run by more than 150 Homecoming student committee members in collaboration with thousands in the Greek, residential life and student organization communities. Students interested in serving on a committee may apply for the Big Committee in September 2025 and the Steering Committee in January 2026. Find more information at **ORANGE**CONNECTION.org/homecoming.

Class Rings

Students with 60 or more credit hours are eligible to purchase an Official OSU Class Ring. The Alumni Association sponsors the ring program officially recognized by the university and hosts a ceremony each semester to present recipients with their rings. Alumni Association members receive a $50 discount on all rings, and life members receive their ring in an exclusive orange ring box. Visit **ORANGE**CONNECTION.org/ring or call 405-744-5368 for more information.

Student Awards

The Alumni Association recognizes students for their excellence in scholarship, campus leadership and service to campus and community with two awards for senior undergraduate students. Seniors are encouraged to apply in September 2025 at **ORANGE**CONNECTION.org/awards.

OSU Foundation

The Oklahoma State University Foundation is a 501(c)(3) not-for-profit corporation. Gifts to the Foundation are deductible under Section 170 of the Internal Revenue Code. Established in 1961, the Foundation seeks to transform the university through the power of generosity and manage donated resources efficiently and effectively. Its mission is to unite donor passions with university priorities to elevate the impact of Oklahoma State University.

The OSU Board of Regents, through a resolution passed in 1966, directed that gifts or donations made for the benefit of Oklahoma State University be made to the OSU Foundation.

Although it is a separate and distinct legal entity from the Oklahoma State University System, the OSU Foundation maintains a close and cooperative working relationship with the University to establish fundraising priorities and cultivate constituency relationships.

OSU-Tulsa

Johnny Stephens, Pharm.D.—Interim President
Craig Freeman, J.D.—Vice Provost and Dean, College of Professional Studies

Oklahoma State University (OSU) offers undergraduate and graduate programs at Oklahoma State University-Tulsa (OSU-Tulsa). For undergraduate programs, lower-division courses (1000- and 2000-level) are available at Tulsa Community College or other area two-year colleges. Students should consult an OSU-Tulsa academic counselor for a list of transferable courses. Upper-division courses (3000- and 4000-level) and graduate courses (5000- and 6000-level) are offered at OSU-Tulsa.

Students applying to OSU-Tulsa must be admitted to either the academic degree program of choice or as a non-degree seeking student. All students must comply with admission procedures (p. 33) of OSU. Once admitted, regulations published in the OSU Catalog (p. 1004) govern the student's pursuit and completion of the degree program.

OSU provides admission, enrollment, financial aid and academic advising services at OSU-Tulsa. Scholarships are also available from OSU-Tulsa. Students may enroll in classes in Tulsa or Stillwater and pay tuition at either location. The student's official academic records and transcripts are maintained by OSU at the Stillwater campus. Faculty are hired by OSU and the college offering the degree program. Upon completion of an academic program, the degree is granted by OSU. Students are responsible for making certain each course taken will apply toward the chosen degree or certificate program. Courses taken from other participating universities are treated as transfer credit courses. Transfer credit hours are applied to a student's degree program in accordance with regulations of OSU.

OSU-Tulsa is administered by a Board of Trustees and is under the governing authority of the OSU Board of Regents. Classes are held at 700 N. Greenwood Ave., Tulsa, OK 74106-0702.

Semester class schedules for OSU-Tulsa are available online on Self - Service Banner (https://registrar.okstate.edu/registration_enrollment/osu_registration_system.html). For additional information on undergraduate programs, contact the OSU-Tulsa campus at 918-594-8355. For additional information on graduate programs, contact the OSU-Tulsa Graduate Student Services Center at 918-594-8445. Information is also available on the OSU-Tulsa website at www.tulsa.okstate.edu (http://tulsa.okstate.edu/).

ACADEMIC CALENDAR

Add, drop, withdrawal and refund dates listed below are for courses that extend through the entire term. Proportionate dates apply to block and short courses. See the "Short Courses with Unique Drop/Add Deadlines" page of the Registrar website at registrar.okstate.edu (http://registrar.okstate.edu) for more information. Additional deadlines apply to graduate students. See the Graduate College Academic Calendar (p. 2927).

2025-2026

	Fall 2025	Spring 2026	Summer 2026 (main 8-week term)
Late Enrollment Fee (Assessed if initial enrollment occurs on or after this date)	Aug 18	Jan 12	Jun 8
Class work begins	Aug 18	Jan 12	Jun 8
University holiday (spring)		Jan 19	
100% Refund, Nonrestrictive Drop/Add Deadline[1]	Aug 25	Jan 20	Jun 10
Partial Refund, Restrictive Drop/Add Deadline[2]	Aug 29	Jan 23	Jun 12
University holiday (fall)	Sep 1		
Six-week grades due from faculty (noon)	Oct 1	Feb 25	
Students' Spring Break		Mar 16-20	
Deadline to file graduation application (for name to appear in the fall commencement program)	Nov 3		
Deadline to file graduation application (for name to appear in the spring commencement program)		Apr 1	Apr 1
University holiday (summer)			Jun 19
University holiday (summer)			Jul 3
W Drop/Withdrawal Deadline[3]	Nov 7	Apr 10	Jul 17
Students' Fall Break	Nov 24-26		
University holiday (fall)	Nov 27-28		
Assigned W or F Drop/Withdrawal Deadline[4]	Dec 1	Apr 24	Jul 24
Pre-Finals Week	Dec 1-5	Apr 27-May 1	
Class work ends	Dec 5	May 1	Jul 31
Final Examinations	Dec 8-12	May 4-8	
Commencement	Dec 12-13	May 8-9	
Grades due electronically from faculty (noon)	Dec 17	May 13	Aug 5
University holiday (winter)	Dec 24-Jan 2		
Intersessions and Pre-Sessions			
Fall Pre-Session	Aug 4-15		
Winter Intersession (Spring Pre-Session)		Dec 15-Jan 9	
Summer Pre-Session			May 18-Jun 5
Summer 4-Week Parts of Term			
First 4 Weeks			Jun 8-Jul 2
Second 4 Weeks			Jul 6-31

1

Drop/Add and Withdrawal Deadline Details:
100% Refund, Nonrestrictive Drop/Add Deadline:

- add a course (nonrestrictive)
- drop a course with 100% refund and no grade

2

Partial Refund, Restrictive Drop/Add Deadline:

- add a course (requires drop/add card with instructor and advisor signatures)
- drop a course with partial refund and no grade

3

W Drop/Withdrawal Deadline

- drop a course with automatic grade of "W"
- withdraw from all courses with automatic grades of "W" (requires completed Withdrawal Form)

4

Assigned W or F Drop/Withdrawal Deadline:

- drop a course with an assigned grade of "W" or "F" by the instructor (requires completed Request to Drop a Course During the W or F Period form)
- withdraw from all classes with assigned grades of "W" or "F" by instructors (requires completed Withdrawal form)

2026-2027 (Tentative)

	Fall 2026	Spring 2027	Summer 2027 (main 8-week term)
Late enrollment fee assessed after this date	Aug 17	Jan 11	Jun 7
Class work begins	Aug 17	Jan 11	Jun 7
University holiday (spring)		Jan 18	
100% Refund, Nonrestrictive Drop/Add Deadline[1]	Aug 24	Jan 19	Jun 9
Partial Refund, Restrictive Drop/Add Deadline[2]	Aug 28	Jan 22	Jun 11
University holiday (fall)	Sep 7		
Six-week grades due from faculty (noon)	Sep 30	Feb 24	
Students' Spring Break		March 15-19	
Deadline to file graduation application (for name to appear in the fall commencement program)	Nov 2		
Deadline to file graduation application (for name to appear in the spring commencement program)		Apr 1	Apr 1
University holiday (summer)			Jun 18
University holiday (summer)			July 5
W Drop/ Withdrawal Deadline[3]	Nov 6	Apr 9	Jul 16
Students' Fall Break	Nov 23-25		
University holiday (fall)	Nov 26-27		
Assigned W or F Drop/Withdrawal Deadline[4]	Nov 30	Apr 23	Jul 23
Pre-Finals Week	Nov 30-Dec 4	Apr 26-30	
Class work ends	Dec 4	Apr 30	Jul 30
Final Examinations	Dec 7-11	May 3-7	
Commencement	Dec 11-12	May 7-8	
Grades due electronically from faculty (noon)	Dec 16	May 12	Aug 4
University holiday (winter)	Dec 24-Jan 1		
Intersessions and Pre-Sessions			
Fall Pre-Session	Aug 3-14		
Winter Intersession (Spring Pre-Session)		Dec 14-Jan 8	
Summer Pre-Session			May 17-Jun 4
Summer 4-Week Parts of Term			
First 4 Weeks			Jun 7-Jul 2
Second 4 Weeks			Jul 6-30

1

Drop/Add and Withdrawal Deadline Details:
100% Refund, Nonrestrictive Drop/Add Deadline:

- add a course (nonrestrictive)
- drop a course with 100% refund and no grade

2

Partial Refund, Restrictive Drop/Add Deadline:

- add a course (requires drop/add card with instructor and advisor signatures)
- drop a course with partial refund and no grade

3

W Drop/Withdrawal Deadline

- drop a course with automatic grade of "W"
- withdraw from all courses with automatic grades of "W" (requires completed Withdrawal Form)

4

Assigned W or F Drop/Withdrawal Deadline:

- drop a course with an assigned grade of "W" or "F" by the instructor (requires completed Request to Drop a Course During the W or F Period form)
- withdraw from all classes with assigned grades of "W" or "F" by instructors (requires completed Withdrawal form)

COURSES

Explanation of Course Catalog

The Course Catalog includes details of all courses approved for offering by Oklahoma State University. Not all courses are offered each semester or session. Students should consult the current class schedule to determine specific offerings for a selected term.

Courses are listed alphabetically by course subject.

A course catalog listing is comprised of the following elements:

Course Subject. The course subject code is comprised of no more than four letters representing the home department or course subject area.

Course Number. All courses are identified by numbers composed of four digits. The first digit indicates the class year in which the subject is ordinarily taken, although enrollment is not exclusive to student classification (1 – freshman, 2 – sophomore, 3 – junior, 4 – senior, 5 and 6 – graduate, 7 – professional veterinary medicine). Some courses are approved for multiple levels of credit. Course numbers beginning with 0 indicate developmental courses that do not carry University credit. The last digit of the course number indicates the number of semester credit hours. Course numbers ending with 0 indicate a variable credit course.

Course Title. The title of the course.

General Education Requirement Codes. The capital letters in parentheses in some course titles designate courses fulfilling various undergraduate general education requirements. (See University Academic Regulation 3.4.) General education credit is also identified in the course attributes. The code letters designate the general education category for which the course may be used:

D—Diversity
F—Expression Through Fine Arts and Languages
G—Global Cultural Competency
H—Understanding Humanities-Human Heritage & Cultures
L—Laboratory-Based Inquiry
N—Reasoning in the Natural Sciences
Q—Quantitative Thought & Logical Reasoning
S—Exploring Society and Human Behavior

Prerequisite(s). Prerequisite courses, exam scores, or other requirements prior to enrollment are listed in detail (See Academic Regulation 5.6.).

Description. The content of the course and its major emphasis are described.

Credit hours. The number of semester credit hours associated with the course. Courses with course numbers ending in zero are offered for variable credit. Typical variable credit entries are 1-6 credits, maximum 6, and 1-3 credits, maximum 12. The first part of the entry indicates the permissible credit per enrollment, followed by a statement of the cumulative maximum credit which may be earned in the course through repeated enrollment. A semester credit hour is equivalent to (a) sixteen 50-minute class sessions (including examinations) conducted under the guidance of a qualified instructor plus 32 hours of preparation time, or (b) sixteen 3-hour laboratory sessions, or (c) sixteen 2-hour laboratory sessions plus 16 hours of preparation time. These same equivalencies apply to outreach courses, short courses and other learning formats for which academic credit is awarded (University Academic Regulation 4.8).

Contact hours. The actual amount of time per week a student will spend in class (based on a 16-week semester).

Levels. The level indicates whether the course can be offered at the Undergraduate, Graduate, or Professional level. Some courses are approved to be offered at more than one level.

Schedule types. The type of instruction: Lecture/Theory; Lab; Discussion; Independent Study.

Department/School. The department or school offering the course.

General Education and Other Course Attributes. Course attributes reflect attributes that all sections of the course carry toward meeting specific degree requirements. For example, all general education credit designations are listed as course attributes.

Equivalent Courses. Some courses are academically identical or equivalent to other courses that are offered in different departments. Equivalent courses should include "same as..." statements in their course descriptions. Equivalent courses are denoted on the official transcript in accordance with the undergraduate repeat policy (See Academic Regulation 6.13). Credit for only one of the courses will count in the earned hours section of the transcript.

Mutually Exclusive Courses. Courses that are not identical/equivalent but contain similar or significantly overlapping content include "no credit for..." or "may not be used with..." statements in their course descriptions. Mutually exclusive (or overlapping) courses are not listed as repeats, but students may not apply credit for both courses toward a degree. For example, if the description for Course X indicates "No credit for students with credit in Course Y" or "May not be used for degree credit with Course Y," this means that a student may not use both courses to meet requirements for a single degree program. The student may use either Course X or Course Y, regardless of the order in which the courses were completed, but both courses may not be used to fulfill requirements for a single degree program. Thus, once a course is applied to a degree program, the mutually exclusive course may not be used to fulfill requirements for that program, including major hours, elective hours, total hours, etc.

Course Catalog

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Accounting (ACCT)

ACCT 2003 Survey of Accounting
Prerequisites: 24 semester credit hours.
Description: Introduction to financial and managerial accounting concepts and objectives. May not be used for degree credit with ACCT 2103 and ACCT 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 2103 Financial Accounting
Prerequisites: 24 semester credit hours, including ENGL 1113 and MATH 1483 or equivalent.
Description: Financial accounting concepts and the use of financial accounting information in decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 2203 Managerial Accounting
Prerequisites: ACCT 2103.
Description: Managerial accounting concepts and objectives, planning and control of sales and costs, analysis of costs and profits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3001 Practicum in Professional Accounting I
Prerequisites: ACCT 2003 with a grade of "C" or better or both ACCT 2103 and ACCT 2203 with a grade of "C" or better.
Description: Study of current and emerging issues in the accounting profession. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3003 Foundational Accounting Skills
Prerequisites: ACCT 2003 with a grade of "C" or better (or ACCT 2103 and ACCT 2203 with a grade of "C" or better).
Description: Foundational skills and concepts underlying financial accounting and reporting. May not be used for degree credit with ACCT 3004.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3004 Foundational Accounting and Data Skills
Prerequisites: (MSIS 2103 or AGEC 3213) with a grade of "C" or better and ACCT 2003 (or both ACCT 2103 and ACCT 2203) with a grade of "C" or better.
Description: Foundational skills and concepts underlying financial accounting and reporting and data analytics in accounting. May not be used for degree credit with ACCT 3003.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 3013 Federal Income Taxation
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Federal income tax and its relationship to business decision-making; primary emphasis on recognition of the important tax consequences that attach to business transactions and the impact on decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3103 Intermediate Accounting I
Prerequisites: ACCT 3003 or ACCT 3004 with a grade of "C" or better (or ACCT 2103 and ACCT 2203 with a grade of "C" or better and satisfactory score on a qualifying exam covering basic accounting concepts).
Description: Theory and concepts underlying financial accounting and reporting. Previously offered as ACCT 3433 and ACCT 3303. May not be used for degree credit with ACCT 3104.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3104 Intermediate Accounting I and Data Analysis
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Theory and concepts underlying financial accounting and reporting. Foundational accounting data analytics skills. May not be used for degree credit with ACCT 3103.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 3113 Intermediate Accounting II
Prerequisites: ACCT 3104 or ACCT 3103 with a grade of "C" or better
Description: Theory and concepts underlying financial accounting and reporting. Continuation of ACCT 3103. Previously offered as ACCT 4433 and ACCT 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3203 Cost Accounting
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better and STAT 2013 or STAT 2023 or STAT 2053 with a grade of "C" or better.
Description: Cost accounting knowledge and skills required of early career accountants. Topics covered likely to include cost accumulation systems, allocating product costs, planning and controlling costs, standard costing, and profitability analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3603 Accounting Information Systems and Data Analytic Tools
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Accounting information systems knowledge and skills required of early career accountants. Topics likely to include accounting system design and installation, and related internal controls, as well as relevant data analytic tools. Course previously offered as ACCT 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4033 Advanced Federal Income Taxation
Prerequisites: ACCT 3013 with a grade of "C" or better.
Description: Federal income tax law applicable to individuals, corporations, partnerships, trusts and estates, and other specialized topics. Previously offered as ACCT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4073 Tax Planning for Financial Professionals
Prerequisites: ACCT 3104 with a grade of "C" or better.
Description: Fundamental tax law, income taxation for individuals and businesses, and advanced tax reduction strategies. Emphasis on practical application, teaching students how to understand the tax implications of various financial decisions. May not be used for degree credit with ACCT 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4133 Advanced Accounting
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Advanced accounting knowledge and skills required of early career accountants. Topics likely to include accounting for business combinations and consolidations, accounting for governmental and not-for-profit entities. Previously offered as ACCT 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4233 Internal Auditing
Prerequisites: ACCT 2003 and MSIS 3223.
Description: Internal auditing theory, procedures, and practices required of early career accountants. Previously offered as ACCT 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4503 External Auditing
Prerequisites: ACCT 3104 (or ACCT 3103) with a grade of "C" or better and ACCT 3603 with a grade of "C" or better or concurrent enrollment.
Description: External auditing theory, procedures, and practices required of early career accountants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4553 Ethics for Public Accountants
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Ethics concepts and applications required of early career accountants. Topics likely to include basic theories of ethics, including moral reasoning, moral values, relativity and objectivity, freedom and responsibility. Lecture and case approach for examination of issues such as independence, integrity, objectivity, client relationships, employee-employer relations, advertising, preferential treatment, core values and the corporation, and corporate governance, such as Sarbanes-Oxley Act, Foreign Corrupt Practices Act, and SEC regulations. Some states, including Texas, California, Colorado, and Virginia, require the completion of an ethics course to be eligible to sit for the CPA Exam. May not be used for degree credit with ACCT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4623 Expanding Accounting Horizons in the U.S. for Non-Majors
Prerequisites: ACCT 2003 with a grade of "C" or better (or both ACCT 2103 and ACCT 2203 with a grade of "C" or better).
Description: A visit to a region or regions within the United States. An integrated approach to the organization, economic, political, historical, and technological issues impacting the firms, industries, or standard setters visited. May not be used for degree credit with ACCT 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4723 Expanding Accounting Horizons in the US
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: A visit to a region or regions within the United States. An integrated approach to the organizational, economic, political, historical, and technological issues impacting the firms, industries, and standard settlers visited. Effect on the accounting profession of the firms, industries, and standard settlers visited is also examined. May not be used for degree credit with ACCT 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4743 Oil and Gas Accounting
Prerequisites: ACCT 3104 or ACCT 3103 with a grade of "C" or better.
Description: Generally accepted accounting practices and procedures in the oil and gas industry. May not be used for degree credit with ACCT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4763 International Accounting Abroad (G)
Prerequisites: ACCT 2003 with a grade of “C” or better or consent of instructor.
Description: A visit to a location or locations outside the United States. An integrated approach to the cultural, economic, political, historical, and technological effects of the region on international accounting. Comparison of the accounting issues of the region to that of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting
General Education and other Course Attributes: International Dimension

ACCT 4901 Advanced Accounting Tools and Technologies
Prerequisites: ACCT 3104 with a grade of "C" or better.
Description: Advanced accounting analytics and technology skills.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4911 Practicum in Professional Accounting II
Prerequisites: ACCT 3113 with a grade of "C" or better; BSBA-Accounting major or minor.
Description: Study of current and emerging issues in the accounting profession, focusing on the impact of emerging technology.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4930 Accounting Projects
Prerequisites: Consent of instructor.
Description: Special topics, projects and independent study in accounting. Previously offered as ACCT 4010. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4933 Internship in Accounting
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Supervised internship of at least 320 hours in public accounting, industry, government, or not-for-profit sector. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 5830. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4943 CIA Review
Prerequisites: ACCT 3113 with a "C" or better, and ACCT 4233 with a "C" or better or concurrent enrollment.
Description: Review of content and skills tested on the Certified Internal Auditor exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials. May not be used for degree credit with ACCT 4953, ACCT 4963, ACCT 4970, ACCT 5994, or ACCT 5980.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4953 CMA Review
Prerequisites: ACCT 3113, ACCT 3203, and FIN 3113, all with a "C" or better.
Description: Review of content and skills tested on the Certified Management Accountant exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials. May not be used for degree credit with ACCT 4943, ACCT 4963, ACCT 4970, ACCT 5994, or ACCT 5980.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4963 CPA Review
Prerequisites: ACCT 4133 with a grade of "C" or better (or concurrent enrollment) and completion of 120 credit hours.
Description: Review of context and skills tested on the Certified Public Accountant exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4970, ACCT 5994, or ACCT 5980. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4970 Accounting Professional Certification Review
Prerequisites: ACCT 3113 with a "C" or better and Instructor permission.
Description: Review of content and skills tested on specified professional accountancy exams. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4963, ACCT 5994, or ACCT 5980. Graded on a pass-fail basis. Offered for variable credit, 1-4 credits, maximum 4 credit hours. Please see instructor for additional costs associated with the course and related materials.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 5003 Advanced Federal Income Taxation
Prerequisites: Admission to MS in accounting.
Description: Federal income tax law applicable to individuals, corporations, partnerships, trusts and estates, and other specialized topics. Previously offered as ACCT 4033. May not be used for degree credit with ACCT 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5013 Tax Research
Prerequisites: Admission to MS in accounting.
Description: Development and administration of federal tax law with emphasis on the development of tax research skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5043 Taxation of Pass-Through Entities
Prerequisites: Admission to MS in accounting and completion of ACCT 5013.
Description: Federal income tax laws applicable to pass-through entities, including partnerships and S corporations, and their owners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5053 Corporate Taxation
Prerequisites: Admission to MS in accounting and completion of ACCT 5013.
Description: Federal income tax law applicable to corporations and shareholders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5073 Tax Planning for Financial Professionals
Prerequisites: Admission to the MS Accounting or MS Quantitative Finance programs.
Description: Fundamental tax law, income taxation for individuals and businesses, and advanced tax reduction strategies. Emphasis on practical application, teaching students how to understand the tax implications of various financial decisions. May not be used for degree credit with ACCT 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5093 Reimagine: Innovative Accounting and Analytics Mindset
Prerequisites: Admission to the MS in Accounting Program.
Description: Focus on improving innovation, creativity, leadership and communication skills related to the accounting function. Please see Program Coordinator for additional costs associated with the course, related travel costs and scholarship opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5100 Professional Development
Prerequisites: Admission into the MS in Accounting Program
Description: Practical insights into the accounting profession and development of essential career skills. Offered for 1 -3 credit hours, max of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5103 Seminar in Contemporary Accounting Theory I
Prerequisites: Admission to MS in accounting.
Description: Origins and development of accounting theory. Critical study of issues in contemporary accounting theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5113 Financial Accounting Research
Prerequisites: Admission to MS in accounting.
Description: Research and presentation of solutions for complex issues in contemporary accounting practice; using databases, SEC, FASB, AICPA, IASB, as well as other publicly available information.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5133 Oil and Gas Accounting
Prerequisites: Admission to MS in accounting.
Description: Financial accounting and reporting for oil and gas operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5143 Advanced Topics in Financial Reporting
Prerequisites: Admission to MS in Accounting Program
Description: Advanced theory and concepts underlying financial accounting and reporting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5153 Financial Statement Analysis
Prerequisites: Admission to MS in accounting.
Description: Study of the demand and supply of financial data, properties of numbers derived from financial statements, the role of financial information in investment decisions, and features of the decision-making environment. Previously offered as ACCT 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5183 MBA Financial Reporting
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Fundamentals of financial reporting, preparation and analysis of financial statements, and the role of financial accounting in decision making. Previously offered as ACCT 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5204 Financial Reporting I
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a "C" or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Theory and concepts underlying financial accounting and reporting. Foundational accounting data analytics skills. May not be used for degree credit if a student has credit in ACCT 3103, ACCT 3104, or the equivalent.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 5213 Financial Reporting II
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a "C" or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Theory and concepts underlying financial accounting and reporting. May not be used for degree credit with ACCT 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5223 Financial Reporting III
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a "C" or better in ACCT 5213 or equivalent
Description: Advanced accounting knowledge and skills required of early career accountants. Topics likely to include accounting for business combinations and consolidations, accounting for governmental and not-for-profit entities. May not be used for degree credit if a student has credit in ACCT 4133 or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5283 MBA Managerial Accounting
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Interpretation of accounting data in planning, controlling and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5333 Cost Accounting
Prerequisites: Admission to graduate program in the Spears School of Business AND ACCT 3004 OR ACCT 5183 or the equivalent
Description: Cost accounting knowledge and skills required of early career accountants. Topics covered likely to include cost accumulation systems, allocating product costs, planning and controlling costs, standard costing, and profitability analysis. Cannot be used for degree credit with ACCT 3203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5343 Accounting Information Systems and Data Analytics Tools
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and ACCT 3003 or ACCT 3004 or ACCT 5183;
Description: Accounting information systems knowledge and skills required of early career accountants. Topics likely to include accounting system design and installation, and related internal controls, as well as relevant data analytic tools. May not be used for degree credit if a student has credit in ACCT 3603, or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5353 Federal Income Taxation
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a "C" or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Federal income tax and its relationship to business decision-making; primary emphasis on recognition of the important tax consequences that attach to business transactions and the impact on decision-making. May not be used for degree credit if a student has credit in ACCT 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5363 External Auditing
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and ACCT 3103 or ACCT 3104 or ACCT 5204.
Description: External auditing theory, procedures, and practices required of early career accountants. May not be used for degree credit if a student has credit in ACCT 4503 or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5453 Ethics for Public Accountants
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Ethics concepts and applications required of early career accountants. Topics likely to include basic theories of ethics, including moral reasoning, moral values, relativity and objectivity, freedom and responsibility. Lecture and case approach for examination of issues such as independence, integrity, objectivity, client relationships, employee-employer relations, advertising, preferential treatment, core values and the corporation, and corporate governance, such as Sarbanes-Oxley Act, Foreign Corrupt Practices Act, and SEC regulations. Some states, including Texas, California, Colorado, and Virginia, requires the completion of an ethics course to be eligible to sit for the CPA Exam. May not be used for degree credit with ACCT 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5503 Advanced Auditing
Prerequisites: Admission to MS in accounting.
Description: Auditing theory, procedures and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5543 Fraud Examination
Prerequisites: Permission of SSB Graduate Programs office.
Description: Schemes used in the commission of white-collar fraud, as well as causes, symptoms and prevention methods related to these crimes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5563 Special Topics in Taxation
Prerequisites: Admission to the MS in Accounting Program and ACCT 5013.
Description: The study of specialized topics including state and local income tax, tax issues related to non-profit entities, tax compliance and planning, and international tax issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5603 Advanced Accounting-based Information Systems
Prerequisites: Admission to MS in accounting.
Description: Concepts underlying the design and use of an effective accounting information system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5623 Contemporary Issues in Taxation
Prerequisites: Admission to the MS in Accounting Program and ACCT 5013.
Description: Contemporary issues in taxation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5723 Expanding Accounting Horizons in the US
Prerequisites: Admission to MS in accounting.
Description: A visit to a region or regions within the United States. An integrated approach to the organizational, economic, political, historical, and technological issues impacting the firms, industries, and standard settlers visited. Effect on the accounting profession of the firms, industries, and standard settlers visited is also examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5763 International Accounting Abroad
Prerequisites: Admission to MS in accounting.
Description: A visit to a location or locations outside the United States. An integrated approach to the cultural, economic, political, historical, and technological effects of the region on international accounting. Comparison of the accounting issues of the region to that of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5783 MBA International Acct
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Diversity in financial reporting across countries and its effect on global capital flows. Corporate financial information across borders. Accounting in emerging markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5833 Graduate Internship in Accounting
Prerequisites: Admission to MS in accounting. Completion of either MSIS 5393 or department approved Excel program.
Description: Minimum 320-hour supervised internship in an accounting-related function. May be counted as elective hours only. May not be used for degree credit with ACCT 4933. Graded on a pass-fail basis. Supervised internship in public accounting, industry, or not-for-profit organizations. May be counted as elective hours only. Previously offered as ACCT 5900 and ACCT 5830. May not be used for degree credit with ACCT 4933. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5840 Special Topics and Individual Work in Accounting
Prerequisites: Admission to MS in accounting and consent of instructor.
Description: Individual work on special topics, projects or readings selected to acquaint students with significant accounting literature. Previously offered as ACCT 5110. Offered for variable credit, 1-10 credit hours, maximum of 10 credit hours.
Credit hours: 1-10
Contact hours: Lecture: 1-10 Contact: 1-10
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5880 MBA Special Topics in Accounting
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Individual work on special topics, projects or readings to acquaint students with accounting literature. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 5980 CPA Review
Prerequisites: Admission to MS in accounting program.
Description: Review of content and skills tested on the Certified Public Accountant exam. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4963, or ACCT 4970. Please see Program Coordinator for additional costs associated with the course and related materials. Previously offered as ACCT 5990 and ACCT 5994. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 6000 Doctoral Research and Thesis
Prerequisites: Approval of advisory committee.
Description: For students working on the doctoral degree. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 6110 Graduate Readings and Special Topics in Accounting
Prerequisites: Consent of supervising professor and coordinator of graduate programs in accounting.
Description: Supervised reading of significant literature and study of special topics not covered in regularly scheduled accounting courses. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 6703 Seminar in Accounting Research
Prerequisites: Doctoral student status and consent of coordinator of graduate programs in accounting.
Description: The theoretical literature and research methodology in accounting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 6803 Capital Markets Research in Accounting
Prerequisites: Consent of supervising professor and coordinator (or director) of the doctoral program in accounting.
Description: This course introduces empirical accounting research literature, particularly in the areas of capital markets, security valuation, and determinants of accounting choices made by managers. Students read and discuss several papers that examine a broad range of research questions and that use a variety of empirical research techniques. The course is designed to enable the student to understand and appreciate extant research, and help the student develop the skills necessary to conduct their own research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 6903 Analytical and Archival Research
Prerequisites: Consent of supervising professor and coordinator (or director) of the doctoral program in accounting.
Description: This course introduces analytical research literature in the areas of accounting, finance, and economics. Students read and discuss several papers that examine a broad range of research questions and that address those questions using analytical and archival research techniques. The course is designed to enable the student to understand and appreciate extant research, and help the student develop the skills necessary to conduct their own research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

Aerospace Studies - Air Force (AERO)

AERO 1111 United States Air Force Heritage and Values I
Description: "Heritage and Values," is a survey course designed to introduce students to the Department of the Air Force (DAF) and provides an overview of the basic characteristics, missions, communications and organization of the Air Force and Space Force. Enroll in this course to join Air Force/Space Force ROTC. Joining ROTC does not commit you to military service, but you will receive military training and a path to enter the Air Force or Space Force as a commissioned officer upon graduation. This is a great way to see if military service is right for you.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 1211 United States Air Force Heritage and Values II
Description: Continuation of the knowledge-level instruction of the employment of air and space power, from an institutional, doctrinal, and historical perspective. The students will be introduced to the Air Force way of life and gain knowledge on what it means to be an Airman.
Credit hours: 1
Contact hours: Lecture: 0 Lab: 1 Contact: 2
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 2111 Team and Leadership Fundamentals I
Description: "Team and Leadership Fundamentals" provides a fundamental understanding of both leadership and team building. The lessons and course flow are designed to prepare students for field training and leadership positions in the detachment.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 2211 Team and Leadership Fundamentals II
Description: This course builds on the fundamental understanding of both leadership and team building. Topics include listening, understanding themselves, being a good follower and problem solving efficiently. The students will apply these leadership perspectives when completing team building activities and discussing things like conflict management. Cadets will apply these lessons at Field Training, which follows the AS200 year.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3103 Leading People and Effective Communication I
Description: "Leading People and Effective Communication" utilizes student's field training experience to take a more in-depth look at leadership. Special emphasis is placed on enhancing communication skills, and why that is important as a leader. Students have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3203 Leading People and Effective Communication II
Description: "Leading People and Effective Communication" utilizes student's field training experience to take a more in-depth look at leadership. Special emphasis is placed on enhancing communication skills, and why that is important as a leader. Students have an opportunity to try out leadership and management techniques in a supervised environment as juniors and seniors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3504 Field Training Encampment Program
Prerequisites: Consent of professor of aerospace studies.
Description: Practical training on an Air Force base. Junior officer training, familiarization training in most functional aspects of a typical Air Force base. Includes career orientation, small arms firing, flight orientation rides, and survival training.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Aerospace Studies

AERO 4103 National Security, Leadership Responsibilities and Commissioning Preparation I
Description: "National Security and Preparation for Active-Duty" is designed for college seniors and provides them the foundation to understand their role as military officers and how they are directly tied to our National Security. It is an overview of the complex social and political issues facing the military profession and requires a measure of sophistication commensurate with the senior college level.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 4203 National Security, Leadership Responsibilities and Commissioning Preparation II
Description: Students are instructed on the responsibility, authority, and functions on an Air Force commander and selected provisions of the military justice system. The final semester of the AS400 course is designed to prepare cadets for life as a second lieutenant. "National Security and Preparation for Active-Duty" is designed for college seniors and provides them the foundation to understand their role as military officers and how they are directly tied to our National Security.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 4402 Summer Professional Development Training Program
Prerequisites: Consent of professor of aerospace studies.
Description: Students spend from two to three weeks on an Air Force base working in their intended specialty under supervision of experienced officer. Leadership and management principles applied to day-to-day experiences.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Aerospace Studies

African American Studies (AFAM)

AFAM 1113 Introduction to Africana Studies (DH)
Description: The course will examine the history and development of Africana Studies as an academic discipline and will provide a comprehensive overview of the field employing a broad interdisciplinary approach. A range of topics will be covered including history, art, literature, language, dance, music, religion, sociology, and geography throughout the African Diaspora, with a particular focus on the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AFAM 2223 Movements of the Black Diaspora (G)
Description: This course focuses on local, national, and international movements via investigation of the diversity of Black people throughout the diaspora, including the United States, the other countries of North and South America, Europe, Sub-Saharan Africa and Latin America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: International Dimension

AFAM 2423 Black Popular Culture (DH)
Description: The course examines forms of Black popular art and culture as well as the relationship of Black intellectual traditions, political movements, philosophical arguments, or social and historical contexts. Course may cover such forms as popular music, film, performance, comics, fashion, cyber culture, or television. Approaches may be thematic or historical and will include consideration of issues related to race, gender, class, sexuality, and power.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AFAM 2523 Black Political Thought (DH)
Description: Black Political Thought develops a set of critical tools to help explain the distinctiveness of Black Politics. It pursues a deep understanding of the Black intellectual traditions that inform an enhanced understanding of Political Theory's core concepts. Using the lens of the African diaspora it investigates the abiding concerns of Political Theory, i.e., the meanings of justice, freedom, and equality; the nature of power, obligation, and "the good life."
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AFAM 3343 Black Psychology (DS)
Prerequisites: PSYC 1113.
Description: Students will gain an understanding of the psychology of African Americans drawing upon African and American cultures and perspectives. The course will cover the foundations of African American psychology, African philosophy, Africentric psychology, intrapersonal and interpersonal topics such as family and community, peers and friends, racial identity, and select social issues among African Americans such as physical and mental health, education, racism, and employment. Same course as PSYC 3343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

AFAM 3753 African American Arts and Culture (DH)
Description: An exploration of the history, practice, and significance of African-American arts and culture. Topics might include black visual, literacy, filmic, musical, and street arts, artists, and movements. Approaches may be comparative or transnational. Same course as AMST 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AFAM 3950 Special Topics in Africana Studies
Description: Particular topics to illustrate the use of interdisciplinary methods in Africana Studies. Topics might include: social issues, art and culture, popular culture, class, transnational or comparative approaches, gender, economics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AFAM 4453 Black Geographies & Memorialization in the Landscape (DH)
Prerequisites: Junior or senior standing or consent of instructor.
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. Same as AMST 4453 and GEOG 4453. May not be used for degree credit with GEOG 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AFAM 4543 Race Theory
Prerequisites: 3 hours upper-division AFAM or permission of instructor.
Description: In-depth study of theories of race and racism from an interdisciplinary Africana Studies perspective, utilizing Africana Studies methodologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AFAM 4980 Research in Africana Studies
Prerequisites: 1 upper-level course eligible for African Studies minor.
Description: For students interested in pursuing either a research or a directed reading project. Project will be student-initiated and student-designed with faculty mentor input and guidance. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

AFAM 5990 Directed Inquiry in Africana Studies
Prerequisites: Permission of instructor.
Description: Specialized readings or independent study in Africana Studies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

Ag International (AGIN)

AGIN 5000 Master's Thesis/Report in International Agriculture
Description: For students working on a masters degree in International Agriculture. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5102 International Agriculture Creative Component
Prerequisites: Graduate standing or consent of instructor.
Description: Development of independent project to improve or inform an international agriculture practice based on scholarship.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5113 Global Agricultural Development Communications
Prerequisites: Graduate Standing.
Description: Role of Information Communication Technologies in global agricultural development and the storytelling process as a communication tool for global agricultural development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5213 Global Agricultural Entrepreneurship
Prerequisites: Graduate Standing.
Description: Use of entrepreneurship principles to develop solutions to emerging and/or existing problems and challenges in global agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5312 Applied Issues in International Agriculture and Natural Resources
Prerequisites: Graduate standing or consent of instructor.
Description: Applied global issues in international agriculture and natural resource development, including sustainability, food security, trade, project evaluation, and international agricultural institutions. Written and oral reports and discussion of selected topics. Previously offered as AG 5010.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5313 Global Food Security and Sustainability
Prerequisites: Graduate Standing.
Description: Broad overview of the complexity of global food systems including key challenges to security and sustainability of agricultural production now and in the future.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5333 Guided Reading in International Agriculture and Natural Resources
Prerequisites: Graduate standing or consent of Instructor.
Description: Understanding of international agricultural development objectives, challenges, and solutions to the most critical problems facing the developing world's food and agricultural systems, through readings of a set of classic and contemporary books and constructing book reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5353 Advanced Case Studies in Agricultural Marketing and International Development
Prerequisites: Consent of Instructor.
Description: Advanced real world issues in marketing and international development of agricultural and food products. Development of an understanding of issues facing policy makers, producers, consumers, and other groups in examining the costs and benefits of various international marketing, trade and development programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5413 Overview of Global Development
Prerequisites: Graduate Standing.
Description: Examines effective principles and practices of International development and provides a thorough understanding of current issues in development by guiding students to an understanding of how development issues are being approached, what methodologies are effective, and how to use the tools of development. Same course as GS 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5713 Participatory Tools and Processes for Community Engagement
Prerequisites: Graduate standing in AGIN or consent of instructor.
Description: Cultivates skills in the practical application of participatory tools and processes to interact more effectively with local communities. Provides facility in standard facilitation techniques alongside systems thinking tools to develop skills in managing group dynamics, encouraging team building, and helping groups come to consensus and sustainable decisions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

AGIN 5723 Participatory Systems Modeling
Prerequisites: AGIN 5713 or consent of instructor.
Description: Develops facility in the application and use of system dynamics models based on the interaction and engagement with stakeholder groups. Teaches system dynamics techniques and relevant software and applies these to various international agriculture problems. Exposes students to the theory and practice of using group model building techniques with stakeholders to enhance decision making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5800 International Agriculture Internship Experience
Prerequisites: Graduate standing or consent of instructor.
Description: Students conducting an international internship experience, under the direction and supervision of a faculty member. Previously offered as AG 5100. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5801 International Agricultural Experience Proposal
Prerequisites: Consent of instructor.
Description: Students planning and preparing an international internship experience, under the direction and supervision of a faculty member.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5990 Advanced Studies in International Agriculture and Natural Resources
Prerequisites: Consent of Instructor.
Description: Individual or small group study and/or research in international agriculture and natural resources. Offered for variable credit, 1-12 credit hours, maximum of 15 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

Agricultural Communications (AGCM)

AGCM 2113 Introduction to Agricultural Communications
Prerequisites: ENGL 1213 or 1413. Major in AGCM or consent of instructor.
Description: Fundamentals of agricultural news writing and other communication methods. Careers in and the role of the media in agriculture and related fields. Previously offered as AGCM 2103 and AGCM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 3100 Special Topics in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Investigation of specialized and/or advanced topics and issues related to agricultural communications. Previously offered as AGCM 3101. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 3103 Written Communications in Agricultural Sciences and Natural Resources
Prerequisites: ENGL 1213; College of Agricultural Sciences and Natural Resources student.
Description: Understanding and application of writing principles and communications theory as related to public issues in agriculture, food and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 3113 Writing and Editing for Agricultural Publications
Prerequisites: AGCM 2113 with a grade of "C" or better; major in agricultural communications.
Description: Interviewing, reporting, writing, and editing for agricultural publications.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3123 Audio and Video Storytelling in Agricultural Communications
Prerequisites: Grade of "C" or better in AGCM 2113; Grade of "C" or better in AGCM 3233 or AGCM 4233, or concurrent enrollment in AGCM 3233.
Description: Exploration and application of audio and video media storytelling techniques for agricultural communicators as used in promoting, marketing and communicating about agriculture, food, natural resources and the environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3203 Oral Communications in Agricultural Sciences & Natural Resources (S)
Prerequisites: Student in the College of Agricultural Sciences and Natural Resources.
Description: Application of oral communications skills used in the dissemination of information related to agricultural sciences and natural resources, and related topics. Acquisition of interpersonal communications skills and small group, impromptu and professional presentation skills.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Society & Human Behavior

AGCM 3213 Layout and Design for Agricultural Publications
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Fundamentals of layout and design as applied to agricultural publications. Practical application of design principles, typography, design software and printing practices.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3223 Digital and Online Media in Agricultural Communications
Prerequisites: AGCM 2113 and AGCM 3213 with a "C" or better; major in agricultural communications.
Description: Fundamentals of using digital and online media and mass communication for agriculture and natural resources, including web, social media and email marketing. Practical application of theory and skills related to design, management and evaluation of digital and online media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3233 Basic Photography and Photo Editing for Agriculture
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Beginning course focusing on photographic equipment, related software and photo composition in an agricultural setting.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 2 Contact: 5 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lab, Lecture, Lecture Lab Indep Study
Department/School: Ag Ed, Comm & Leadership

AGCM 3503 Issues Management and Crisis Communications in Agriculture and Natural Resources
Prerequisites: Junior or senior standing; Major in CASNR.
Description: Theoretical perspectives and practical applications of issues management, crisis management, and crisis communications principles. Development of knowledge, skills, and abilities necessary for identifying and managing issues faced by organizations; leading organizations through crises; and communicating before, during and after crisis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4113 Features Writing and Editing for Agricultural Publications
Prerequisites: AGCM 3113 with a grade of "C" or better; major in agricultural communications or consent of instructor.
Description: Brainstorming, researching, interviewing, developing, writing and editing feature stories for agricultural publications. May not be used for degree credit with AGCM 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4203 Professional Development in Agricultural Communications
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Professional preparation and personal development for careers in agricultural communications, including business communications writing, resume and portfolio development, presentation delivery, financial planning and management, networking, and job interview skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4233 Agricultural Photography Tour
Description: Agricultural photography travel course focused on advanced composition techniques including but not limited to night photography, portraits, painting, etc. Students will be exposed to many cultural and agricultural sites from a photographic perspective. No credit for students with credit in AGCM 5233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4300 Internships in Agricultural Communications
Prerequisites: Consent of internship coordinator and adviser.
Description: Supervised work experience with approved employers in agricultural communications. Presentation required following the internship experience. Previously offered as AGCM 4500. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 4403 Planning Campaigns for Agriculture and Natural Resources
Prerequisites: AGCM 3113, AGCM 3213 and AGCM 3223 with a "C" or better; major in agricultural communications.
Description: Communications campaign development for agriculture and natural resources activities and issues, including development of materials, budgets and contracts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4413 Agricultural Communications Capstone
Prerequisites: AGCM 3213 and AGCM 3233 or AGCM 4233, and AGCM 4113 with a "C" or better; senior or graduate standing in agricultural communications.
Description: The development of an agricultural magazine through advanced feature writing and editing, page layout, graphic design, photography, and sponsor communications as well as an understanding of the printing process. May not be used for degree credit with AGCM 4413.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4990 Problems in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Small group and individual study and research in problems relating to communications within the agricultural sector and from the agricultural sector to other constituencies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5000 Research and Thesis
Prerequisites: Graduate standing.
Description: Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5100 Special Topics in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Investigation of specialized and/or advanced topics and issues related to agricultural communications. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5103 History and Philosophical Foundations of Agricultural Communications
Prerequisites: Graduate standing.
Description: Discussion of the history, philosophical foundations and current issues regarding agricultural communications and the land-grant system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5113 Features Writing and Editing for Agricultural Publications
Prerequisites: AGCM 3113 with a grade of "C" or better; major in agricultural communications or consent of instructor.
Description: Brainstorming, researching, interviewing, developing, writing and editing feature stories for agricultural publications. May not be used for degree credit with AGCM 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5123 Advanced Audio and Video Storytelling in Agricultural Communications
Description: Application of audio and video storytelling concepts to communicating about issues in agriculture, food, natural resources, and the environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5132 Writing for Scholarly Publications in Agricultural Sciences and Natural Resources
Description: Development of scientific writing skills for agricultural sciences and natural resources disciplines, including research proposals, theses, dissertations, conference papers, and journal articles.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5133 Agricultural Photography and Photo Editing
Description: Photographic history, theory and research along with practical knowledge in equipment, software, composition, and the photographic light triangle. May not be used for degree credit with AGCM 3233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 2 Contact: 5 Other: 2
Levels: Graduate
Schedule types: Independent Study, Lab, Lecture, Lecture Lab Indep Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5203 Theory and Practice in Agricultural Communications
Prerequisites: Graduate standing.
Description: The study of major communication theories and theorists in the context of agricultural communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5213 Advanced Concepts in Agricultural Publishing
Prerequisites: Graduate standing.
Description: Analysis, redesign and creation of agricultural publications. Evaluation of audience, production, advertising and editorial content.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5223 Digital and Online Media in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Fundamentals of using digital and online media and mass communication for agriculture and natural resources, including web, social media and email marketing. Practical application of theory and skills related to design, management and evaluation of digital and online media. May not be used for degree credit with AGCM 3223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5233 Agricultural Photography Tour
Description: Agricultural photography travel course focused on advanced composition techniques including but not limited to night photography, portraits, painting, etc. Students will be exposed to many cultural and agricultural sites from a photographic perspective. No credit for students with credit in AGCM 4233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5303 Communicating Ethical Issues in Agriculture
Prerequisites: Graduate standing.
Description: An introduction to communicating ethical theories in the context of agriculture. Ethical theory and current research are used to critique contemporary issues in agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5403 Public Relations Campaigns in Agricultural Sciences and Natural Resources
Prerequisites: AGCM 5213.
Description: Public relations campaign development for agriculture and natural resources organizations and issues, including public relations theory, strategic planning and campaign material development. No credit for students with credit in AGCM 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5413 Agricultural Communications Capstone
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5503 Risk and Crisis Communication in Agricultural Sciences and Natural Resources
Description: Development of risk and crisis communication skills and knowledge with special emphasis in agricultural sciences and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5990 Advanced Studies in Agricultural Communications
Prerequisites: Consent of supervising professor.
Description: Individual and small group study or research in agricultural communications topics and issues. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

Agricultural Economics (AGEC)

AGEC 1101 Agricultural Economics and Agribusiness Experience
Description: Developing connections between the student's major curriculum, career goals specific to agricultural economics or agribusiness, and networking with other students, faculty and alumni.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 1113 Introduction to Agricultural Economics (S)
Description: Economic theory of production, marketing, and consumption of agricultural products and natural resources. The role and structure of agricultural sciences and natural resources within the American economy. Policies to achieve efficiency and welfare goals in agriculture. No general education credit for students also taking ECON 1113 or ECON 2103. Previously offered as AGEC 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Society & Human Behavior

AGEC 2303 Food Marketing to a Diverse Population (D)
Description: Food and beverage demand and preferences of socially and ethnically constructed groups in American Society. Real life issues of marketing to a diverse population, including Native, Asian, African and Hispanic Americans, and low-income populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Diversity

AGEC 2313 Case Studies in Agricultural Trade and Development
Prerequisites: A course in economics or marketing.
Description: Real world issues in international trade and development of agricultural and food products. Development of an understanding of issues facing policymakers, producers, consumers, and other groups in examining the costs and benefits of various trade and development programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for 1-3 credit hours, max of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Honors Credit

AGEC 2990 Problems in Agricultural Economics and Agribusiness
Description: Directed study on topics related to agricultural economics or agribusiness. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 3010 Internship in Agricultural Economics
Prerequisites: Approval of internship committee and advisor.
Description: Supervised work experience with approved public and private employers in agricultural economics, including banks, farm credit services, agriculture chemical firms, Soil Conservation Service, congressional offices and other opportunities. Credit will not substitute for required courses. Graded on a pass-fail basis. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 3023 Farm to Fork
Description: Survey of agriculture and natural resources and their relationships to society. Role of advanced scientific technologies in alternative systems of food production and distribution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3101 Professional Career Development
Prerequisites: Major in Agricultural Economics or Agribusiness or consent of instructor.
Description: Overview of the various areas of specialization within agricultural economics and agribusiness and their associated career opportunities and obligations. Development and improvement of written communication, oral communication and leadership skills. Previously offered as AGEC 4902.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3183 Agribusiness Accounting and Taxation
Prerequisites: 60 semester credit hours, including ENGL 1113 and MATH 1513 or equivalent.
Description: Development of the ability to read, analyze, and use accounting information to improve decision-making and tax planning. Same course as ACCT 3183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3213 Quantitative Methods in Agricultural Economics
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (MATH 1483 or MATH 1513 or MATH 2103 or MATH 2144, each with a grade of "C" or better; or Math placement score required for MATH 2103 (see placement.okstate.edu)).
Description: Indices, graphics, budgeting, interest calculations, compounding and discounting, basic statistic measures, regression, optimization and computer applications.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 3323 Agricultural Product Marketing and Sales
Prerequisites: 40 semester credit hours, including (AGEC 1113 or ECON 2003 or ECON 2103) and ENGL 1113.
Description: Fundamentals of agricultural marketing management and planning applied to specific agricultural product (input and output) marketing problems. Institutional differences between agricultural and non-agricultural marketing environments. The role of the individual sales representative in a marketing and sales organization. Written and oral presentations of marketing and sales information required of all students. Previously offered as AGEC 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3333 Agricultural Marketing and Price Analysis
Prerequisites: AGEC 3213 with a minimum grade of C.
Description: Supply, demand, and price determination within the institutional environment of agricultural commodity markets. Roles provided by government intervention, marketing agreements, and cooperatives in agricultural markets. Includes graphical, mathematical, and statistical analysis of commodity markets. Fundamentals of futures markets applied to agriculture. Previously offered as AGEC 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3403 Agricultural Small Business Management
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ACCT 2003 or ACCT 2103 or ACCT 3183 or AGEC 3183).
Description: The essentials of operating an agricultural small business. An introduction to the planning, organizing, marketing, managing, financing, controlling and operating an agricultural small business. Not recommended for agricultural economics or agribusiness majors. No credit for students with prior credit in 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3423 Farm and Agribusiness Management
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ACCT 2003 or ACCT 2103 or ACCT 3183 or AGEC 3183).
Description: Fundamentals of managerial functions as applied to agricultural firms. Organization and management of human, financial, and physical assets for the profitable operation of an agricultural business. An introduction to business planning, enterprise budgeting, financial statements and record keeping. Previously offered as AGEC 3413.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 3463 Agricultural Cooperatives
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: An evaluation of the fundamental principles, objectives, structure, finance, and management associated with the cooperative organization. An analysis of the cooperative business organization within the modern economy: history, legislation and evolution. An examination of careers related to cooperatives. Previously offered as AGEC 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3503 Natural Resource Economics
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: Framework for analyzing natural resource management decisions. Applications of microeconomic theory to the management of soil, water, and other resources, with special emphasis on the institutions having an impact on management opportunities. Supply of and demand for natural resources, resource allocation over time, rights of ownership, public issues of taxation, police power and eminent domain.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3603 Agricultural Finance
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3423) and (ACCT 2203 or ACCT 2003).
Description: Analyze farm and agribusiness financial statements. Understand the relationship between firm growth and financial leverage. Time value of money concepts and their application to capital budgeting. Discuss how agricultural lenders acquire and use funds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3703 Issues in Agricultural Policy
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: Emerging issues related to agricultural policy in the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3713 Agricultural Law
Prerequisites: 40 semester credit hours, including AGEC 1113 or ECON 2003 or ECON 2103.
Description: Survey of law with emphasis on agricultural problems, applications, and strategies for managing legal risk in the agribusiness setting. Contract law, tort law, property law, real estate transactions, business organization, estate planning, debtor/creditor law, environmental law and water/resources law. Previously offered as AGEC 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3723 Environmental Law for Agriculture and Natural Resources
Description: Analysis of U.S. environmental laws and regulations with application to agricultural production and natural resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3803 International Agricultural Economics Tour (G)
Prerequisites: Consent of instructor.
Description: A two-three week international travel component. An integrated approach to the cultural, agricultural, historical, technological, political, economic, and religious backgrounds of the region. Comparison of the agricultural business environment of the region to that of the U.S. Previously offered as AGEC 4803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: International Dimension

AGEC 3810 Domestic Agricultural Economics Tour
Prerequisites: Consent of instructor.
Description: An integrated approach to the cultural, agricultural, historical, technological, political and economic backgrounds of an agricultural region of the United States. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered 1-3 credit hours, max of 9 hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Honors Credit

AGEC 3990 Special Problems in Agricultural Economics
Description: Directed study of selected agricultural economics topics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 4101 Agricultural Economics Seminar
Prerequisites: Senior standing and agricultural economics or agribusiness major status.
Description: Contemporary problems in agricultural economics. Previously offered as AGEC 4911.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4213 Advanced Quantitative Methods in Agricultural Economics
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Quantitative analysis of agricultural production and markets including risk and uncertainty. Introduction to simulation. Development of statistical and software skills. Written presentation of an analysis of data. Previously offered as AGEC 3203. May not be used for Degree Credit with AGEC 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4223 Quantitative Supply Chain Management in Agribusiness
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Challenge in food supply chain management. Tools to solve logistics problems including traveling salesperson, vehicle routing, and distribution center problems. Forecasting sales and queuing theory. Introduction to specialized software used in supply chain management. May not be used for Degree Credit with AGEC 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4243 Researching Consumer Food Preferences
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ANSI 1124 or FDSC 1133) and (STAT 2013 or STAT 2023 or STAT 4013).
Description: Design, implementation, and interpretation of research in consumer food preferences. Includes design of consumer surveys, conducting consumer interviews, preparing food and questionnaires for taste-test experiments, targeting and recruiting scientifically valid samples, the statistical analysis of data, and communication of results. Previously offered as FDSC 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4333 Commodity Futures Markets
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3333).
Description: The economics of commodity futures markets. The vocabulary of futures markets and the mechanics of trading and hedging. Basis and producer marketing strategies. Fundamental analysis and statistical analysis of data. Technical analysis, behavioral finance, efficient market hypothesis and basics of option pricing. May not be used for degree credit with AGEC 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4343 International Agricultural Markets and Trade (G)
Prerequisites: ECON 3023 OR ECON 3113.
Description: Contemporary international agricultural trade theory and applications. Tools to identify, evaluate critically, and seek solutions to complex international trade and development problems, such as gains from trade, comparative advantage, impacts of trade barriers on social welfare, export promotion effectiveness, trade impacts on environment and land degradation, free trade areas and impacts of genetically modified crops on trade.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: International Dimension

AGEC 4403 Advanced Farm and Ranch Management
Prerequisites: AGEC 3423 with a minimum grade of C, and AGEC 3603 with a minimum grade of C or concurrent enrollment.
Description: The development of problem solving and risk management skills needed on the modern farm or ranch. Use of spreadsheets to perform production planning and analysis of farm and ranch problems with linear programming, simulations, and other tools. Analysis of the acquisition of resources and the use of information systems in managing the individual farm or ranch business. May not be used for Degree Credit with AGEC 5043.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 4423 Advanced Agribusiness Management
Prerequisites: AGEC 3333 and (AGEC 3603 or concurrent).
Description: Application of modern decision theory in the uncertain environment that the agricultural business operates. Planning, organizing, implementing, coordinating, and controlling problems associated with establishing an agricultural business, achieving firm growth and operating the firm through time. Use of spreadsheets to perform production planning and analysis related to agricultural business operation with linear programming, simulations, and other tools. Analysis of the interaction of resources, prices and production alternatives. Previously offered as AGEC 4323. May not be used for Degree Credit with AGEC 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4503 Environmental Economics and Resource Development
Prerequisites: AGEC 3503 or ECON 3023 or ECON 3113 or consent of instructor.
Description: Economic, social, and political factors relating to conservation, natural resource development, and environmental quality. Valuation of priced and non-priced natural and environmental resources. Analysis of environmental and natural resource policy and the role of public and private agencies in conservation and development. May not be used for Degree Credit with AGEC 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4513 Farm Appraisal
Prerequisites: AGEC 3423.
Description: Estimating the market value of agricultural real estate using the three approaches to value - sales comparison, cost and income approaches. Analysis of sales to value the different characteristics of the farm. May not be used for Degree Credit with AGEC 5513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 4613 Advanced Agricultural Finance
Prerequisites: (AGEC 3603 or FIN 3113 with a grade of "B" or better), (ECON 3023 or ECON 3113), and (STAT 2013 or STAT 2023 or STAT 2053 or STAT 4013 or STAT 4053).
Description: Advanced time value of money and financial management concepts as applied to the management of agricultural firms. Incorporating risk into agricultural investment and financial management decisions. Introduction to risk modeling. May not be used for degree credit with AGEC 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4703 American Agricultural Policy
Prerequisites: ("C" or better in AGEC 3333), (MATH 2103 or MATH 2123 or MATH 2144), and (ECON 3023 or ECON 3113 or concurrent).
Description: Economic characteristics and problems of agriculture; evolution and significance of programs and policies. May not be used for Degree Credit with AGEC 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4723 Rural Economics Development
Prerequisites: AGEC 3213.
Description: Concepts, theories, and applications of regional and community economics, including the theories of economic development, analytic techniques, infrastructure and community services, targeted development and associated policies. Focus on domestic rural areas. May not be used for Degree Credit with AGEC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4990 Problems of Agricultural Economics
Prerequisites: Consent of instructor.
Description: Research on special problems in agricultural economics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5000 Master's Thesis/Report
Description: For students working on an MS degree in agricultural economics. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5010 Professional Experience in Agricultural Economics or Agribusiness
Prerequisites: Approval of internship committee and advisor.
Description: Supervised professional experience with approved public and private employers in agricultural economics or agribusiness. Designed for Master of Agriculture program. Graded on pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5013 Advanced Quantitative Methods in Agricultural Economics
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Quantitative analysis of agricultural production and markets including risk and uncertainty. Introduction to simulation. Development of statistical and software skills. Written presentation of an analysis of data. May not be used for degree credit with AGEC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5023 Quantitative Supply Chain Management in Agribusiness
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Challenge in food supply chain management. Tools to solve logistics problems including traveling salesperson, vehicle routing, and distribution center problems. Forecasting sales and queuing theory. Introduction to specialized software used in supply chain management. May not be used for degree credit with AGEC 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5033 Commodity Futures Markets
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3333).
Description: The economics of commodity futures markets. The vocabulary of futures markets and the mechanics of trading and hedging. Basis and producer marketing strategies. Fundamental analysis and statistical analysis of data. Technical analysis, behavioral finance, efficient market hypothesis and basics of option pricing. May not be used for degree credit with AGEC 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5043 Advanced Farm and Ranch Management
Prerequisites: ("C" or better in AGEC 3423) and (AGEC 3603 or concurrent).
Description: The development of problem solving and risk management skills needed on the modern farm or ranch. Use of spreadsheets to perform production planning and analysis of farm and ranch problems with linear programming, simulations, and other tools. Analysis of the acquisition of resources and the use of information systems in managing the individual farm or ranch business. May not be used for Degree Credit with AGEC 4403.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 5053 Environmental Economics and Resource Development
Prerequisites: AGEC 3503 or ECON 3023 or ECON 3113 or consent of instructor.
Description: Economic, social, and political factors relating to conservation, natural resource development, and environmental quality. Valuation of priced and non-priced natural and environmental resources. Analysis of environmental and natural resource policy and the role of public and private agencies in conservation and development. May not be used for degree credit with AGEC 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5073 Rural Economics Development
Prerequisites: AGEC 3213.
Description: Concepts, theories, and applications of regional and community economics, including the theories of economic development, analytic techniques, infrastructure and community services, targeted development and associated policies. Focus on domestic rural areas. May not be used for degree credit with AGEC 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5101 Research Methodology
Prerequisites: Selection of a thesis advisor and a thesis topic.
Description: Using the scientific method to solve problems related to agriculture. Preparation of a thesis proposal required.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5103 Mathematical Economics
Prerequisites: MATH 2103 or MATH 2123 or MATH 2144, and ECON 3113.
Description: Mathematical tools necessary for formulation and application of economic theory and economic models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5113 Applications of Mathematical Programming
Prerequisites: AGEC 5103 or AGEC 5403.
Description: The application of concepts and principles of existing linear and nonlinear programming techniques to agricultural problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5203 Advanced Agricultural Prices
Prerequisites: AGEC 5103, STAT 4043.
Description: Demand and price structures, price discovery, time series and agricultural price research methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5213 Econometric Methods
Prerequisites: AGEC 5103 and ECON 4213 or STAT 4043.
Description: Application of econometric techniques to agricultural economic problems, theory and estimation of structural economic parameters.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5233 Primary Data Analysis in Economic Research
Prerequisites: AGEC 5213 or concurrent enrollment.
Description: Sampling theory and model-based hypothesis testing for the analysis and reporting of economic models of observational or experimental data. Introduction of classes of general linear models, including qualitative and limited dependent variable models, commonly used to analyze economic problems. Differences and commonalities between frequentist and Bayesian estimation methods and interpretation. Examples pertain to food and fiber markets and production agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5303 Agricultural Market Policy and Organization
Prerequisites: ECON 3112, MATH 2103 or MATH 2144, and STAT 2023 or equivalent.
Description: Role of markets in the food system; Price variation across space, time, and form; Structure, conduct and performance of agricultural industries; Interregional trade theory; and government policies that influence decisions. Previously offered as AGEC 5311.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5321 Agricultural Marketing and Economic Development
Prerequisites: AGEC 5311.
Description: Role of marketing in economic development, focusing on international economics; role of institutions in a market economy.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5331 Agricultural Marketing: Advanced Concepts
Prerequisites: AGEC 5311.
Description: Advanced topics in price variation across space, time, and form. Market and firm efficiency. Market structure, conduct and performance; role of information in a market economy; and other selected topics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5343 International Agricultural Markets and Trade
Description: Contemporary international agricultural trade theory and applications. Broaden students' understanding of contemporary cultural and economic issues outside the U.S. that affect global demand. Gains from trade and the theory of comparative advantage. No credit for students with credit in AGEC 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5403 Production Economics
Prerequisites: AGEC 5103.
Description: Analysis of micro-static production economics problems; factor-product, factor-factor and product-product relationships; functional forms for technical unit and aggregate production functions; maximizing and minimizing choice rules; firm cost structure; scale relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5423 Agribusiness Management
Prerequisites: AGEC 3333 and (AGEC 3603 or concurrent).
Description: Application of quantitative analysis to the evaluation of business plans for agribusiness firms. Preparation of business plans, including mission statements, financial analyses, marketing plans, personnel and organization requirements of the firm, production and operations plans as well as a contingency plan. Analysis of risk factors associated with agriculturally-based companies. No credit for students with credit in AGEC 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5463 Advanced Agricultural Cooperatives
Prerequisites: AGEC 3463 or consent of instructor.
Description: Advanced understanding of cooperative business model and management skills. Advanced cooperative finance including profit center analysis, equity management, working capital management, budgeting and capital budgeting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5483 Bio-Energy Feasibility and Commercialization
Prerequisites: AGEC 1113 or ECON 2103.
Description: Feasibility and commercialization of bio-fuel and bio-based projects. Issues and processes in transitioning a project from pilot scale into commercialization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5503 Economics of Natural and Environmental Resource Policy
Prerequisites: AGEC 4503, ECON 3113, or ECON 3023; and MATH 2103.
Description: Economics of long-term resource use with particular emphasis on agricultural and environmental problems. Methods for estimation of nonmarket prices. Cost benefits analysis of long-term natural resource use and environmental policy. Elementary computer simulation of long-term resource use and environmental policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5513 Farm Appraisal
Prerequisites: AGEC 3423.
Description: Estimating the market value of agricultural real estate using the three approaches to value - sales comparison, cost and income approaches. Analysis of sales to value the different characteristics of the farm. May not be used for degree credit with AGEC 4513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 5603 Advanced Agricultural Finance
Prerequisites: AGEC 3603 or FIN 3113, ECON 3023 or ECON 3113 and STAT 2023 or equivalent.
Description: Advanced investment and financial management concepts applied firms that operate in the agricultural sector. Incorporating uncertainty and risk into financial modeling and decision making via stochastic simulation and other tools. Risk/return tradeoff for stocks, portfolio management and business investments. May not be used for degree credit with AGEC 4613. Same course as AGEC 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5703 American Agricultural Policy
Prerequisites: ("C" or better in AGEC 3333), (MATH 2103 or MATH 2123 or MATH 2144), and (ECON 3023 or ECON 3113 or concurrent).
Description: Economic characteristics and problems of agriculture; evolution and significance of programs and policies. May not be used for degree credit with AGEC 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5713 Rural Regional Analysis
Prerequisites: AGEC 5103.
Description: Concepts of market and nonmarket based rural welfare; theories of regional growth as applied to rural areas; methods of regional analysis including computable general equilibrium; analysis of policies and programs for improving welfare of rural population groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5723 Plan & Pol Devlpmnt
Prerequisites: Master's-level microeconomics, macroeconomics and regression analysis.
Description: Economics of market-based planning and policy analysis for developing countries, topics and tools in macro- and microeconomics of development, and social cost-benefit and project analysis with emphasis on agricultural and public policy. Hands-on application of econometrics, input-output analysis and cost-benefit analysis using econometric software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5733 Food Import Demand and Trade Policy
Description: Global welfare analysis of national food and agricultural trade and development policies of developed and developing countries. Analysis of import demand systems using real world data and incorporating economic and demographic variables.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5783 Bio-Energy Economics and Sustainability
Prerequisites: AGEC 1113 or ECON 2103.
Description: Economic issues related to supply chains producing bio-energy and bio-based products. Economic, sustainability and social dimensions of these industries. Triple bottom line objectives, life cycle analysis and the principles of feasibility analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5990 Advanced Studies
Prerequisites: Consent of instructor.
Description: Investigation in designated areas of agricultural economics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6000 Doctoral Dissertation
Description: Open to students pursuing graduate study in agricultural economics beyond the requirements for a master's degree. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-15 credit hours, maximum of 24 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6102 Teaching Practicum in Agricultural Economics
Prerequisites: Two semesters of graduate study in agricultural economics.
Description: Philosophies of resident and nonresident teaching, general tasks performed, review, evaluation and lecture organization, preparation and presentation.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6103 Advanced Applications of Mathematical Programming
Prerequisites: AGEC 5103, AGEC 5113.
Description: General presentation of nonlinear optimization theory and methods followed by applications of nonlinear programming. Use of GAMS/MINOS optimization software package.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6213 Advanced Econometrics
Prerequisites: AGEC 5213 or ECON 5243; STAT 4203 and AGEC 4213 recommended.
Description: Using advanced econometric techniques in applied research. Linear and nonlinear hypothesis testing; non-nested hypothesis tests; Monte Carlo hypothesis testing; stochastic simulation; misspecification testing. Extensive use of SAS statistical software package.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6222 Spatial Econometrics
Description: Develop concept of spatial dependence. Introduce tools and techniques used to explore spatial dependence including spatial statistics and regression. Use of geographic information system (GIS) software in spatial analysis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6300 Agricultural Marketing Seminar
Prerequisites: Consent of instructor.
Description: Current developments in theory, techniques for evaluating marketing behavior, market legislation and market development. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6303 Advanced Agricultural Marketing
Prerequisites: AGEC 5303.
Description: Marketing theory, market structure and performance, governmental regulation and policy and bargaining in agricultural markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6400 Seminar in Farm Management and Production Economics
Prerequisites: AGEC 5403 or consent of instructor.
Description: Scientific research methodology applied to problems of resource efficiency. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6403 Advanced Production Economics
Prerequisites: AGEC 5403.
Description: Formulating and solving applied economic optimization problems in agricultural production economics. Expected profit maximization; analyzing data from agronomic experiments; credit scoring; risk models such as stochastic dominance and expected utility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6700 Agricultural Policy and Rural Resource Development Seminar
Description: Frontier issues in agricultural policy, natural resources and rural development. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

Agricultural Education (AGED)

AGED 2011 Topics and Issues in Agricultural Education
Description: An exploration into the world of teaching secondary agricultural education with a focus on the role and purpose of the comprehensive agricultural education program. Observation of teachers in an experiential manner by actively interviewing agricultural education teachers, school principals, and appropriate state staff; assisting with FFA activities; and observing students' SAE opportunities.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3101 Laboratory and Clinical Experiences in Agricultural Education
Description: Preprofessional clinical experiences in agricultural education teaching and related careers. Requirement for admission to professional education, student teaching, and internships. Previously offered as AGED 3510.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3103 Foundations and Philosophies of Teaching Agricultural Education
Prerequisites: 21 semester credit hours of agriculture with a 2.50 GPA.
Description: Roles and responsibilities of the agricultural education teacher; types of program offerings; steps of the teaching-learning process; place of agricultural education in relation to other educational programs in school systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 3201 Planning and Conducting Agricultural Youth Organization Events
Description: A service-learning course focused on the processes and procedures required to host competitive events for agricultural youth organizations. Emphasis on roles of event hosts such as planning, coordination, volunteer management, and facilitation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3203 Advising Agricultural Student Organizations and Supervising Experiential Learning
Prerequisites: AGED 3103.
Description: Determining resources and trends of local communities with respect to agricultural production and agribusiness. Emphasis on agricultural education program policies, FFA chapter advisement, planning and managing the instructional program, identification and completion of records and reports required of a teacher of agricultural education in Oklahoma. May not be used for degree credit with AGED 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4103 Methods of Teaching Agricultural Education
Prerequisites: AGED 3101 and AGED 3203.
Description: Facets of the teaching and learning process including teaching methods, basic teaching skills, proper classroom management techniques, and motivational techniques and ideas. Preparation for student teaching.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4113 Inquiry Based Instruction in Agricultural Education
Prerequisites: AGED 3103
Description: Inquiry-based instruction in agricultural education to prepare future school-based agricultural education teachers to teach inquiry-based science, technology, engineering, and math (STEM) curriculum.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4200 Student Teaching in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202; Concurrent enrollment in AGED 4113; full admission to the University Professional Education program.
Description: Full-time directed experience in an approved agricultural education department. Applications of methods and skills in agricultural education as related to selecting, adapting, utilizing, and evaluating curriculum materials and experiences to meet educational goals and facilitate learning for individual students. Roles, responsibilities, and organization and operation of school systems. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 4203 Professional Development in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202.
Description: Professional preparation and development for careers as agricultural educators. Professional correspondences, interviewing, networking, and other employability skills. Reflection and evaluation of instruction, project supervision and advising of youth leadership development organizations. May not be used for degree credit with AGED 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 4300 Agricultural Education Internship
Prerequisites: Consent of instructor.
Description: Supervised internship experience with approved enterprises in agriculture, natural resources, and/or youth development. Regular written reports and final presentation required. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 4713 International Programs in Agricultural Education and Extension (G)
Description: World hunger and its root causes. The function of international agencies, organizations, foundation and churches in improving the quality of life for people of the developing nations. Roles of agricultural education and extension at all levels for enhancing the effectiveness of indigenous programs of rural development and adult education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: International Dimension

AGED 4990 Seminar and Problems in Agricultural Education
Description: Small group and/or individual study and research in problems relating to programs of occupational education in agriculture. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5102 Creative Component in Agricultural Education
Prerequisites: AGED 5983 or equivalent; consent of instructor.
Description: Independent research or project management under the direction and supervision of a major adviser.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5123 Adult Programs in Agricultural and Extension Education
Description: Determining adult needs, priorities, participation in educational activities, and adoption of new ideas and practices. Designing, organizing, conducting, and evaluating adult education programs in agricultural and extension education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5203 Grant Seeking
Prerequisites: Graduate standing or consent of instructor.
Description: External funding proposal development for foundation and government agencies. Conceptualizing projects, identifying funding sources, and develop proposals that follow RFP guidelines including a literature review, need for the project, approach, timeline and budget. Previously offered as AGED 5202.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5300 Extension Tchg Meth
Credit hours: 1-24
Contact hours: Lecture: 1-24 Contact: 1-24
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5311 Laboratory and Clinical Experiences in Agricultural Education for Graduate Students
Prerequisites: Graduate Standing.
Description: Preprofessional clinical experiences in agricultural education teaching and related careers. Study of research literature related to school-based agricultural education. Requirement for admission to professional education and student teaching. For graduate students pursuing teacher certification.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5313 Foundations and Philosophies of Teaching Agricultural Education for Graduate Students
Prerequisites: Graduate Standing.
Description: Study of educational philosophers impacting school-based agricultural education, roles and responsibilities of the agricultural education teacher, types of program offerings, steps of the teacher-learning process, and the place of agricultural education in relation to other educational programs in school systems. For graduate students pursuing teacher certification. Same course as AGED 3013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5323 Advising Agricultural Student Organizations & Supervising Experimental Learning for Graduate Student
Prerequisites: Graduate Standing.
Description: Determining resources and trends of local communities with respect to agricultural production and agribusiness. Emphasis on agricultural education program policies, FFA chapter advisement, and supervision of experiential learning projects. Development of project for teaching agriculture. For graduate students pursuing teacher certification. Same course as AGED 3203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5333 Methods of Teaching Agricultural Education for Graduate Students
Prerequisites: Graduate standing.
Description: Facets of the teaching and learning process with an emphasis on the identification and integration of teaching methods in the school-based agricultural education curriculum. Preparation for the student teaching internship. For graduate students pursuing teacher certification. Includes exploration and application of research about teaching school-based agricultural education. Previously offered as AGED 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5343 Professional Development in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202.
Description: Professional preparation and development for careers as agricultural educators. Professional correspondences, interviewing, networking, and other employability skills. Reflection and evaluation of instruction, project supervision and advising of youth leadership development organizations. May not be used for degree credit with AGED 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5500 Directing Programs of Supervised Experience
Prerequisites: Consent of instructor.
Description: Determining the supervised training needs and opportunities of individual students. Planning for supervision of agricultural education training programs and 4-H club projects. Analysis of training opportunities in production agriculture, agricultural businesses and individual career development. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5623 Volunteer Management in Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: Concepts, theories and practices relevant to the management of volunteers with an emphasis on recruiting, managing, and training in formal or non-formal educational settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5703 Cultural Competency for Working in Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: Examination of strategies to increase intercultural intelligence, and cultural competence. Focus on concepts of cultural values and stereotypes, intercultural sensitivity, cultural differences, cultural transitions, and intercultural theories for agricultural and extension educators.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5813 College Teaching of Agriculture and Natural Resources
Prerequisites: Consent of instructor.
Description: Facets of the teaching-learning process used to teach agriculture and natural resources in higher education including teaching methods, instructional skills, application of instructional technology, student motivation, and evaluation of learning. Previously offered as AGED 6120.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5823 Advanced Methods of Teaching Agriculture
Description: Advanced concepts and methods relevant for both formal and informal presentations. Effects methods may have on individuals involved in the learning experience. Demonstrations of proficiency in use of various advanced methodologies, technologies and concepts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5900 Graduate Internship in Agriculture
Prerequisites: Admission to Master of Agriculture program; consent of graduate coordinator.
Description: Supervised internship in agricultural education, government agency, industry, Cooperative Extension, or not-for-profit organizations. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5990 Problems in Agricultural and Extension Education
Description: Securing and analyzing data related to special problems or investigation in designated areas of agricultural education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 6103 History and Philosophical Foundations of Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: History and philosophical foundations of agricultural and extension education. Philosophy and its role in life, rise of education in America, philosophical foundations of education in America, legislation having an impact on agricultural and extension education, education in agriculture and current issues in agricultural extension education. Previously offered as AGED 5820.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 6983 Qualitative Research Methods in Agricultural Education
Prerequisites: Graduate standing, AGED 5983 or other graduate level social science research methods course.
Description: A comprehensive examination of qualitative research methods including identifying a problem, data collection, interpretative analysis, ensuring trustworthiness, theory construction and reporting. Previously offered as AGED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

Agricultural Education, Communications, and Leadership (AECL)

AECL 1101 Orientation to Agricultural Education, Communications and Leadership
Description: Introduction and orientation to areas of study, professional activities, and career opportunities in agricultural education, communications, and leadership.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 4003 Developing Rural Scholars for Civic and Community Engagement
Description: Knowledge and skills to effectively serve rural citizens and conduct community-engaged research. Place-based research allows exploration of unique challenges and opportunities of rural communities, analysis of existing research, and development of innovative approaches to address community needs. Combination of classroom discussions, fieldwork, and community-based projects to gain understanding of rural contexts. May not be used for degree credit with AECL 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 4800 International Study Tour in Agricultural Education, Communications and Leadership (G)
Prerequisites: Consent of instructor.
Description: An experiential learning course featuring an international travel component. Provides an integrated approach to studying the agriculture, communication, education, natural resources, culture, history, government, economy, and religion of a particular region. Special emphasis placed up on formal and informal educational programs and/or communications focusing on agriculture and natural resources. Previously offered as AGED 4803. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: International Dimension

AECL 5000 Master's Thesis/Report in Agricultural Education, Communications and Leadership
Prerequisites: Approval of adviser.
Description: Independent research planned, conducted and reported in consultation with and the direction of a major professor for students pursuing a master's degree in agricultural education, communications and leadership. Previously offered as AGED 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AECL 5003 Developing Rural Scholars for Civic and Community Engagement
Description: Knowledge and skills to effectively serve rural citizens and conduct community-engaged research. Place-based research allows exploration of unique challenges and opportunities of rural communities, analysis of existing research, and development of innovative approaches to address community needs. Combination of classroom discussions, fieldwork, and community-based projects to gain understanding of rural contexts. May not be used for degree credit with AECL 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 5101 Orientation to Graduate Programs in Agricultural Education, Communications and Leadership
Description: Orientation to graduate programs in agricultural education and communications including degree expectation, understanding scholarship, orientation to the discipline, introduction to research agendas, and identification of support systems. Previously offered as AGED 5101.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 5800 International Study Tour in Agricultural Education, Communications and Leadership
Prerequisites: Consent of instructor.
Description: Experiential learning course for graduate students featuring an international travel component. Provides an integrated approach to studying the agriculture, communication, education, natural resources, culture, history, government, economy, and religion of a particular region. Special emphasis placed upon formal and informal educational programs and/or communications focusing on agriculture and natural resources. Previously offered as AGED 5803. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 5863 Methods of Technological Change
Description: Processes by which professional change agents influence the introduction, adoption, and diffusion of technological change. Applicable to persons who work closely with people in formal and non-formal educational settings. Previously offered as AGED 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 5983 Social Sciences Research in Agricultural Sciences and Natural Resources
Description: Research methods presented in support of decision-making in a scientifically literate world. Literature, logic and research approaches in quantitative and qualitative paradigms. Context is the social sciences associated with agricultural sciences and natural resources. Addresses preparation of proposals for theses, dissertations, formal reports, and creative components. Previously offered as AGED 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 5993 Social Sciences Data Analysis and Interpretation in Agricultural Sciences and Natural Resources
Prerequisites: Graduate courses in research methods and social sciences statistics.
Description: Study and application of various approaches used to analyze data associated with social sciences research in the context of agricultural sciences and natural resources. Previously offered as AGED 5993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 6000 Doctoral Dissertation in Agricultural Education, Communications and Leadership
Prerequisites: Approval of adviser.
Description: Independent research planned, conducted and reported in consultation with and the direction of a major professor. Open only to students pursuing graduate study beyond the master's degree level. Offered for variable credit, 1-16 credit hours, maximum of 16 credit hours. Previously offered as AGED 6000.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AECL 6063 Research Applications with Q Methodology
Description: Research applications using qualitative, quantitative and Q methodology. Subjectivity and abductive reasoning explored with a limited research project. Professional research skills, including ethics, process, team research and manuscript development. Previously offered as EPSY 6063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 6100 Graduate Seminar in Agricultural Education, Communications and Leadership
Prerequisites: Graduate standing.
Description: Discussion of issues, problems and trends in agricultural education, communications and leadership. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AECL 6223 Program Evaluation in Agriculture and Extension
Prerequisites: Graduate standing.
Description: Program evaluation theory and methodology applied to agricultural and extension contexts. Previously offered as AGED 6220 and AGED 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AECL 6363 Experiential Learning Theory in Agricultural Settings
Description: Experiential learning as both educational theory and pedagogical practice. Review of seminal literature, empirical research, and historical documents related to experiential learning theory. Experiential learning application in educative agricultural settings through classroom-based lessons, project-based learning, service learning, guided inquiry, field trips, internships/externships, study abroad, and outdoor/adventure learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

Agricultural Leadership (AGLE)

AGLE 1511 Introduction to Leadership in Agricultural Sciences and Natural Resources
Description: Introduction to the concept of leadership as a field of study. Emphasis placed on the application of acquired knowledge to practical problems. Previously offered as AGED 1511.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 2303 Agricultural Leaders in Society (S)
Description: Analysis of agricultural leaders and societal impacts. Theories of authentic leadership and values-based leadership. Organizational, community, and workforce changes including diversity, technology, and globalization and the relationship to leader behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Society & Human Behavior

AGLE 2403 Agricultural Leadership in a Multicultural Society (DS)
Description: The study of leadership as it relates to a multicultural society. Cultural changes in the agricultural workplace and future impact on the industry. Personal barriers to fulfilling leadership roles in the agricultural sciences and natural resources. Skills related to managing teams in a diverse workplace specifically related to differences in gender, race and ethnicity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Diversity, Society & Human Behavior

AGLE 3101 Introduction to Agricultural Leadership
Prerequisites: Major in AGLE or consent of instructor.
Description: Exploring leadership in the context of agriculture. Specific topics will include authentic leadership, independent thinking, commitment to agriculture, open minds and professionalism. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3303 Agricultural Leadership: Theory and Practice
Description: A study of the concepts and theories of leadership with emphasis on the development of leadership abilities in the individual for different group situations. Previously offered as AGED 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3333 Contemporary Issues in Leadership
Prerequisites: AGLE 2303, AGLE 3303.
Description: Explore current issues in the study of leadership. Themes based on current leadership research and writings that reveal new understandings of the leader's role as a servant, facilitator and collaborator. Previously offered as AGED 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3403 Facilitating Social Change in Agriculture
Description: Examination of processes by which professional agriculturists influence the introduction, adoption, and diffusion of technological change. Previously offered as AGED 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3503 Introduction to Cooperative Extension
Description: Cooperative Extension mission, philosophy, history, organization, structure, administration, and program areas. Extension program development, Extension teaching and delivery methods, and the involvement and use of volunteers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3803 Global Leadership in Agriculture (G)
Description: Contemporary global leadership in the context of agriculture. Challenges, cross-cultural conflict, managing diversity, and ethical behavior. Exploration of global leaders including Africans, Asians, Europeans, and Middle Easterners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: International Dimension

AGLE 4101 Seminar in Leadership Education
Prerequisites: AGLE 2303, AGLE 3303.
Description: In-depth exploration of leadership topics related to agricultural sciences and natural resources.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4203 Professional Development in Agriculture
Prerequisites: AGLE 3101; junior standing.
Description: Preparation of professionals in agricultural business and industry and related areas who have career goals directed toward service, leadership, management, communications, production, processing, marketing, and education outside the public school setting. Development of professionalism through relationship building, networking, interviews, community involvement, business correspondence, websites and the resume. Previously offered as AGED 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4300 Agricultural Leadership Internship
Prerequisites: AGLE 3101, AGLE 4203 and consent of instructor.
Description: Supervised full-time internships in approved agribusinesses, governmental agencies or country extension offices. Requires written reports and a final presentation. Previously offered as AGED 4300. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 4303 Facilitating Leadership Education Programs
Prerequisites: AGLE 2303, AGLE 3303.
Description: Identification and application of methods and techniques for teaching leadership education programs in formal and non-formal educational settings. Focus on using experiential methods of teaching leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4803 International Agricultural Leadership Tour
Description: An experiential approach to the study of contemporary culture, agriculture, and leadership in a region outside the United States. Contemporary leadership of the region and implications related to agriculture. Comparison of leadership and agricultural practices in the designated region to that of the United States. Includes a two-week international travel component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4990 Problems in Agricultural Leadership
Prerequisites: Consent of instructor.
Description: Small group and/or individual study and research in problems related to agricultural leadership. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 5102 Creative Component in Agricultural Leadership and Extension Education
Prerequisites: Consent of instructor.
Description: Independent project under the direction and supervision of a major advisor. Creative component projects address an agricultural leadership and/or extension education issue with the goal to inform or improve practice based upon scholarship. Open to students pursuing a Master of Agriculture degree (M.Ag.) with an option in Agricultural Leadership.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 5303 Foundations of Leadership Theory
Description: Study of leadership theory including definitions of leadership, a history of modern leadership theory, and current trends in leadership practice and research. Models of leadership including contingency models, situational leadership and transformational leadership. Previously offered as AGED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 5353 Leadership in Agriculture
Prerequisites: AGLE 5303 or consent of instructor.
Description: Concepts, principles, and philosophies of leadership applied to agricultural contexts. Importance of traits, perceptions, and behaviors to success of agricultural professionals in leadership roles. Dimensions and style of leadership for varying situations. Previously offered as AGED 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 5990 Problems in Agricultural Leadership and Extension Education
Prerequisites: Consent of instructor.
Description: Investigation in designated areas of agricultural leadership and/or extension education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 6203 Extension Program Development
Description: A systematic study of the history, culture and functions of the Cooperative Extension System in America. Focus on program planning, including needs assessments, involvement of local constituent groups, use of the logic model, teaching methods, program evaluations, marketing and planning for the future. Previously offered as AGED 6200.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

Agricultural Systems Technology (AST)

AST 1413 Introduction to Engineering in Agriculture
Prerequisites: MATH 1513 or concurrent enrollment.
Description: Application of the physical and engineering sciences to agricultural problems. Energy; energy conversion; thermal, electrical, mechanical and fluid systems; equipment calibration; environmental control of agriculture buildings and irrigation system requirements. Previously offered as MCAG 1413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

AST 2313 Surveying
Prerequisites: MATH 1613 or MATH 1583 or MATH 2103.
Description: Equipment and practices used in surveying small areas. Common practices of plane surveying: differential, profile, and topographic leveling; field notes, accuracy and precision, error and error control, and introduction to global positioning systems for land measurement. Previously offered as MCAG 2313.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 3011 Ag Structures
Prerequisites: MATH 1513.
Description: Study of types of agricultural structures, building materials, construction tools and methods. Laboratory will provide opportunity to apply and develop associated skills. Previously offered as MCAG 3011.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

AST 3103 Electrical Power and Industrial Control in Agriculture
Prerequisites: MATH 1513 or MATH 2103 or MATH 2123 or MATH 2144
Description: Principles, function, design, operation, and safe application of electrical components and industrial control systems commonly used for agricultural applications. Topics include AC/DC circuit design, analysis and safety; single-phase and three-phase AC motors, variable frequency drives, relays and logic circuits; electrical generation, transmission and storage; power factor correction and billing. Previously offered as AST 3102.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 3211 Engines and Power
Prerequisites: MATH 1513.
Description: Theory, operation, performance and diagnostics of internal combustion engines for mobile applications. Previously offered as MCAG 3211.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

AST 3222 Metals and Welding
Description: Welding safety and the principles and applications of gas, stick and MIG welding, and cutting. Previously offered as MCAG 3223 and MCAG 3222.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 3232 Lab Management and Project Construction
Prerequisites: MCAG 3222.
Description: Theory and practice of managing secondary school Ag Mechanics laboratories including safety, organization, design, project construction and evaluation of student projects. Previously offered as MCAG 4223 and MCAG 3232.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 4013 Capstone for Agricultural Systems Technology
Prerequisites: Senior standing and AST 4303 and AGEC 3423.
Description: Application of problem solving skills on team-based professional projects involving agricultural technology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 4101 Ag Electrification
Prerequisites: MATH 1513.
Description: A study of electrical theory and electrical applications in agricultural environments. Previously offered as MCAG 4101.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

AST 4112 Land Measurement and Site Analysis
Prerequisites: MATH 1513 or equivalent.
Description: Methods and techniques used to locate sites and evaluate physical conditions. Includes map interpretation and land description, use of Global Positioning Systems, Rectangular System of Land Description and determination of land elevations, areas and slopes. Same course as ENVR 4112. Previously offered as MCAG 3311 and MCAG 4112.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 4123 Principles of Food Engineering
Prerequisites: MATH 1513.
Description: For non-engineers. Application of the engineering approach to solving heat and mass transfer problems in food processing. An introduction to the basic concepts of the conservation laws, fluid flow, heat transfer, refrigeration, freezing, psychrometrics, and energy conservation. Same course as FDSC 4123. Previously offered as MCAG 4123. May not be used for Degree Credit with AST 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

AST 4200 Topics in Agricultural Systems Technology
Description: Investigations in specialized areas of mechanized agriculture. Previously offered as MCAG 4200. May not be used for Degree Credit with AST 5200. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

AST 4203 Agricultural Water Management
Prerequisites: MATH 1513 or MATH 2103
Description: Basic concepts and applications involved in sustainably managing water in agricultural applications. Topics covered include principles, function, design, operation, and application of agricultural water management, soil-water-plant relationships, irrigation water supplies, characteristics and selection of irrigation systems, selection of pumps, irrigation scheduling and efficiency, and environmental impacts. Previously offered as MCAG 4203. SOIL 2124 recommended as a prerequisite.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 4213 Safety and Health in Agriculture
Prerequisites: Junior standing or above.
Description: Causes and prevention of accidents in agriculture; acute and chronic risks of machinery, animals, gases, confined spaces, and hazardous materials; understanding of current OSHA and NIOSH requirements and regulations. Previously offered as MCAG 4212 and AST 4212.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 4220 Advanced Methods in Agricultural Systems Technology
Description: Developing agricultural mechanics programs for vocational agriculture and technical schools. Application of agricultural mechanics methods, practices and skills to advanced projects. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lab: 2-12 Contact: 3-18 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study, Lab, Combined lab & IS
Department/School: Biosystems & Ag Eng

AST 4303 Automation, Sensors and Controls for Agricultural Systems
Prerequisites: (MATH 2103 or MATH 2123 or MATH 2144) and AST 3103.
Description: Principles of sensors, controllers, actuators, data communication networks and interface electronics applied to agricultural, food and natural systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

AST 5123 Principles of Food Engineering
Prerequisites: MATH 1513.
Description: For non-engineers. Application of the engineering approach to solving heat and mass transfer problems in food processing. An introduction to the basic concepts of the conservation laws, fluid flow, heat transfer, refrigeration, freezing, psychrometrics, and energy conservation. May not be used for degree credit with AST 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

AST 5200 Topics in Agricultural Systems Technology
Description: Investigations in specialized areas of mechanized agriculture. May not be used for degree credit with AST 4200. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

Agriculture (AG)

AG 1011 First Year Seminar
Description: Learning strategies, student success resources, advisement systems, co-curricular opportunities, degree requirements and career opportunities in various fields of agricultural sciences and natural resources. Required of all freshmen in the College of Agricultural Sciences and Natural Resources. Same course as UNIV 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 1111 Career Exploration in Agricultural Sciences and Natural Resources
Description: Application of the career planning cycle and detailed exploration of career opportunities in the agricultural industry and natural resources field.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 2890 Special Topics in Agricultural Sciences and Natural Resources
Prerequisites: Consent of instructor.
Description: Individual and small group study or research in agricultural sciences and natural resources topics and issues. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 3010 Internships in Agriculture
Prerequisites: Junior standing or consent of instructor.
Description: Supervised internships with business, industry or governmental agencies, including cooperating veterinarians. Graded on pass-fail basis, but some sections may utilize standard grading (A-F). Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AG 3011 Transfer Seminar in Agricultural Sciences and Natural Resources
Description: Resources, strategies and skills to facilitate transfer student success including academic advisement processes, university policies, degree completion plans, co-curricular opportunities and career connections. Professional networking and personal skill set development to support career objectives in agricultural sciences and natural resources.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 3080 International Experience
Prerequisites: Consent of the associate dean of the college.
Description: Participation in a formal or informal educational experience outside of the USA. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AG 3090 Study Abroad (G)
Prerequisites: Consent of the Study Abroad office and associate dean of the college.
Description: Participation in an OSU reciprocal exchange program. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture
General Education and other Course Attributes: International Dimension
Additional Fees: Study Abroad fee of $200 applies.

AG 3111 Career Planning and Skill Development
Description: In-depth application of career research and literature to the internship search, full-time job search, and graduate school application and decision-making processes, as related to the agricultural industry and natural resources field.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 3803 Study Abroad Course in Agriculture and Natural Resources (G)
Prerequisites: Consent of instructor.
Description: A two-three week international travel component. An integrated approach to the study of agriculture, natural resources, culture, history, and technological advance of a region.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture
General Education and other Course Attributes: International Dimension

AG 4010 Honors Seminar
Description: Role of agriculture in society and adjustments to change in the economy. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture
General Education and other Course Attributes: Honors Credit

AG 4013 Preparation for Honors Thesis Research
Prerequisites: Honors Program participation, senior standing, instructor approval.
Description: A guided reading and research program in preparation for an honors thesis research project under the direction of a faculty member. Required for graduation with college honors in agriculture.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture
General Education and other Course Attributes: Honors Credit

AG 4023 Senior Honors Thesis
Prerequisites: AG 4013, Honors Program participation, senior standing, instructor approval.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader, oral examination, and public presentation of thesis findings. Required for graduation with college honors in agriculture.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture
General Education and other Course Attributes: Honors Credit

AG 4890 Special Topics in Agricultural Sciences and Natural Resources
Prerequisites: Consent of instructor.
Description: Individual and small group study or research in agricultural sciences and natural resources topics and issues. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AG 4990 Special Problems in International Agriculture and Natural Resources
Prerequisites: Consent of instructor.
Description: A two-three week international travel component. An integrated approach to the study of agriculture, natural resources, culture, history, and technological advance of a region. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

American Indian Studies (AMIS)

AMIS 1000 Special Topics in American Indian Studies
Description: Selected introductory American Indian Studies topics presented in lecture or seminar format. Offered for variable credit, 1-5 credit hours, maximum of 8 credit hours.
Credit hours: 1-5
Contact hours: Lecture: 1-5 Contact: 1-5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMIS 2013 Introduction to American Indian Studies (D)
Description: This course is designed to present an indigenous perspective to explore both the historical and contemporary issues facing Native American people. The course examines the history and development of American Indian Studies as an academic discipline and provides an introduction to the field of employing a broad interdisciplinary approach. A range of topics are covered, including Native history, sociology, art/culture, literature, geography, law, and entrepreneurship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMIS 3713 Native American Entrepreneurship (D)
Description: Analysis and presentation of economic issues specific to American Indian tribes, business enterprises, and entrepreneurial ventures in Indian country - emphasizing the important distinction of American Indians as sovereign nations. This course offers a wide variety of opportunities for learning, including in-class exercises, class projects, and American Indian guest speakers with a range of business backgrounds and entrepreneurial experience (e.g., tribal and private enterprises). Previously offered as EEE 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMIS 4000 Independent Study in American Indian Studies
Description: In-depth discussion of topics and issues in American Indian Studies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

AMIS 4013 American Indian Sovereignty (D)
Description: Critically analyzes historical and contemporary experiences of American Indians in society. Examines the importance of tribal sovereignty for the socio-political, cultural, and religious rights of Native people. Federal Indian law provides a context for understanding historical indigenous experience and informs understanding of the Native American perspective. Explores contemporary sovereignty issues and proposed solutions that impact American Indians in relation to broader American culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

American Sign Language (ASL)

ASL 1713 American Sign Language I (F)
Description: Introduction to American Sign Language: development of receptive and expressive skills in authentic situations and an introduction to Deaf Culture; fingerspelling, numbers, classifiers, and facial expressions. Not for native speakers per University Academic Regulations 4.9. Previously offered as ASL 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 1813 American Sign Language II (F)
Prerequisites: ASL 1713 or equivalent proficiency.
Description: Continuation of ASL 1713, further development of receptive and expressive skills in authentic situations and study of Deaf Culture. Learners are required to attend functions within the Deaf Community and focus on the different accents within sign language. Not for native speakers per University Academic Regulation 4.9. Previously offered as ASL 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2713 American Sign Language III (F)
Prerequisites: ASL 1813 or equivalent proficiency.
Description: This course is designed to provide a development of skills in non-verbal communications and increased understanding of the types and uses of classifiers in ASL. Emphasizes the use and understanding of facial expression, gestures, pantomime, and body language. Students will develop further abilities to utilize this component of ASL in their expressive and receptive signing abilities. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2723 American Deaf Culture
Prerequisites: ASL 1813 or equivalent proficiency.
Description: This course provides an analysis of the development and historical overview of Deaf culture in the United States. Topics include: education of the D/deaf; Deaf films, theaters, arts, and clubs; preservation of American Sign Language; technology and services in the Deaf community. The student's acculturation process is facilitated by active participation in the Stillwater/Tulsa Deaf community. This course is taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2813 Intermediate Grammar
Prerequisites: ASL 2713 or equivalent proficiency.
Description: This course delves into the grammatical structures in ASL; work on developing receptive skills for voicing. Continued work on production of ASL that includes pronominalization, classifiers and locatives, distributional, temporal, pluralization, and grammatical structures. Students will view and analyze ASL stories, and be required to go out to the community to gain further understanding of these issues firsthand. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2823 Cultural Diversity in the Deaf Community
Prerequisites: ASL 2723 or equivalent proficiency.
Description: This course covers ethnic and cultural diversity within the American Deaf community specifically. Deaf people of color. Students explore how biases and stereotypes form, do self-analysis and consider how these factors may impact their work as Deaf interpreters. Students also research a variety of organizations representing Deaf ethnic and cultural groups further developing their individual resources. Also examined are societal attitudes regarding disability in general and hearing loss and communication difficulties in particular.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3113 Cognitive Processing
Prerequisites: ASL 2813 or equivalent proficiency.
Description: This course introduces cognitive processes of communication. Cognitive processing underlies some of the more complex aspects of simultaneous interpreting. Topics to be covered in the course include language and intralingual skills, memory, comprehension, and routinization of complex cognitive linguistic tasks. Students will develop further abilities to utilize this component of ASL in their expressive and receptive signing abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3123 Translation
Prerequisites: ASL 3113 or equivalent proficiency.
Description: This course focuses on developing translation skills. Translation skills are critical in delivering message equivalence between languages. Emphasis will be on preparing to translate, interlingual meaning transfer, target language form, framing the cognitive interpreting process, and norms of diverse linguistic populations. The translation skills acquired from this course serve as a foundation for consecutive and simultaneous interpreting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3500 Interpreting Special Areas
Prerequisites: Consent of instructor.
Description: Instruction and/or tutorial work in American Sign Languages other than those offered in the major program. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 3713 Introduction to Interpreting
Prerequisites: ASL 2813 or equivalent proficiency.
Description: An introduction to the profession of sign language interpreting, which includes an overview of the history of interpreting and interpreting and interpreting organizations, the roles and responsibilities of the interpreter, an overview of various work venues, and a study of skills required to express communication without the spoken word using facial expression, body language, and gestures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3723 Science, Technology, Engineering, and Math I
Prerequisites: ASL 2813 or equivalent proficiency.
Description: This course is designed to teach vocabulary and concepts about topics within the primary and early secondary educational STEM settings. Students will learn about applicable laws for K-12 interpreting, resources for STEM, Deaf education in K-12, and introduction to the field's standard practice of educational interpreting. The course will have project-based and problem-based learning activities. The course will help prepare students who seek to enter the K-8th public school system as sign language interpreters or Deaf education teachers. This course will be taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3733 Consecutive Interpreting
Prerequisites: ASL 3713
Description: This course focuses on developing consecutive interpreting skills from American Sign Language to spoken English and back. Course topics include fidelity, comprehension, memory, reformation, self-monitoring and repair techniques. The course is built on readings, discussion, practice and self-analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3813 Linguistics of American Sign Language
Prerequisites: ASL 2813 or equivalent proficiency.
Description: Presents authoritative readings on the most current linguistic concepts, including the fundamentals of phonology, morphology, syntax, semantics, and the use of language; stimulate discussion about the ongoing development of ASL linguistic theory; look at groundbreaking research on iconic signs in ASL, variation in ASL, different functions of space in ASL, and the artistic forms of ASL. Previously offered as ASL 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3823 Science, Technology, Engineering, and Math II
Prerequisites: ASL 3723 or equivalent proficiency.
Description: This course is a continuation of STEM I and is designed to teach vocabulary and concepts about topics within secondary and post-secondary educational STEM settings. The course will involve participation in problem and project-based learning activities. Students will continue to learn applicable laws, resources to match both target educational levels, and the profession's standard practice for both settings. The course will help prepare students to enter the secondary and post-secondary school system as sign language interpreters or Deaf education teachers. This course will be taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4003 Practicum I
Prerequisites: ASL 3773 and Instructor Permission.
Description: This course provides essential skills, knowledge, and preparation for the practical internship experience (ASL 4750: Practicum II).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4550 Seminar in ASL
Prerequisites: Consent of instructor.
Description: Readings and discussion of vital subjects in American Sign Language. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 4713 American Sign Language Literature
Prerequisites: ASL 2813 or equivalent proficiency.
Description: Focus on ASL literature and narrations. Use of authentic stories from deaf presenters. Creation of poems and narrative stories that follow ASL structure and grammatical rules based on stories and history gleaned of the community of the Deaf World.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4723 Simultaneous Interpreting
Prerequisites: ASL 3713
Description: This course is a continuation of consecutive interpreting and focuses on English and ASL simultaneous interpreting skills. Course topics include identifying sources of error, comprehension, transfer, reformulation, and self-monitoring. Students will also further develop their linguistic competencies of ASL and English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4750 Practicum II
Prerequisites: ASL 4003 and Instructor Permission.
Description: Students will complete a part-time (or full-time) practicum interpreting experience under the direct supervision of a mentor in an educational, public, or private setting. Students will coordinate interpreting services, participate in professional development activities, observe interpreted events, and interpret. This course does not require on-site class meetings. The internship is completed at the site(s) agreed upon by the student, internship mentor, and the course faculty member.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 4813 Ethics for Interpreters
Prerequisites: ASL 3713
Description: Understand the purpose and obligations of an interpreter; how this role will affect the interpreter as well as others, since all actions have consequences. Look at stakeholders and short-term and long-term effects of decisions made and be able to support those decisions with ethical standards. Preparation to take the State of Oklahoma Quality Assurance Screening Test (QAST) by the end of the course. Previously offered as ASL 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4833 Interactive Interpreting
Prerequisites: ASL 3713
Description: This course explores how sign language interpreters work in an interactive discourse setting. The focus of the course will be on the dialogic nature of interpreting, the role of the interpreter through discourse, the impact of the presence of an interpreter, and the range of settings that require interactive skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

American Studies (AMST)

AMST 2103 Introduction to American Studies (DH)
Description: Introduction, via topical case studies, to some of the major themes, methods and materials used in the interdisciplinary study of American culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 2423 American Popular Culture (H)
Description: History of American popular culture and its role in shaping social behaviors, beliefs, and relations, especially as regards issues of race, class, gender, sexuality and social power. Previously offered as AMST 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2473 American Imperial Culture
Description: This course is designed to be a broad survey of American Imperial culture, and responses to it, with a focus on the period from 1890 to 1960. Same course as HIST 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 2513 Plantation to Plate: Sugar, Bananas, and Coffee in America (H)
Description: Considers the historical impact that three food commodities - bananas, sugar, and coffee - have had on producing and consuming societies in Latin American and the United States. Analyzes the way food influenced the formation of racial and gender identities and examines different moments when these commodities influenced foreign policy and politics. Same course as HIST 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2523 Dust Bowl (H)
Description: Examination of the Dust Bowl as: an ecological, economic, and human tragedy; cultural representations in film, literature, art, photography, and music; and a comparative example to study modern issues of ecology, water rights, and environmental justice in the southern plains and around the world. Same course as HIST 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2683 Introduction to Digital Humanities (H)
Description: Introduction to issues and tools involved in digital knowledge production. Students will create hands-on projects using readily available digital tools. Basic familiarity with computers and word processing will be helpful, but no expertise is needed. Previously offered as AMST 3683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3103 The History and Future of Work (H)
Description: What will work be like in the future? This course explores recent developments in work and the workplace. It draws on an array of. sources such as scholarship, journalism, memoirs, popular films, TV shows, and writings on the effects of technology on the labor market, workplace culture, and identity. Through these sources, the course will provide you with a roadmap to the future of work as well as a rich lens into ideas, cultural values, experience, and aesthetics relating to work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3113 Science, Literature, and Culture (H)
Description: This course provides students with opportunities for critical reading, thinking, discussion, and writing about the physical and life sciences, their history, and the cultural roles they play, especially in relation to literature. This course is structured as a general survey of the social and cultural study of science, examining major works in the history, philosophy, and sociology of science in conjunction with major works of English-language literature that engage directly with the sciences. Same course as ENGL 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3223 Theories and Methods of American Studies
Description: In-depth introduction to the history, theories and methods of analysis used in American Studies scholarship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 3253 Globalization and American Culture (H)
Description: Transmission, reception, and influence of American culture in one or more of the following: Europe, Asia, Latin America, the Middle East. The cultural history of globalization and American culture. Same course as HIST 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3303 Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
Description: Examines Latin American migration to the United States through a case study approach. Considers US foreign policy, questions of labor and economic motivations, political violence and persecution, changes in immigration law, environmental issues, histories of the process of migration, and the formation of new identities and transnational communities and activism in the United States. Same course as HIST 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3313 Science, Technology and American Culture (H)
Description: American science and technology as systems of cultural representation, as communities of cultural practices, as mutually determined by other forms of cultural representation such as religion, social thought, art, architecture, literature, and music.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3333 Crime, Law and American Culture (S)
Description: Study of crime, law and the legal system from a cultural perspective. Examine how race, gender, and social class play different roles in issues related to crime, law and the legal system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

AMST 3373 Comparative Truth and Reconciliation in the Americas (D)
Description: Comparative study of truth and reconciliation in Oklahoma and beyond. Explores theories and practices of reconciliation in multicultural contexts. Emphasis on the relationship between past injustices and contemporary social problems. Possible topics might include the Tulsa Race Massacre, Native American boarding schools, and the internment or Japanese Americans in World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMST 3413 Science Fiction (H)
Description: This course will survey the development of science fiction literature as a genre, focusing on major figures and important topics from its beginnings to the contemporary scene. In examining the evolution of science fiction storytelling, we will also investigate how science fiction both reflects and influences broader historical and cultural changes in the 19th, 20th and 21st centuries. Same course as ENGL 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3473 Race, Gender, and Ethnicity in American Film (D)
Description: A survey of race, gender, and ethnicity as they have been represented in American films. Same course as ENGL 3473.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMST 3503 Television and American Society (DH)
Description: Examination of television within the social and cultural context of the US. Looks at the aesthetic and industrial practices that shape representation on TV and the effects of those practices, particularly for socially disempowered groups. Same course as ENGL 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3513 Film And American Society (H)
Description: Examination of the US film in its social, political, economic, and cultural contexts. Topics may include the history of US film production, distribution and consumption; Hollywood film genres; independent cinema; the star system; and/or representations of historical events, political issues, or social groups in US film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3550 The Arts and American Society
Description: Interdisciplinary study of major figures, trends, themes, periods, and modes of representation in American thought and cultural expression. Emphasis on the relationship between the arts and social, political, and historical context. Examples include Realism, American Modernism, Regionalism, American Postmodernism, the City and the Country, the Other, Nationalism, Time, and Space. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 3653 The Body in American Culture (DH)
Description: The body and its impact on American culture examined through a survey of diverse cultural productions and social practices. Examine the intersections of ideas of embodiment with discourse of race, class, gender, sexuality, disability, and nationalism. Same course as HIST 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3673 History Of American Art (DH)
Description: Visual arts in America from the Colonial period to present. Major styles, ideas and uses of material in architecture, painting, sculpture and design. Same course as ART 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3723 Cultural History of American Sports (DH)
Description: Examines the role of sports in American cultural history; analyzes issues of class, ethnicity, gender, nationalism and race; interprets the importance of athletic heroes, fans, performance, and rituals; evaluates amateur, collegiate, Olympic, and professional institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3753 African American Arts and Culture (DH)
Description: An exploration of the history, practice, and significance of African American arts and culture. Topics might include black visual, literacy, filmic, musical, and street arts, artists, and movements. Approaches may be comparative or transnational. Same course as AFAM 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3803 War In American Culture (H)
Description: Study of war and its impact on American culture through an examination of diverse cultural productions and social practices. Emphasis on the circulation of common (and contested) representations of war within American visual, literary, and memorial culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3813 Readings in the American Experience (DH)
Description: Life in the New World from the colonial to the postmodern era using a multiplicity of interdisciplinary texts that demonstrate the emergence and ongoing evolution of distinctive American identities. Same course as ENGL 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3823 U.S. as Business Culture (DH)
Description: Examines American business in relation to political, social and cultural phenomena, emphasizing the implications of business for race, class, gender and nation. Themes considered may include business literature, advertising, film, documentary, and other forms of popular and visual culture. The course examines changes in business and business culture over time, and offers students opportunities to synthesize sources that are not usually considered together.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3843 War and Memory in America (H)
Description: Examines the ways in which Americans have remembered and commemorated war from the American Revolution to the Global War on Terror. Topics include the creation and perpetuation of memory from both soldiers and civilians, the portrayal of war in popular culture, and the challenges of commemorating and memorializing America's militant past. Same course as HIST 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3863 Disability in America (DH)
Description: Examines the history of disability in American culture. Considers evolving ideas about disability and the status of disabled people in American society. Topics include disability and the law; eugenics; the disability rights movement; representations of disability in popular culture; and intersecting ideas about disability, race, gender, and class. Same course as HIST 3863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3950 Special Topics in American Studies (DH)
Description: Special topics in American culture and society with an emphasis on race, class, gender, sexuality and other forms of diversity. Topics will vary, but all courses will emphasize both historical and contemporary examples and include analytical research and writing. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. 3 credit course, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3980 Inquiry in American Studies
Description: For students interested in pursuing a research or reading project. Open to honors students in American Studies and to others by permission of the program head. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4103 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital cases and how the criminal justice responds to these issues. Same course as HIST 4203 and SOC 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

AMST 4453 Black Geographies & Memorialization in the Landscape (DH)
Prerequisites: Junior or senior standing or consent of instructor.
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. Same course as AFAM 4453 and GEOG 4453. May not be used for degree credit with GEOG 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 4553 Gender in America (DH)
Description: Cultural, societal and political reflections of American men and women from the colonial era to the present. Examination of the women's movements and their opponents. Exploration of changing notions of masculinity and femininity. Same course as HIST 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 4593 America in International Perspective (H)
Prerequisites: HIST 1103 or lower-division survey course in U.S. History, any period.
Description: A transnational interpretation of American history from the colonial era to the present day. Uses a variety of interdisciplinary sources to place the history of the United States within a comparative, global framework. Same course as HIST 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 4910 American Period Seminar
Description: In-depth study of a particular period or era in American historical experience. Examples include The Ragtime Era, The Jazz Age, The Great Depression, The Postwar Era, The Civil Rights Movement, and Post Modern America. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4973 Senior Seminar in American Studies
Prerequisites: AMST 3223.
Description: Writing of senior thesis based on original research and its analysis and evaluation or completion of independent project based on practical community experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4990 Internship
Description: An internship opportunity which combines independent study and practical fieldwork experience focusing on a particular problem or topic related to America culture and experience. (Examples: Internship in Archival Fieldwork, Material Culture Fieldwork, Museum Management, Sound Recordings and Native American Heritage Site). Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

Animal Science (ANSI)

ANSI 1021 Introduction to the Animal Sciences Lab
Prerequisites: Concurrent enrollment in ANSI 1023.
Description: Laboratory to accompany ANSI 1023 - species adaptability, product standards and requirements areas and types of production, processing and distribution of products, includes meat animals, dairy and poultry.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 1023 Introduction to the Animal Sciences
Prerequisites: Concurrent enrollment in ANSI 1021.
Description: Species adaptability, product standards and requirements areas and types of production, processing and distribution of productions, includes meat animals, dairy and poultry. Previously offered as ANSI 1124.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 1124 Introduction to the Animal Sciences
Description: Species adaptability, product standards and requirements, areas and types of production, processing and distribution of products, includes meat animals, dairy and poultry.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 1401 Equine Behavior and Handling
Description: Equine management techniques - understanding equine behavior and anatomy. Basic equine handling, management principles, hoof care, dental care, first aid and wound care. Introduction to behavior and training of the horse, techniques of safe handling based on the principles of equine behavior.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 2111 Animal and Food Science Professional Development
Description: Student development through study of career goals specific to animal or food science, eventual career development through resume building, internships, and networking. Previously offered as ANSI 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2112 Live Animal Evaluation
Prerequisites: ANSI 1124.
Description: Using tools for selection including performance records, pedigree information and visual appraisal, in the evaluation of cattle, swine, sheep, horses and poultry.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 2123 Livestock Feeding
Description: Nutrients and their functions, nutrient requirements of the various classes of livestock; composition and classification of feed stuffs and ration formulation. Not required of animal science majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2233 The Meat We Eat
Description: Overview of all animal, poultry, and fish protein sources used for human consumption, but focusing on red meat. Examination of each phase of production, inspection, safety, grading, processing, preparation, and current issues of the industries. Development of an understanding of the importance of meat in the diet and part of global agriculture. Same course as FDSC 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2253 Meat Animal and Carcass Evaluation
Description: Evaluation of carcasses and wholesale cuts of beef, pork, and lamb. Factors influencing grades, yields and values in cattle, swine and sheep. Same course as FDSC 2253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences
General Education and other Course Attributes: Honors Credit

ANSI 3123 Livestock Health and Diseases
Prerequisites: ANSI 1124.
Description: Diseases of farm animals, both infectious and noninfectious, parasites, parasitic diseases, and the establishment of immunity through the use of biological products, prevention and/or treatment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3212 Advanced Dairy Cattle Evaluation
Description: Advanced evaluation of type traits as they relate to longevity and profitability in the dairy cow.
Credit hours: 2
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3222 Advanced Equine Evaluation
Description: Advanced evaluation of halter and performance horses. Includes both Western and English disciplines.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3232 Advanced Meat Evaluation
Description: Advanced evaluation of carcasses and wholesale cuts of beef, pork and lamb. Same course as FDSC 3232.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3242 Advanced Livestock Evaluation
Prerequisites: ANSI 2112.
Description: Advanced evaluation of beef cattle, sheep, and swine.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3252 Advanced Wool Evaluation
Description: Advanced instruction in wool grading.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3310 Advanced Competitive Evaluation
Prerequisites: Consent of instructor.
Description: Advanced instruction in animal and/or product evaluation. For students competing on collegiate judging teams. Same course as FDSC 3310. Offered for fixed credit, 2 credit hours, maximum of 6 credit hours.
Credit hours: 2
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Clinical
Department/School: Animal & Food Sciences

ANSI 3312 Advanced Meat Animal Evaluation
Description: Advanced evaluation and pricing of meat animals. For students competing on the Meat Animal Evaluation Team.
Credit hours: 2
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3322 Applied Meat Animal Selection
Prerequisites: ANSI 3310 and consent of instructor.
Description: Applied selection of meat animals using principles of genetics, animal breeding, and phenotypic evaluation in real world selection scenarios to predict the value of breeding and market livestock.
Credit hours: 2
Contact hours: Contact: 6 Other: 6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3333 Meat Science
Description: Anatomical and basic chemical and physical characteristics of meat animals studied. The application of scientific principles to the processing and economical utilization of meat animals, as well as in the manufacture of meat products emphasized in the laboratory. Same course as FDSC 3333. May not be used for degree credit with ANSI 5433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3402 Equine Training Methods
Description: Basic techniques of equine training. Performance of various maneuvers including halter breaking, saddling, longing, driving, and riding. Course previously offered as ANSI 3202.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3410 Peer-Led Team Learning in Animal Science
Prerequisites: Consent of instructor.
Description: Selected undergraduate students work as peer leaders for learning teams for Animal Science courses. Development of oral and written communication skills of technical concepts in animal science. Duties include meeting regularly with discussion and laboratory sessions, participating in instructional activities and evaluating class performance. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Lab 1-5.
Credit hours: 1-6
Contact hours: Lecture: 1 Lab: 2-10 Contact: 3-11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3414 Form and Function of Livestock and Poultry
Prerequisites: ANSI 1124 and BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Form and function of livestock and poultry. Major systems (muscle, skeletal, neural, endocrine, cardiovascular, respiratory and gastrointestinal) with emphasis on comparative anatomy and integrated function related to livestock in agricultural production systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3420 Undergraduate Research in Animal and Food Science
Description: Designed for students participating in undergraduate research in Animal and Food Sciences. Students actively participate in research methodologies, including foundational research theories and protocols. Previously offered as ANSI 1223. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3423 Animal Genetics
Prerequisites: Undergraduate level BIOL 1114 or (BIOL 1113 and BIOL 1111), minimum grade of C.
Description: The basic principles of heredity including: kinds of gene action, random segregation, independent assortment, physical and chemical basis of heredity, mutations, sex-linkage, chromosome mapping, multiple alleles and chromosomal abnormalities. Also a brief introduction to quantitative inheritance and population genetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3433 Animal Breeding
Prerequisites: ANSI 3423.
Description: The application of genetic principles to livestock improvement; study of the genetic basis of selection and systems of mating; development of breeding programs based on principles of population genetics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3444 Animal Reproduction
Prerequisites: Introductory biology.
Description: Physiological processes of reproduction in farm animals including male and female anatomy, gonad function, endocrine relationships, fertility, and factors affecting reproduction efficiency. In the laboratory, emphasis on artificial insemination, estrous synchronization, embryo production via multiple ovulation embryo transfer (MOET) and in vitro fertilization (IVF), cryopreservation of gametes or embryos, and pregnancy determination. Previously offered as ANSI 3443.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3453 Canine and Feline Genetics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Overview of fundamental genetic principles and the control of genetic variation in coat color, various disorders and other inherited feline and canine characteristics. Inherited conditions, the underlying genetic mutation if known, genomic technologies used to identify the mutations if unknown, and development of genetic tools to assist in canine and feline genetic testing and selection programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3463 Equine Genetics
Description: Basic Mendelian genetics with direct application to horses. Genetic principles and inheritance of particular equine characteristics and common genetic disorders.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3533 Equine Management and Production
Description: Current topics and trends in the horse industry. Basic principles of equine nutrition, reproduction, marketing, exercise physiology, health care, coat-color genetics, behavior and welfare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3543 Principles of Animal Nutrition
Prerequisites: CHEM 1215 or equivalent.
Description: Basic principles of animal nutrition including digestion, absorption, and metabolism of the various food nutrients; characteristics of the nutrients; measure of body needs; ration formulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3623 Livestock Behavior and Environmental Interactions
Prerequisites: ANSI 1124.
Description: Animal behavior and animal-environment interactions related to health, productivity, and overall well-being of food animals. Concepts to improve housing accommodations, management strategies for animals to improve animal and human well-being and to use behavior as a tool for assessing welfare and improving human-animal interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3633 Equine Sales Preparation
Description: Discussion and application of equine behavior modification and training techniques. Sale preparation, marketing techniques. Students will be responsible for completing safe and successful groundwork and riding of an OSU 2-year-old. Riding experience required.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3643 Equine Breeding and Foaling
Description: Discussion and application of current management practices in horse reproduction. Breeding methods and foaling procedures, safety and biosecurity, health and nutrition, reproductive anatomy and hormones, behavior and handling.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3651 Applied Animal Nutrition Lab
Prerequisites: ANSI 3543 and ANSI 3653 (or concurrent enrollment in ANSI 3653).
Description: Basic nutritional calculations and ration formulation for various classes of livestock; Formulation of rations and supplements to meet specific requirements using spreadsheet based formulators.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3653 Applied Animal Nutrition
Prerequisites: ANSI 3543.
Description: Composition, characteristics, and nutritive value of feeds and feed additives; feed labeling and regulation; qualitative and quantitative nutrient requirements of various classes of livestock; theory of feeding and supplementing various classes of livestock to meet specific nutrient requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3703 Animal Management Techniques
Description: Animal handling and management practices. Basic husbandry procedures for domestic animals in farm, ranch, and/or other production settings or environments. Emphasis on practical handling, restraint, health evaluation, medication and treatment practices.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3753 Basic Nutrition for Pets
Description: Nutrients, nutrient requirements, feeding practices, food sources, and diet management for pets and companion animals as well as exotic animals and birds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3903 Agricultural Animals of the World (G)
Description: The production and utilization of agricultural animals by human societies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences
General Education and other Course Attributes: International Dimension

ANSI 4023 Poultry Science
Prerequisites: ANSI 1124 or (ANSI 1023 and ANSI 1021) and ANSI 3543.
Description: Application of poultry physiology to the management and production of commercial broilers, layers, and turkeys using a science-based approach to evaluate industry practices, compare economic factors, and welfare standards between breeds and housing systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4132 Welfare Assessment and Audit of Farm Animals
Prerequisites: ANSI 3623.
Description: Reliable, science-based, on-farm and slaughter welfare assessment systems for cattle, pigs and poultry as well as a methodology to convey welfare measures into understandable product information.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4203 Rangeland and Pasture Utilization
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. Same course as NREM 4603. May not be used for Degree Credit with ANSI 5203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture and fiber characteristics.Same course as FDSC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4333 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. Same course as FDSC 4333. May not be used for Degree Credit with ANSI 5833.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4423 Horse Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Current concepts and production principles related to the horse industry including nutrition, reproduction, herd health, functional anatomy and implications, social behavior, and applying principles of psychology in horse management and training.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4523 Pet and Companion Animal Management
Prerequisites: ANSI 1124.
Description: Current concepts, management principles related to pet and companion animal species and their roles in society. Discussion of the human-animal bond, service animals, kennel and cattery management, anatomy, internal and external parasites, toxins, restraint and handling, reproduction, nutrition, genetics, and breeding. Previously offered as ANSI 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4543 Dairy Cattle Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Current concepts and production principles of the dairy cattle industry including value of milk products, milk marketing, physiology of lactation, reproduction, nutrition, mastitis, and housing. Analysis and active learning of dairy production systems using farm visits and field techniques laboratories. May not be used for Degree Credit with ANSI 5543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4553 Sheep Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Breeding, feeding, management, and marketing of commercial and purebred sheep. May not be used for degree credit with ANSI 5653.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4613 Beef Cow-Calf Management
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of farm and ranch land procurement and management principles with beef cattle acquisition, breeding, nutrition, reproduction, health, life cycle management, marketing, and economic analysis of the commercial cow-calf enterprise. Same course as ANSI 4612. May not be used for Degree Credit with ANSI 5813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4633 Stocker and Feedlot Cattle Management
Prerequisites: ANSI 3612, ANSI 3653.
Description: Application of scientific knowledge, management principles, and research advances to modern stocker and feedlot cattle operations. Same course as ANSI 4632. May not be used for Degree Credit with ANSI 5633.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4643 Swine Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of genetic, physiological, microbiological, nutritional, and engineering principles to the efficient production of swine. May not be used for Degree Credit with ANSI 5643.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4703 Equine Enterprise Management
Prerequisites: ANSI 3433 and ANSI 3443 and ANSI 3653.
Description: Principles of equine enterprise management including ethical and legal issues, marketing, facility management, business structures, economic analysis and careers. May not be used for Degree Credit with ANSI 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4713 Beef Seedstock Management and Sales
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Principles of beef cattle seedstock acquisition, breeding, nutrition, reproduction, health, life cycle management and economic analysis. Special emphasis on advertising, promotion, marketing and sales. Course previously offered as ANSI 4632.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4803 Animal Growth and Performance
Prerequisites: An upper-division course in animal science.
Description: Physiological and endocrine factors affecting growth and performance of domestic animals. May not be used for Degree Credit with ANSI 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4823 Animal Genomics
Prerequisites: ANSI 3423 or equivalent.
Description: Introduction to analyzing genomes of common livestock species. Understanding the theory of next generation sequencing methods, and how these are applied in the field of livestock genomics, genome resequencing, analysis of genomic variant data, annotating a genome sequence using transcriptomics and proteomics and epigenomics. An introduction to assigning function to genes and genomic regions, exposure to the principles in molecular, comparative and evolutionary genetics/genomics and the application of these principles to livestock genomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4843 Applications of Biotechnology in Animal Science
Prerequisites: ANSI 3423 and BIOC 3653.
Description: Training in current biotechniques used in protein, hormone, and molecular genetic research in food and animal science. Theory and applications of the various techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4863 Capstone for Animal Agriculture
Prerequisites: Senior standing.
Description: Examination of the role of animal agriculture in society and the importance of research and current issues. Oral and written reports.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4900 Special Problems
Prerequisites: Consent of instructor.
Description: A detailed study of an assigned problem by a student wishing additional information on a special topic. Offered for variable credit,1-6 credits, maximum or 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 4910 Animal Industry Internship
Prerequisites: Consent of instructor.
Description: Full-time internship at an approved production, processing or agribusiness unit or other agency serving animal agriculture. Maximum credit requires a six-month internship in addition to a report and final examination. Graded on a pass-fail basis. May not be used for degree credit with ANSI 5910. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 4913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. Same course as SOIL 4913, ENVR 4913. May not be used for Degree Credit with ANSI 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4973 Rangeland Resources Planning
Prerequisites: NREM 3613.
Description: Inventory or ranch resources, survey and evaluation of ranch practices, and economic analysis. Development of a comprehensive ranch management plan. Managing rangeland and ranch resources in a social context. Written and oral reports. Field trips required. Same course as NREM 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5000 Master's Research and Thesis
Prerequisites: MS degree.
Description: Independent research planned, conducted, and reported in consultation with a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5010 Special Problems
Description: Special problems in areas of animal science other than those covered by the individual graduate student as a part of his/her research and thesis program. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5102 Ethics and Professionalism in Animal and Food Science
Description: Discussion of regulations, laws, and resources; insights on complex ethical issues, including but not limited to research misconduct, how to address, report and find resources during cases of misconduct, conflicts of interest, and authorship; communication of research and accurately and objectively to different audiences. Same course as FDSC 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5110 Seminar
Description: A critical review and study of the literature; written and oral reports and discussion on select subjects. Same course as ANSI 6110. Offered for 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5113 Basic Reproductive Physiology
Prerequisites: ANSI 3443 or equivalent.
Description: Female and male reproductive processes, endocrine control of reproductive functions, and the application of reproductive physiology to animal production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5123 Functional and Molecular Endocrinology
Prerequisites: An upper division physiology course.
Description: Endocrine regulation of growth, stress, metabolism, and reproduction in domestic farm animals including commercial applications. Focus on the influence of hormones at the systemic and cellular level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5133 Reproductive Management of Cattle
Prerequisites: Graduate status
Description: Overview of reproductive management strategies for dairy and beef cattle. Hands-on training includes artificial insemination, uterine palpation for pregnancy detection, and ultrasonography to evaluate the uterus and ovarian structures.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5203 Rangeland and Pasture Utilization
Prerequisites: NREM 3613.
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. May not be used for Degree Credit with ANSI 4203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture and fiber characteristics. Same course as FDSC 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5303 Advanced Animal Breeding
Prerequisites: ANSI 3433 or equivalent and STAT 4013.
Description: Basic concepts of population genetics as related to theoretical animal breeding, including heritability, genetic correlations, selection methods, inbreeding and heterosis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5313 Marker Assisted Selection in Livestock
Prerequisites: ANSI 3433 or equivalent and STAT 4013.
Description: Use of molecular genetics information to capture variation of quantitative traits in farm animals and to enhance selection improvement programs. Discussion of current DNA based technologies, such as detecting, locating and measuring effects of quantitative trait loci (QTL), genetic markers, gene mapping methods and whole genome selection. Examination of emerging genomics technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5333 Carcass Value Estimation Systems
Prerequisites: Graduate classification.
Description: Analysis of scientific literature regarding carcass composition, quality and palatability. Overview of technology used to evaluate carcass quality factors. Same course as FDSC 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5423 Animal Stress and Environmental Physiology
Description: Interrelationship between the stress axis and other biological systems that can impact health and well-being of animals. General concepts of stress physiology, brain mechanisms, cellular pathways, and intercommunication of physiology, behavior, immunology, growth and development, reproduction/lactation, health, and disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5433 Meat Science
Description: Anatomical and basic chemical and physical characteristics of meat animals studied. The application of scientific principles to the processing and economical utilization of meat animals, as well as in the manufacture of meat products emphasized in the laboratory. Mya not be used for degree credit with ANSI 3333 and FDSC 3333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5543 Dairy Cattle Science
Prerequisites: ANSI 3433, ANSI 3443 and ANSI 3653.
Description: Current concepts and production principles of the dairy cattle industry including value of milk products, milk marketing, physiology of lactation, reproduction, nutrition, mastitis, and housing. Analysis and active learning of dairy production systems using farm visits and field techniques laboratories. May not be used for degree credit with ANSI 4543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5553 Interpreting Animal and Food Science Research
Prerequisites: STAT 5013 or concurrent enrollment.
Description: Critical evaluation and knowledgeable communication on the design, analyses, and reporting of animal science and food science research. Same course as FDSC 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5573 Techniques in Animal Molecular Biology
Prerequisites: BIOC 4113.
Description: Principles of major basic animal molecular biology techniques in gene cloning and expression. Hands-on experience with basic molecular biology techniques, including DNA cloning and quantitative measurement of mRNA and protein expression in eukaryotic cells.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5613 Advanced Beef Production
Description: Beef cattle breeding, nutrition, reproduction, health and disease prevention, life cycle management of the calf crop, as well as marketing alternatives for the producer. Farm and Ranch acquisition, management, including the stocker and/or feedlot phase.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5623 Livestock Behavior and Environmental Interaction
Description: Integrated approach to animal behavior and animal-environment interactions as it relates to health, productivity, and overall well-being to food animals. Concepts related to practical ways to improve housing accommodations, management strategies for animals that improve animal and human well-being use of behavior to assess the adaptability of animals in their environments. ANSI 5623 was used to denote Exp Methods Animal Res prior to Fall 1995. May not be used for degree credit with ANSI 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5633 Stocker and Feedlot Cattle Management
Prerequisites: ANSI 3653.
Description: Application of scientific knowledge, management principles, and research advances to modern stocker and feedlot cattle operations. May not be used for degree credit with ANSI 4633.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5643 Swine Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of genetic, physiological, microbiological, nutritional, and engineering principles to the efficient production of swine. May not be used for degree credit with ANSI 4643.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5653 Sheep Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Breeding, feeding, management, and marketing of commercial and purebred sheep. May not be used for degree credit with ANSI 4553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5703 Equine Enterprise Management
Prerequisites: ANSI 3433 and ANSI 3443 and ANSI 3653.
Description: Principles of equine enterprise management including ethical and legal issues, marketing, facility management, business structures, economic analysis and careers. May not be used for degree credit with ANSI 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5733 Advanced Ruminant Nutrition
Prerequisites: ANSI 3653.
Description: Factors influencing nutrient requirements of ruminants for maintenance, growth, reproduction and lactation, and their implications with regard to husbandry practices and nutritional management of livestock. Application of current concepts of ruminant livestock nutrition; use of microcomputer programs in diet evaluation and formulation, beef gain simulation and problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5743 Rumenology
Prerequisites: ANSI 3653 or equivalent.
Description: Physiology of development of the ruminant digestive tract; the nature of, and factors controlling digestion and absorption from the tract to include the relative nature and roles of the rumen bacteria and protozoa. Same course as ANSI 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5753 Animal Nutrition Techniques and Laboratory Methods
Prerequisites: CHEM 3015 or equivalent.
Description: Collection, handling, and processing of biological materials. Record keeping, pipetting, preparation of reagents, and conducting routine nutritional analysis. Theory of operation of major laboratory equipment. Application of current techniques to problem solving in animal nutrition research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5763 Advanced Nonruminant Nutrition
Prerequisites: BIOC 3653.
Description: An in-depth study of the digestion, absorption, and metabolism of nutrients in nonruminant domesticated farm animals. Unique metabolic characteristics of nonruminant species contrasted with ruminant animals. Fundamentals of energetics as related to animal performance. Same course as ANSI 5762.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5773 Protein Nutrition
Prerequisites: BIOC 3653.
Description: Nutritional, biochemical and clinical aspects of protein metabolism as it relates to nutritional status. Same course as ANSI 5772.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5783 Vitamin and Mineral Nutrition
Prerequisites: BIOC 5753.
Description: Development of the concept of dietary essential minerals and vitamins. Individual minerals and vitamins discussed for animal species from the standpoint of chemical form, availability, requirements, biochemical systems, deficiencies and excesses and estimation in foods and feed. Same course as ANSI 5782.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5803 Animal Growth and Performance
Prerequisites: An upper-division course in animal science.
Description: Physiological and endocrine factors affecting growth and performance of domestic animals. May not be used for degree credit with ANSI 4803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5813 Beef Cow-Calf Management
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of farm and ranch land procurement and management principles with beef cattle acquisition, breeding, nutrition, reproduction, health, life cycle management, marketing, and economic analysis of the commercial cow-calf enterprise. May not be used for Degree Credit with ANSI 4613.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5823 Animal Genomics
Prerequisites: ANSI 3423 or equivalent.
Description: Introduction to analyzing genomes of common livestock species. Understanding the theory of next generation sequencing methods, and how these are applied in the field of livestock genomics, genome resequencing, analysis of genomic variant data, annotating a genome sequence using transcriptomics and proteomics and epigenomics. An introduction to assigning function to genes and genomic regions, exposure to the principles in molecular, comparative and evolutionary genetics/genomics and the application of these principles to livestock genomics. Same course as ANSI 4823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5833 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. May not be used for degree credit with ANSI 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5910 Animal Industry Internship
Prerequisites: Consent of instructor.
Description: Full-time internship at an approved production, processing or agribusiness unit or other agency serving animal agriculture. Maximum credit requires a six-month internship in addition to a report and final examination. Graded on a pass-fail basis. May not be used for degree credit with ANSI 4910. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. May not be used for degree credit with ANSI 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 6000 Doctoral Research and Dissertation
Prerequisites: MS degree.
Description: Independent research planned, conducted and reported in consultation with, and under the direction of, a major professor. Open only to students continuing beyond the level of the MS degree. Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 6010 Special Topics in Animal Breeding
Prerequisites: Consent of instructor.
Description: Advanced topics and new developments in animal breeding and population genetics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 6110 Seminar
Description: A critical analysis of the objectives and methods of research in the area of animal science. Review of the literature, written and oral reports and discussion on select topics. Same course as ANSI 5110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

Anthropology (ANTH)

ANTH 1353 Introduction to Anthropology (S)
Description: Explores the holistic dimensions of anthropology by introducing the four fields that comprise the discipline: cultural anthropology, linguistics, archaeology, and biological anthropology. Examines the content of each field and their collective contribution to the understanding of humanity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 2353 Introduction to Biological Anthropology (N)
Description: Introduction to human biological evolution, including genetics, paleoanthropology, primatology, and osteology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Natural Science Reasoning

ANTH 2883 Introduction to Archaeology (S)
Description: A general introduction to the methods of study of archaeology. Understanding the development of prehistoric cultures as adaptive responses to changing natural and social environments from early Paleolithic to emergence of urban civilizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 3353 Cultural Anthropology (GS)
Description: Introduction to culture, various subdisciplines of cultural anthropology, anthropological concepts, and capsule ethnographies of assorted ethnic groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ANTH 3443 Peoples of Mesoamerica (GS)
Description: Modern indigenous peoples of Mexico and Central America. Examination of contemporary communities and modern social and cultural practices understood from a historical perspective, leading to an appreciation of regional similarities and diversity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ANTH 3990 Fieldwork in Anthropology
Prerequisites: Consent of instructor.
Description: Instruction through ethnographic or archaeological field techniques by participation in a field program. Topics subject to change from year to year depending upon the type of field program offered or available. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Lecture: 1-8 Contact: 1-8
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

ANTH 4123 Archaeology of North America (S)
Description: Factors influencing the initial peopling of North America, the spread and diversification of hunting and gathering economies, the rise of agricultural systems and emergence of extensive and complex political units.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 4223 The Aztec Empire (H)
Description: Society and Culture of the Aztecs of Mesoamerica. Overview of preceding civilizations, analysis of imperial strategies, social organization, religion, and other topics culminating in the Spanish conquest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Human Heritage & Cultures

ANTH 4443 Oklahoma Archeology (S)
Description: Surveys social and cultural development of Native peoples of Oklahoma from Paleoindian hunting adaptations to villagers encountered by early Europeans. Using archaeological investigations examines diversity of social and cultural adaptations to various environments of Oklahoma, including development of complex societies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 4990 Special Topics in Anthropology
Prerequisites: Consent of instructor.
Description: Directed readings or research on significant topics in anthropology. May not be used for degree credit with ANTH 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology

ANTH 5243 Globalization and Culture
Prerequisites: Admission to Graduate College and International Studies.
Description: Critical assessment of 20th century social scientific theories of development culminating in current theories of globalization. Exploration of capitalism's antecedents, origin, and proliferation. Evaluation of global inequality from a cross-culture perspective. Utility of anthropological theories of culture, ideology and hegemony in assessing local responses to globalization. No credit for students with credit in INTL 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

ANTH 5990 Advanced Problems and Issues in Anthropology
Prerequisites: Consent of instructor.
Description: Directed readings or research on significant topics in anthropology. May not be used for Degree Credit with ANTH 4990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

Arabic (ARB)

ARB 1713 Elementary Arabic I
Description: Pronunciation, conversation, grammar, and reading. Includes language lab work. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ARB 1813 Elementary Arabic II
Prerequisites: ARB 1713 or equivalent proficiency.
Description: Continuation of ARB 1713. Includes language lab work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ARB 2713 Intermediate Arabic I
Prerequisites: ARB 1813 or equivalent proficiency.
Description: Further development of speaking, listening, reading, and writing skills along with short cultural and literacy readings. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ARB 2813 Intermediate Arabic II
Prerequisites: ARB 2713 or equivalent proficiency.
Description: Skill consolidation with emphasis on grammar, short readings and conversation. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ARB 3033 Advanced Arabic I
Prerequisites: ARB 2813 or equivalent proficiency.
Description: Development of conversational skills in formal and informal Arabic language; study of oral communication and idioms; vocabulary enhancement and grammar review.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ARB 3133 Advanced Arabic II
Prerequisites: ARB 2813 or equivalent proficiency.
Description: The development of all forms of written communication in Arabic through practice in writing compositions, letters, reports, and other documents in Arabic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Architecture (ARCH)

ARCH 1112 Introduction to Architecture
Description: An introduction to the professions of architecture and architectural engineering. Previously offered as ARCH 1111. Same course as UNIV 1111.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 1211 Introduction to Architectural Studies
Description: An introduction to the professions of architecture and architectural engineering. No degree credit with credit in ARCH 1112.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 1216 Architectural Design Studio I
Prerequisites: Grade of "C" or better in ARCH 1112, or consent of instructor.
Description: Architectural graphics and design fundamentals. Students progressing in the Physics 1114/2014 and MATH 2144 course sequence will be given preference in enrollment. Additionally, students who have not received a grade for ARCH 1216 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture advisor.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2003 Architecture and Society (GH)
Description: Design, planning, and building considered in their social and aesthetic contexts. Some sections may be restricted to Architectural Engineering majors, see course offerings. May not be used for degree credit with ARCH 2183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ARCH 2100 Architectural Studies
Description: Beginning studies in graphics and design in architecture. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 2116 Architectural Design Studio II
Prerequisites: Grade of "C" or better in ARCH 1216.
Description: Students who have not received a grade for ARCH 2116 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture adviser. Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2183 History and Theory of Architecture I
Description: History and theory of global architecture prior to the year 1400 CE. May not be used for degree credit with ARCH 2003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2203 History and Theory of Architecture Since 1900
Prerequisites: ARCH 2003. Grade of "C" or better.
Description: History and theory of world architecture in the 20th century and beyond. May not be used for degree credit with ARCH 2283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2216 Architectural Design Studio III
Prerequisites: Grade of "C" or better in ARCH 1216 and ARCH 2116. Students who have not received a grade for ARCH 2216 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture adviser.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2252 Design Communication I: Visual and Graphic Acuity
Prerequisites: Co-requisite enrollment in ARCH 2116 or permission of instructor.
Description: Introduction to the communication strategies unique to the professions of architecture and architectural engineering.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2263 Building Systems
Prerequisites: Grade of "C" or better in ARCH 1216 and ARCH 2116.
Description: Architectural, structural, and environmental control systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2283 History and Theory of Architecture II (H)
Description: A study of mankind's accomplishments exhibited in architecture from the renaissance to the present day. May not be used for degree credit with ARCH 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 2890 Honors for Topics in Architecture
Prerequisites: Honors student standing.
Description: Honors Topics course to be used as an Add on for students concurrently enrolled in other ARCH courses, or can be used as a stand-alone course. Enrichment experiences to enhance the understanding of Architectural design. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Honors Credit

ARCH 3033 Design Methods
Prerequisites: ARCH 2216 or permission of instructor.
Description: Investigations in design problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3043 Structural Loadings in Architecture
Prerequisites: "C" or better in ENSC 2143, and/or co-requisite enrollment in ARCH 3143.
Description: An exploration of types of loadings and their application in the design of building structures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3083 History and Theory of Renaissance and Baroque Architecture (H)
Prerequisites: ARCH 2003. Grade of "C" or better. Or ARCH 2283. Grade of "C" or better.
Description: History and theory of Renaissance and Baroque architecture in the western world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 3100 Special Topics in Architecture
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 3116 Architectural Design Studio IV
Prerequisites: Grade of "C" or better in ARCH 2216 and admission to Professional School.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3143 Structures: Analysis I
Prerequisites: Grade of "C" or better in ENSC 2143.
Description: Structural theory for applications in architecture. Previously offered as ARCH 3243.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3163 Architectural Science I: Thermal Systems and Life Safety for Architects
Prerequisites: Admission to Professional School, or permission of instructor.
Description: A survey of the scientific and design fundamentals of thermal comfort, building physics, building performance and energy concerns, and mechanical systems for buildings as well as the basic principles of life safety. May not be used for degree credit with ARCH 4134 or ARCH 4163. Previously offered as ARCH 3134.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3173 History and Theory of American Architecture
Prerequisites: ARCH 2003. Grade of "C" or better. Or ARCH 2283. Grade of "C" or better.
Description: History and theory of American architecture from the colonial period to the present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3216 Architectural Design Studio V
Prerequisites: Grade of "C" or better in ARCH 3116.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3223 Structures: Timbers
Prerequisites: Grade of "C" or better in ARCH 3323.
Description: Analysis and design of timber structures used in architecture.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3224 Structures: Steel II
Prerequisites: Grade of "C" or better in ARCH 3323 and ARCH 3143.
Description: Design and analysis of multi-story steel frames, trusses, arches, and other architectural structure components. Previously offered as ARCH 4244 and ARCH 4144.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3252 Computer Applications in Architecture I
Prerequisites: Grade of C or better in ARCH 2116, and concurrent enrollment in ARCH 2216.
Description: Introduction to 2D and 3D computer topics and their application in the design process. No credit for students with credit in ARCH 3253.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3262 Design Communication II: Advanced Digital Applications
Prerequisites: Grade of "C" or better in ARCH 2252 or ENGR 1412.
Description: State-of-the-art applications of computers to the practice of architecture and architectural engineering. Previously offered as ARCH 4053.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3263 Materials In Architecture
Prerequisites: Grade of "C" or better in ARCH 2263 and admission to Professional School.
Description: Introduction to the basic materials used in the construction of architecture and how such materials affect both the design and implementation of the systems that incorporate these materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3273 History and Theory of Medieval Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2183, Grade of "C" or better. Or consent of instructor.
Description: History and theory of the architecture created between the 8th and 15th centuries in Europe, and its impact on the subsequent religious architecture of today.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3323 Structures: Steel I
Prerequisites: Grade of "C" or better in ENSC 2113 and admission to the Professional Program or permission of school head and advisor.
Description: Analysis and design of steel structures used in architecture.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3343 Structures: Steel II
Prerequisites: Grade of "C" or better in ARCH 3323 and ARCH 3043.
Description: Analysis, design, detailing and documentation of multi-story steel structures, and other structural components used in architecture applications. Previously offered as ARCH 3224.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3353 Advanced Graphics and Theory of Representation
Prerequisites: Grade of "C" or better in ARCH 2252 or consent of instructor.
Description: Manual and digital graphic techniques are explored in a project-based studio learning environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3373 Design and Diversity in Urban Centers of the US
Prerequisites: Permission of Instructor.
Description: Field study analysis of the diverse social and cultural issues evidenced through the design of architecture in major urban centers of the United States. Previously offered as ARCH 3370.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3423 Biomimicry and Architecture
Description: Introduction to principles of biomimicry and how these can be utilized to achieve innovative solutions in architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3433 Architectural Science II: Acoustics, Lighting, and Service Systems
Prerequisites: MATH 2144, Grade of "C" or better.
Description: A survey of scientific and design fundamentals of architectural acoustics, lighting, electrical, and signal, conveying, and plumbing systems for buildings. May not be used for degree credit with ARCH 4433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3473 History and Theory of Structures in Architecture (H)
Prerequisites: "C" or better in ARCH 2003 or ARCH 2183 or ARCH 2283.
Description: A study of the language of structural systems as manifested in architecture through the ages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4073 History and Theory of Early Modern Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of modern architecture in the western world from the industrial revolution to the early twentieth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4093 Architectural Project Management
Prerequisites: Concurrent enrollment in ARCH 4216 or ARCH 5226 or consent of instructor.
Description: Principles of management as applied to architectural and architectural engineering projects. Previously offered as ARCH 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4100 Special Topics in Architecture
Prerequisites: Consent of instructor and head of the school.
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 4116 Design Studio VI
Prerequisites: Grade of "C" or better in ARCH 3216 and ARCH 3262.
Description: Problems in architectural design. Previously offered as ARCH 4517.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4123 Structures: Concrete I
Prerequisites: Grade of "C" or better in ARCH 3323.
Description: Analysis and design applications in architectural problems using concrete structures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4131 Architectural Science Lab
Prerequisites: Enrollment by permission of instructor or academic advisor; senior standing.
Description: Laboratory experiments for building systems. Systems may include heating, cooling, electrical, lighting, acoustics and plumbing.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4143 Structures: Foundations for Buildings
Prerequisites: Grade of "C" or better in ARCH 4123.
Description: Subsurface soil conditions and design of foundation systems and retaining walls for buildings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4163 Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers
Prerequisites: Admission to Professional School, or permission of instructor.
Description: A survey of the scientific and design fundamentals of thermal comfort, building physics, building performance and energy concerns, and mechanical systems for buildings, as well as the basic principles of life safety. May not be used for degree credit with ARCH 3134, ARCH 4134, or ARCH 3163. Previously offered as ARCH 4134.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4173 History and Theory of Skyscraper Design (H)
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of the development of the skyscraper in the USA from the late 19th century to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4183 History and Theory of Architecture: Cities
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: The development of cities as an aspect of architecture from ancient times to the twentieth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4203 Experimental Design Lab
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4216 Architectural Design Studio VII
Prerequisites: Grade of "C" or better in ARCH 3163 and ARCH 3433 and ARCH 4116 and ARCH 4123.
Description: Problems in Architectural Design. May not be used for degree credit with ARCH 5226.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4224 Structures: Concrete II
Prerequisites: Grades of "C" or better in ARCH 3262, ARCH 4123, and concurrent enrollment in ARCH 4143.
Description: Design and analysis of multi-story reinforced concrete frames used in architecture applications. Previously offered as ARCH 4225.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4233 Sustainable Design in Architecture
Prerequisites: Grade of "C" or better in ARCH 3134 or ARCH 3163 or ARCH 4163.
Description: Sustainability topics and their application to architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4263 Architecture Seminar
Prerequisites: Co-requisite enrollment in ARCH 4216 or ARCH 5226, or permission of instructor.
Description: Topics in architecture and architectural engineering. May not be used for degree credit with ARCH 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4273 History and Theory of Islamic Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2183, Grade of "C" or better.
Description: Architecture of the Islamic World.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4283 Architecture of Asia
Prerequisites: ARCH 2003 Architecture and Society.
Description: History and theory of the architecture of Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4293 The Ethics of the Built Environment (H)
Prerequisites: Admission to the professional program or consent of instructor.
Description: Analysis of basic values that determine the form of the built environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4343 Structures: Concrete II
Prerequisites: Grade of "C" or better in ARCH 3262 and ARCH 4123.
Description: Analysis, design, detailing and documentation of multi-story reinforced concrete structures, and other structural components used in architecture applications. Previously offered as ARCH 4224.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4353 Computational Foundations
Description: The use of advanced 3D digital design tools for architectural applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4373 Field Study in Europe I
Prerequisites: Senior standing in architecture or consent of instructor.
Description: On-site analysis and study of European architecture, culture, and urban design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4374 International Field Study (GH)
Prerequisites: Admission to Professional Program in Architecture or Architectural Engineering or approval of instructor and head of school.
Description: On-site analysis and study of international architecture, culture and urban design.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ARCH 4383 History and Theory of Modern Architecture in Italy
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of the progressive experimental architecture created in Italy in the Modern era amidst the cultural, economic, and political realities of 1909-1943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4433 Architectural Science II: Acoustics, Lighting, and Service Systems for Architectural Engineers
Prerequisites: MATH 2144, Grade of "C" or better.
Description: Engineering fundamentals of architectural acoustics, lighting, electrical, and signal, conveying, and plumbing systems for buildings. May not be used for degree credit with ARCH 3433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4444 Structures: Analysis II
Prerequisites: Grade of "C" or better in ARCH 3143 and ENGR 1412.
Description: Mathematical formulation of architectural structural behavior. Matrix applications, finite element, finite differences, stability considerations, and three dimensional structural modeling.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4991 Professional Development for Architects and Architectural Engineers
Prerequisites: Admission to Professional School, or permission of instructor.
Description: Professional values, culture, mentorship, and leadership development companion course to a professional experience.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5003 Integrative Design
Prerequisites: Admission to the Graduate College and the Architecture Graduate Certificate Program.
Description: Advanced Topics in Integrative Design.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 5016 Architectural Design Studio VIII
Prerequisites: Grade of "C" or better in ARCH 4216 or permission of school head or advisor.
Description: Problems in architectural design. May not be used with degree credit in ARCH 5117.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5023 Timber and Masonry Design and Analysis
Prerequisites: Grade of "C" or better or concurrent enrollment in ARCH 4123, or by permission of instructor.
Description: Analysis and design of timber and masonry structures, including code requirements, analysis techniques, design of components, and detailing of architectural engineering contract documents conforming to the relevant codes.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 5093 Real Estate Development
Prerequisites: Admission to professional program, or consent of instructor.
Description: Introduction to real estate development as a function of project conception, analysis, design and delivery. Same course as EEE 5200.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5100 Special Topics in Architecture
Prerequisites: Consent of instructor and head of the school.
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 5117 Architectural Design Studio VIII
Prerequisites: Grade of "C" or better in 4216 or permission of school head or advisor.
Description: Problems in architectural design. No credit for students with credit in ARCH 5116.
Credit hours: 7
Contact hours: Lab: 16 Contact: 16
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5133 Advanced Energy Issues in Architecture
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5143 Structures: Special Loadings
Prerequisites: Grade of "C" or better in ARCH 4444.
Description: Mathematical formulations and modeling in architectural structures. Human response to vibrations. Seismic design in building. Design for extreme winds on buildings. Approximate methods for preliminary design of architectural structures. Previously offered as ARCH 5243.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 5193 Management of Architectural Practice
Prerequisites: Fifth-year standing in architecture or architectural engineering or consent of instructor.
Description: Principles of management as applied to the private practice of architecture and architectural engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5217 Architectural Design Studio IX
Prerequisites: Grade of "C" or better in 5117 or consent of instructor.
Description: Problems in architectural design. Previously offered as ARCH 5216.
Credit hours: 7
Contact hours: Lab: 16 Contact: 16
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5226 Architectural Engineering Comprehensive Design Studio
Prerequisites: Grade of "C" or better in ARCH 4143, ARCH 4163, ARCH 4433, and ARCH 5023.
Description: Problems in architectural and architectural engineering design. May not be used for degree credit with ARCH 4216.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5263 Advanced Architecture Technology Seminar
Prerequisites: Concurrent enrollment in ARCH 4216 or ARCH 5226, or permission of instructor.
Description: Advanced topics in technology related to the disciplines of architecture and architectural engineering. May not be used for degree credit with ARCH 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5373 Field Study in Europe II
Prerequisites: Senior standing in architecture or consent of instructor
Description: On-site analysis and study of European architecture, culture and urban design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5493 Entrepreneurship and Architecture
Prerequisites: Senior standing.
Description: Introduction to entrepreneurship within the context of architecture, with direct application to architectural services, activities, and products. Emphasis on implementing the entrepreneurial process in starting and sustaining new ventures that significantly shape the built environment. Same course as EEE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6000 Special Problems
Prerequisites: Consent of instructor and head of school.
Description: Theory, research or design investigation in specific areas of study in the field of architecture and its related disciplines. Plan of study determined jointly by student and graduate faculty. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 6083 History and Theory of Contemporary Architecture
Prerequisites: Graduate standing or consent of instructor
Description: American architecture beginning in the 16th century through the 20th century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6113 Creative Component Research
Prerequisites: Admission to graduate program.
Description: Data gathering, analysis and program formulation related to creative component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6117 Graduate Design Studio
Prerequisites: Admission to graduate program.
Description: Problems in architectural design.
Credit hours: 7
Contact hours: Lab: 14 Contact: 14
Levels: Graduate
Schedule types: Lab
Department/School: Architecture

ARCH 6203 Creative Component in Architectural Engineering
Description: A design project based on a program previously developed by the student, to include a written report and supporting documents when appropriate. Must be approved by the project advisor and completed in the final semester of the graduate program.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Architecture

ARCH 6207 Creative Component in Architecture
Prerequisites: ARCH 6117.
Description: A design project based on a program previously developed by the student to include a written report and supportive documents when appropriate. Must be approved by the project adviser and completed in the final semester of the graduate program.
Credit hours: 7
Contact hours: Contact: 7 Other: 7
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 6243 Structures: Analysis III
Prerequisites: Grade of "C" or better in ARCH 4444 and admission to the graduate program.
Description: Analysis techniques for architectural structures including stability, space frames, computer applications, guyed towers and project research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 6343 Structures: Steel III
Prerequisites: Grade of "C" or better in ARCH 3343, or by permission of instructor.
Description: Advanced topics in structural steel design, and steel connection design and detailing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6543 Structures: Concrete III
Prerequisites: Grade of C or better in ARCH 4224.
Description: Design of prestressed concrete structures, including pre- and post-tensioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

Art (ART)

ART 1103 Drawing I
Description: A freehand drawing experience designed to build basic skills and awareness of visual relationships. A sequence of problems dealing with composition, shape, volume, value, line, gesture, texture and perspective. A variety of media explored.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1113 Drawing II
Prerequisites: ART 1103.
Description: Objective and subjective approaches to visual problem solving in a variety of black and white and color media. The analysis and manipulation of form, light, space, volume, and the formal aspects of perspective.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1203 Visual Thinking: Image and Surface
Description: Investigation of fundamental design principles and visual elements through the process of image making. Students explore the dynamics of composition through developing approaches to aesthetics, visual analysis, perception and narrative. Provides experience with a variety of two-dimensional media and develops core skills in observation, craft and technique. Emphasis is placed on interdisciplinary learning through lectures, discussions, critiques, and the process of making images.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1303 Visual Thinking: Form and Space
Description: Investigation of fundamental design principles of form through the process of object making. Students explore concepts of interaction between form, space and movement through developing approaches to the construction and manipulation of materials. Provides experience with a variety of three-dimensional media and develops skills in observation, craft and technique. Emphasis is placed on interdisciplinary learning through lectures, discussions, critiques, and the process of making objects. Course previously offered as ART 2203.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1503 Art History Survey to 1400 (H)
Description: Introduction to the history of art, from the Prehistoric era to c. 1400 CE. Introduces visual arts from diverse regions and cultures. Investigates the cultural, social, religious, political, and personal contexts that surround art and architecture. Focuses on skills such as visual literacy and analysis, critical thinking, and writing about art. May be taken independently of ART 1513. Previously offered as ART 2603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 1513 Art History Survey Since 1400 (H)
Description: Part 2 of the introduction to the history of art, from c. 1400 CE to present. Introduces visual arts from diverse regions and cultures. Investigates the cultural, social, religious, political, and personal contexts that surround art and architecture. Focuses on skills such as visual literacy and analysis, critical thinking, and writing about art. May be taken independently of ART 1503. Previously offered as ART 2613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 1603 Introduction to Global Art (H)
Description: Introductory survey of global art history, with emphasis on modern and contemporary art. Intended for non-art majors. Course previously offered as ART 1803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 2003 Studio Methods and Preparation
Description: Portfolio concept development including idea generation, sketchbook, analyzing and evaluating art criticism and select contemporary artists. Professional portfolio presentation, including matting, artwork documentation and resume as a precursor to the Sophomore review. Course previously offered as ART 2002.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2013 Non-Major Ceramics I
Description: Introduction to basic building techniques including wheel throwing, coiling, and slab construction, as well as slip and glaze application and a variety of firing processes. Exposure to historical and contemporary references. Emphasis on personal growth through technique and concept. Same course as ART 2253.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2023 Non-Major Oil Painting I
Description: The development of skills in oil painting stressing form and content, visual perception, and individual expression. Technical instruction applicable to individual problems and needs. Same course as ART 2223.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2033 Non-Major Watercolor I
Description: The development of technical skills stressing color, form, and content. Assignments cover paper preparation and support, brush handling, pigment characteristics and mixing, and all basic dry surface and wet surface painting techniques. Same course as ART 2233.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2043 Non-Major Jewelry and Metals I
Description: Fabrication and forming techniques for non-ferrous metals. Cold joinery, silver soldering, surface treatment and elementary stone setting. Applications toward either wearable or small scale sculptural format. Same course as ART 2243.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2063 Non-Major Sculpture I
Description: Explore creative expression while learning a variety of sculptural processes and techniques. Begin developing spatial sensitivity, conceptual thinking, and critical thinking through engaging with broad contemporary art themes. Same course as ART 2263.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2073 Non-Major Printmaking I
Description: Varied print processes, including monotypes, relief printmaking, and intaglio. Fundamental techniques of each medium that include inking, printing, editioning multiples, and both additive and subtractive approaches. Same course as ART 2273.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2093 Non-Major Photography I
Description: An introduction to the use of photography as an art form. Exploration of traditional and current photographic methods with an emphasis on creating a foundational understanding of the medium's core concepts and techniques. Students will shoot, process, and print their own images, which will be discussed in critique with reference to basic photographic theory. Previously offered as ART 2803. Same course as ART 2293.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2113 Life Drawing
Prerequisites: ART 1113.
Description: Introduction to life drawing with emphasis on preliminary linear construction and structural aspects of the figure, including the study of general body proportions, rapid visualization, and figure-ground relationships.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2223 Oil Painting I
Prerequisites: ART 1113 and ART 1203 and ART 1303, or consent of instructor.
Description: The development of skills in oil painting stressing form and content, visual perception, and individual expression. Technical instruction applicable to individual problems and needs. Previously offered as ART 3123. Same course as ART 2023.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2233 Watercolor I
Prerequisites: ART 1113 , ART 1203 , ART 1303 , or consent of instructor.
Description: The development of technical skills stressing color, form, and content. Assignments cover paper preparation and support, brush handling, pigment characteristics and mixing, and all basic dry surface and wet surface painting techniques. Previously offered as ART 3133. Same course as ART 2033.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2243 Jewelry and Metals I
Prerequisites: ART 1113, ART 1303; consent of instructor.
Description: Fabrication and forming techniques for non-ferrous metals. Cold joinery, silver soldering, surface treatment and elementary stone setting. Applications toward either wearable or small scale sculptural format. Previously offered as ART 3343. Same course as ART 2043.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2253 Ceramics I
Prerequisites: ART 1113, ART 1303, or consent of instructor.
Description: Introduction to basic building techniques including wheel throwing, coiling, and slab construction, as well as slip and glaze application and a variety of firing processes. Exposure to historical and contemporary references. Emphasis on personal growth through technique and concept. Previously offered as ART 3503. Same course as ART 2013.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2263 Sculpture I
Prerequisites: ART 1113, ART 1303.
Description: Explore creative expression while learning a variety of sculptural processes and techniques. Begin developing spatial sensitivity, conceptual thinking, and critical thinking through engaging with broad contemporary art themes. Previously offered as ART 3323. Same course as ART 2063.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2273 Printmaking I
Prerequisites: ART 1113, ART 1203, ART 1303, or consent of instructor.
Description: Varied print processes, including monotypes, relief printmaking, and intaglio. Fundamental techniques of each medium that include inking, printing, editioning multiples, and both additive and subtractive approaches. Same course as ART 2073.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2283 Studio Art Digital Survey
Prerequisites: ART 1103 and ART 1303 and ART 1203 or ART 2423 and ART 2413 or by consent of instructor.
Description: This studio art course is an introduction to concepts, tools and techniques related to digital technology. Students will work specifically with digital video, sound editing, digital photography, digital imaging and printing. Projects in the course will focus on fostering an introductory to intermediate level understanding of digital technologies and formats, while allowing more advanced students to incorporate media of personal interest, such as performance, assemblage, projection, and installation, as well as other hybrid and emerging art forms.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2293 Photography I
Prerequisites: ART 1103, ART 1203 and ART 1303, or consent of instructor.
Description: An introduction to the use of photography as an art form. Exploration of traditional and current photographic methods with an emphasis on creating a foundational understanding of the medium's core concepts and techniques. Students will shoot, process, and print their own images, which will be discussed in critique with reference to basic photographic theory.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2403 Illustration I
Prerequisites: ART 1113 and 2.75 graduation/retention GPA.
Description: Introduction to historic and contemporary illustration and consideration of a wide range of illustrative styles. Required experiments with media and consideration of alternate ways of illustrating a message through conceptual and compositional variations.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2413 Typography I
Prerequisites: ART 1103 and 2.75 graduation/retention GPA.
Description: An investigation of letter forms and their characteristics and a study of spacing, leading, type selection, layout alternatives, type specification, and copy fitting. Preliminary introduction to typography as a communication medium. An understanding of typographic terminology and measuring systems while developing hand skills and introducing computer technology.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2423 Graphic Design I
Prerequisites: ART 1103 and 2.75 graduation/retention GPA.
Description: Exploration of basic design principles—line, form, and color, as visual communication. Problem solving, generation of ideas, development of concepts, and the integration of word and image. Technical and presentation skills.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2563 American Social Dance and Visual Culture
Description: This introductory course offers a beginning-level survey of the cultural history of social dance in North America from the eighteenth century to the present. It combines study of the history, theory, and visual/material culture of social dance with physical practice of specific dance forms. Because few comprehensive written sources exist for social dance, visual art, including film, animation, paintings, sculpture, photography, and illustration, is a vital tool for understanding historic dance and its role in American society. Over the course of the semester, we will examine the visual culture of social dance in order to gain insight into its historical functions as a tool for social cohesion, intercultural exchange, protest/activism, and identity formation, among other things. Through the practice of these dance forms, we will add an experiential component to our analysis of the roles that social dance has played in American culture over time. Same course as DANC 2563.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Art

ART 2573 Art History Sophomore Seminar
Description: Designed specifically for art history majors, and typically taken during the sophomore year, this course covers fundamentals of research and writing. Course will also examine select critical theories and their methodological application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 2890 Art History Honors Add-on
Prerequisites: Consent from the art department.
Description: A guided reading and research program ending with an honors credit under the direction of a faculty member. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 3110 Life Drawing Studio
Prerequisites: ART 2113 or consent of instructor.
Description: The development of formal and expressive aspects of drawing by direct observation of the figure and its environment. Emphasis on media experimentation, aesthetic considerations, personal concepts, and anatomy. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3213 Public and Installation Art
Prerequisites: ART 1303 or permission of instructor.
Description: Intermediate level course that offers students the opportunity to explore mixed media and multi-media art production through site-sensitive and site specific projects. Lectures will include contemporary and historical examples. Students will have access to a tool shop with instruction and assistance provided. Projects are designed and created for sites outside of the classroom, allowing for individual exploration based upon interests.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Art

ART 3223 Oil Painting II
Prerequisites: "C" or better in ART 2223 or ART 2023 or consent of instructor.
Description: Oil Painting with emphasis on personal development of visual ideas and techniques.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3233 Watercolor II
Prerequisites: "C" or better in ART 2233 or ART 2033 or consent of instructor.
Description: Stresses continued growth of technical skills with an emphasis on the individual development of ideas and imagery.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3243 Jewelry And Metals II
Prerequisites: ART 2243 or ART 2043 or consent of instructor.
Description: Development of technical skills and ideas through assigned projects. Metalworking processes include casting, advanced stone setting, hinge making, and forming of metal.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3253 Ceramics II
Prerequisites: "C" or better in ART 2253 or ART 2013 or consent of instructor.
Description: Focus on either hand building or throwing techniques. Development of personal expression and technical proficiency with the material and advanced firing and glazing processes. Emphasizing contemporary ceramic issues as well as broader art concepts.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3263 Sculpture II
Prerequisites: "C" or better in ART 2263 or ART 2063 or consent of instructor.
Description: Builds on the themes, processes, and materials explored in Sculpture I. Coursework fosters experimentation to allow discovering artistic values through course projects while advancing spatial sensitivity, conceptual thinking, and critical thinking. Emphasizes historical context and contemporary art practices, allowing students to engage in critical dialogue. Previously offered as ART 3333.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3273 Printmaking II
Prerequisites: "C" or better in ART 2273 or ART 2073 or consent of instructor.
Description: Development of technical skills and ideas through assigned projects. Intaglio processes include aquatint, softground, and multiple color work. Relief processes include reduction with stencils and multiblock. Litho techniques with permission of instructor.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3293 New Genres in Studio Art
Prerequisites: ART 2283.
Description: This course is a continuation of the Studio Art Digital Survey course. New Genres is a continued, more advanced exploration of the concepts, techniques, and history of non-traditional art forms. Students will work in experimental and interdisciplinary ways with non-traditional media such as video, sound, photography, performance, writing, assemblage, and installation. Course previously offered as ART 3283.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3383 Digital Imaging
Prerequisites: ART 2283 or ART 2423 and ART 2433 or by consent of instructor.
Description: This studio art course is a continuation of the concepts, tools, and techniques related to digital technology. Students will work specifically with digital photography, digital imaging and printing. Projects in the course will focus on fostering an intermediate level understanding of digital technologies and alternate process printing formats, while allowing more advanced students to incorporate media of personal interest.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3393 Photography II
Prerequisites: "C" or better in ART 2293 or ART 2803 or ART 2093 or consent of instructor.
Description: A further exploration of the creative opportunities in photography. Students will build on the basic understanding of the medium acquired in the introductory course, and respond to assigned aesthetic and conceptual problems. In this intermediate course, students will begin to articulate ideas visually and refine their technical skills in camera operation, digital imaging software, and large format printing.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3403 Illustration II
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Exploration of illustrative solutions to maximize visual interest via varied viewpoints, concepts and altered reality. Projects involving different career areas within the field of illustration. Requirements and advantages of each area.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3413 Typography II
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Exploration of typographic communication through a variety of problems. Type as the visual solution with emphasis on its functional, decorative, and creative applications. Solution of more complex typographic problems, dealing with a large body of information via the development of grid systems.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3423 Graphic Design II
Prerequisites: ART 2403, ART 2413, ART 2423, and portfolio review.
Description: Use of computer and traditional methods to enhance production skills and solution of design projects from concept to the comprehensive. Evaluation and design of symbols and logos and their various applications, leading to an understanding of system design. Introduction to graphic design production and the preparation of art for reproduction.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3453 Motion Design I
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Introduction to the basic concepts and techniques of motion design as visual communication. Students are introduced to the technical skills and critical thinking necessary for executing creative motion graphics intended to be experienced via electronic media, with an emphasis on typography, composition and design principles.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3463 Interaction Design I
Prerequisites: ART 2413, ART 2423 and portfolio review.
Description: Introduction to the basic concepts and techniques of interaction design as visual communication. Use of computer software to execute interactive design work intended to be experienced via electronic media, with an emphasis on typography, functionality and design principles.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3543 Leonardo, Art, And Science (H)
Description: Explores the deeply entwined fields of Renaissance art and science through the lens of Leonardo's extraordinarily diverse body of work. This course will consider the broader context of anatomical study, alchemy, early modern medicine, technological innovation, and psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3553 Fashioning and Self Fashioning: The Renaissance Portrait (H)
Description: Exploration of portraits created in Europe during the Renaissance. Addresses self-fashioning and artifice and the portrait as the collaborative product of artist, patron and subject.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3563 History of Prints and Printmaking
Description: A survey of graphic art primarily focused on Europe and the United States, from the 15th - 20th centuries. Relief, intaglio, lithography, photography, and other graphic media. Previously offered as ART 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3573 History of Photography
Description: An introduction to the history of photography from its beginnings in the early nineteenth century to the present. Emphasis will be on art and documentary photography in Europe and the United States. Photographs will be studied for their aesthetic, technical, cultural, and scientific purposes. The primary goal of the course is to promote critical and theoretical thinking about photographic images, their meaning, and impact on society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3583 Introduction to Museum and Curatorial Studies (H)
Description: Historical and theoretical introduction to museum and curatorial studies. Topics include museum ethics, the function of the curator, and the changing role of the museum. Same course as HIST 3593. Previously offered as ART 2643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3600 Writing Methods In Art History
Prerequisites: Consent of instructor.
Description: A supervised research and writing project, typically concurrent with enrollment in an upper division art history course. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 3603 History of Classical Art (H)
Description: Stylistic, philosophical, and formal qualities of art in the Classical world. The creation of the Greek ideal and its dissemination in the Roman world through architecture, sculpture, and painting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3623 History of Italian Renaissance Art (H)
Description: Architecture, sculpture, and painting in Italy, c.1300-1580. Major artists in their local contexts (e.g. Leonardo in Milan, Michelangelo in Florence, and Titian in Venice).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3633 History of Baroque Art (H)
Description: Art in 17th century Europe. Architecture, sculpture and painting of the Catholic Reformation (e.g. Caravaggio and Bernini in Italy, Velasquez in Spain, Rubens in Flanders), concluding with painting in non-sectarian, Protestant Netherlands (Rembrandt and Vermeer).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3643 History of Graphic Design
Description: Evolution of graphic communication from prehistoric times to the present. Investigation of the origins of printing and typography in Europe leading to the design of the printed page, the impact of industrial technology upon visual communication and the study of the growth and development of modern graphic design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3653 History of 19th Century Art (H)
Description: Art of 19th century Europe-ideals, conflicts, escapes, and triumphs, beginning with the French Revolution and ending in 1900.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3663 History of American Art (DH)
Description: Visual arts in America from the Colonial period to the present. Major styles, ideas and uses of material in architecture, painting, sculpture, and design. Same course as AMST 3673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ART 3673 History of Northern Renaissance Art
Description: Art in Northern Europe, c. 1200-1550. Emphasis on panel painting in the Netherlands (e.g. Van Eyck, Bosch), and book illustration in Germany (Durer).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3683 History of 20th Century Art (GH)
Description: Beginning with the birth of "modernism" in the late 19th century, exploration of the fast-changing artistic styles of the 20th century: abstraction, expressionism, fantasy, realism, surrealism, and social protest. Emphasis on the relationship of art and 20th century society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 3693 Survey of Asian Art (H)
Description: Arts of India, China, Japan and related countries in their historical and cultural settings. Traditions of painting, sculpture and architecture from their beginnings to the modern period. Same course as ART 2693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3713 Early Medieval Art: Saints, Martyrs, Pagans (H)
Description: Examination of the visual culture (sculpture, manuscripts, architecture, etc.) of the multicultural early Middle Ages in Europe and the wider Mediterranean world, from roughly 400 to 1050; includes Early Christian, Islamic, Byzantine, Germanic, Carolingian, Ottonian, and Anglo-Saxon artistic production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3723 Court and Cloister: Medieval Art 1050-1400 (H)
Description: Examination of the visual culture (sculpture, manuscripts, architecture, etc.) of the later Middle Ages in Europe and the wider Mediterranean world, from roughly 1050 through 1400; includes Islamic, Byzantine, Romanesque, and Gothic artistic production. Course previously offered as ART 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3733 History of Latin American Art I
Description: An overview of Latin American visual culture from the Precolumbian period to the present. We consider Maya, Aztec, and Inca cultures, the colonial arts of Spanish America, the South American avante garde, Mexican muralism and surrealism, and contemporary video, performance and installation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3743 History of Latin American Art II (GH)
Description: Exploration of modern Latin American Art, beginning with academic painting and emerging nationalisms in the nineteenth century and continuing through Mexican Muralism, modern art movements in South America, and contemporary painting, film, video, performance, and installation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 3753 The Arts of Spain and the Spanish World (H)
Description: The art and culture of Spain and the Spanish world, including Paleolithic art, Renaissance and Baroque works from the Iberian Peninsula and American viceroyalties, and ending with Picasso and Miro.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3763 Art Travel Course
Description: Art courses involved with the participation of a formal or informal travel experience outside the state.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3773 History of African American Art
Description: The history of African American visual arts and material culture. Topics might include black visual artists and movements, black art criticism, global contexts, and museum practices in relation to African American artists and/or artists of the African diaspora.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3800 Special Topics in Art History
Description: Art history course on special subjects and various issues. Offered on campus. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3890 Art History Honors Course
Prerequisites: Consent from the Art Department.
Description: Departmental invitation, Honors Program participation. A guided reading and research program ending with an honors under the direction of a faculty member. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 4053 Alternative Photography
Prerequisites: ART 3393, Photography II.
Description: This photography course provides an introduction to traditional photographic processes such as silver gelatin, salt prints, cyanotype, Van Dyke, and gum bichromate. Students will learn a variety of analog photographic processes as avenues to explore current questions in the medium. Through a series of assigned readings and regular critiques, students will consider their projects from a contemporary art perspective.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4100 Advanced Drawing
Prerequisites: ART 1113 and ART 1203 and ART 2113.
Description: An open medium investigation of drawing concepts, stressing personal thematic development, experimentation, and individually designed imagery. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4211 BFA Studio Capstone Exhibition
Prerequisites: Must have passed the BFA Studio Capstone Exhibition Review, must have consent of instructor.
Description: Provides individual guidance and instruction necessary for mounting the BFA Studio Capstone Exhibition. This exhibition is the culminating event of the studio major's studies and a final preparation for a career in the studio arts. Enrollment must occur during the semester in which the BFA Studio Capstone Exhibition is to be mounted.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4213 BFA Studio Capstone
Prerequisites: ART 2003, and concurrent enrollment in upper-division studio art course, or consent of instructor.
Description: The purpose of this course is to provide students with the knowledge they need to make a career in art. Using the art they are preparing for the BFA Studio Capstone Exhibition, students will develop presentation and marketing materials in line with the professional standards of the field. They will be taught how to find, recognize and pursue artistic opportunities. Previously offered as ART 4210.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4220 Oil Painting Studio
Prerequisites: ART 3223.
Description: Oil painting with emphasis on continuing personal development of visual ideas and techniques. Course previously offered as ART 4120. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4223 BA Studio Capstone
Prerequisites: ART 2003 and senior standing or consent of instructor.
Description: The course provides guided assistance to BA Studio Art students in developing a professional portfolio as it relates to their career interests in the arts. Previously offered as ART 4110.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4230 Watercolor Studio
Prerequisites: ART 3233.
Description: Stresses continued growth of personal imagery with an emphasis on the development of a consistent body of work and professional portfolio. Course previously offered as ART 4130. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4240 Jewelry and Metals Studio
Prerequisites: ART 3243.
Description: Emphasis on further development of personal concepts and technical skills through assigned and individual oriented projects. Broad-based exploration of advanced metalworking processes with emphasis on individual students' direction and technical needs. Course previously offered as ART 4340. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4250 Ceramics Studio
Prerequisites: ART 3253.
Description: Intended for students who want to specialize in the ceramic field of art. Will include sophisticated techniques of clay, glaze and firing methods. Emphasis on creation of a unique, well researched, aesthetically concise, and technically successful body of work. Course previously offered as ART 4500. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4260 Sculpture Studio
Prerequisites: ART 3263.
Description: A broad-based course which allows students to pursue individual interests using a variety of materials and processes. Emphasis on further development of concepts, skills, and techniques. Course previously offered as ART 4330. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4270 Printmaking Studio
Prerequisites: ART 3273 and proficiency review or consent of instructor.
Description: A broad-based course which allows students to pursue individual interests using a variety of printmaking materials and processes. Emphasis on further development of concepts, skills and techniques. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4280 Photography Studio
Prerequisites: ART 3393 or consent of instructor.
Description: The development of a personal artistic expression using photography. Through a combination of assigned and self-directed projects, this advanced course focuses on the continued development of conceptual aptitude and technical skills. The emphasis is on developing a creative body of work and engaging current and theoretical trends in the medium. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4420 Graphic Design Studio
Prerequisites: ART 3423, ART 3443 or consent of instructor.
Description: Design and production of projects suited to the professional portfolio. Discussion of practical issues including career options, resume and portfolio preparation, and interview techniques. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4430 Illustration Studio
Prerequisites: ART 3403, ART 3443 or consent of instructor.
Description: Conceptual development and production of illustrations in series. Development of individual style and assembly of a professional and consistent portfolio. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4450 Motion Design Studio
Prerequisites: ART 3443 or consent of instructor.
Description: Exploration of motion design as visual communication. Development of technical skills and critical thinking necessary for executing creative motion graphics portfolio work intended to be experienced via electronic media, with an emphasis on conceptual development and application of design principles. Course previously offered as ART 4453. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4460 Interaction Design Studio
Prerequisites: ART 3453 or consent of instructor.
Description: Exploration of the visual and technical aspects of interaction with various electronic platforms to design effective graphical user interfaces. Emphasis on quantitative and qualitative research, process, and traditional graphic design methods for creating user-centered digital environments. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4493 Portfolio Capstone
Prerequisites: Senior standing and consent of instructor.
Description: Final preparation of a professional portfolio, culminating in an extensive design project and the design, organization and production of an exhibition of work. Professional study on setting fees, writing contracts, working with an agent and other business practices.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4583 Rome: The Eternal City in Art and Film (H)
Description: The idea of Rome as seen through ancient and modern visual culture. Course begins with the Augustan propaganda machine and subsequently considers the most significant imperial image-makers to follow. A major portion of the course will be devoted to more recent and modern projections of the city, from Mussolini's New Rome to Fellini's Roma. No credit for students with credit in ART 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4593 Art of Conversion: 16th Century Art in Mexico (H)
Description: Art and architecture of the sixteenth century, including mission architecture, early altar-screens, the effect of European imports on native art production, and the role of confraternities and public ceremonies on contact-period culture. No credit for students with credit in ART 5593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4603 History of Ancient Egyptian Art
Description: Broad survey of ancient Egyptian art and architecture from Pre-dynastic to the beginning of the Christian Era under Roman rule (4000 B.C.-320 A.D.). Discussion within the context of religious meaning and overall cultural development of ancient Egypt.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4613 Art Since 1960
Description: This course explores some of the artistic, conceptual, and theoretical developments in art since 1960. Course covers major trends in art history—including Minimalism, Pop, Performance, and Conceptual Art, Social Practice, and more. Students will consider many of the socio-political issues relevant to the study of global contemporary art. May not be used for degree credit with ART 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4653 History of Indian Art
Description: The history and culture of South Asia (India and Pakistan) are explored through its arts —architecture, sculpture, painting, and design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4663 History of Chinese Art (H)
Description: The arts of China in their historical, cultural, religious, and social context. Painting, sculpture, architecture, porcelain, furniture, and decorative arts. No credit for students with credit in ART 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4673 History of Japanese Art
Description: Critical social, religious, and historical issues in the arts of Japan. Painting, sculpture, architecture, landscape architecture, prints, and decorative arts. No credit for students with credit in ART 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4683 Modern and Contemporary Art in Asia
Description: Modern and contemporary art in Asia. Special attention to the role of race, gender, and social class on artistic production. May not be used for degree credit with ART 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4693 Gender And Visual Culture
Description: Explores themes and issues surrounding gender in relation to art history and visual culture more broadly. Topics may include artists and creators, sexuality, the body, eroticism, historicizing gender, feminism and feminist theory, etc. No credit for students with credit in ART 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4703 Art East and West: Biases and Borrowings
Description: Explores the complicated interaction, cultural borrowings and responses on many levels of two major world systems, the "West" (Europe and America) and the "East" (South and East Asia). Beginning with the development of the sea trade in the 16th century, the course will study, through works of art, the effect of history, politics, religious struggles, economics, trade and ethnic biases on the cultures of East and West. No credit for students with credit in ART 5703.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 4713 The Visual Culture of the Islamic World (GH)
Description: Examines the visual culture, including art and architecture, of the Islamic world, dating from the inception of Islam in seventh-century Arabia through today. No credit for students with credit in ART 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 4723 History of Museums and Collecting
Description: Investigation of the history of museums and collecting practices in Western Europe and the United States from the sixteenth century to the mid-20th century. Same course as ART 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4733 Museum Education
Prerequisites: ART 1513 or ART 2643 or by permission of instructor.
Description: Introduction to the major topics in museum education, including how object based learning is used with individuals and groups. Addresses the major pedagogical issues surrounding the use of art and other objects in museums. May not be used for degree credit with ART 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4763 Native American Art and Material Culture
Description: Survey of the history and material production of the Native American tribes living within the boundaries of the continental United States and Canada. Focus on basic concepts and primary issues related to tribes of the major geographical areas: the woodland areas, which includes the Northeast and Great Lakes area, the Southeast, the Great Plains, the Southwest, the Plateau and West Coast, and the Northwest Coast. No credit for students with credit in ART 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4783 Rembrandt Van Rijn
Prerequisites: ART 1503 or ART 1515 or ART 1603 or by permission of instructor.
Description: The Dutch artist Rembrandt van Rijn (1606-1669) was one of the most important and innovative painters and printmakers of the seventeenth century. This course will acquaint students with both his extensive body of work and the central critical issues that interest scholars today. Same course as ART 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4793 Architecture and Space in East Asia
Description: History of Architecture in East Asia from the traditional Chinese timber frame to the 20th century. Will address how architecture delivers political ideologies and structures social relationships, both symbolically and in practice. May not be used for degree credit with ART 5793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4800 Special Studies in Art
Prerequisites: Junior standing and consent of instructor.
Description: Courses in media exploration, special subjects and current issues. Offered on campus or through extension workshops. Offered for variable credit, 1-3 credits, max 9.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4810 Museum Internship
Description: An on-site museum experience, including exhibition selection and preparation, collection cataloging and research, and museum administration. Offered for variable credit, 1-3 credits, max 9.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4813 Museum Exhibition
Description: Designing an exhibition that draws on the Oklahoma State University art collection. Includes museum history, theory, and curatorial practice. Same course as ART 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4820 Graphic Design Internship
Prerequisites: ART 3403 or ART 3423 and consent of instructor.
Description: An on-site graphic design work experience that provides professional practice under the supervision of a design professional. Offered for variable credit, 1-6 credits, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4830 Apprenticeship
Description: Professional opportunity to work with artists of national and international reputation. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4840 Studio Art Internship
Prerequisites: Formal written approval of Studio Art faculty sponsor and on-site supervisor.
Description: The studio art internship provides direct occupational experience in a professional arts related work environment under the direct supervision of a professional or someone of significant stature in an arts related field. A final associated paper/project is required. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4850 Special Topics in Graphic Design
Prerequisites: ART 3423 and ART 4420 or ART 4450 or ART 4460.
Description: Course in graphic design and design media exploration, current practices, and contemporary issues. Includes specific topics such as: advanced typography, (lettering, typeface design), exhibition design, way-finding and navigational graphics, design writing workshop, magazine design, new media tools, and creative coding. Offered on campus or through extension workshops. May not be used for degree credit with ART 5850.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4860 Art History Seminar
Description: Art history seminar courses on special subjects and various issues. Open to major and non-major students. May not be used for degree credit with ART 5860. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4900 Directed Study In Art
Prerequisites: Junior standing and written permission of department head.
Description: Self-designed special topics in studio art or graphic design. By contract only. May not be used for degree credit with ART 5900. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4910 Directed Study in Art History
Prerequisites: Junior standing and written consent of department head.
Description: Self-designed special topics in art history. By contract only. May not be used for degree credit with ART 5910. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4920 Art History Symposium
Prerequisites: ART 4943.
Description: Specifically for art history majors, and typically taken during the student's final year. Students participate in a public presentation of a research paper prepared in ART 4943 (Art History Senior Capstone). Special attention is given to argument, methodology, visual, and overall presentation. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4933 Art in Context
Prerequisites: One hour of ART 3600.
Description: Designed specifically for art history majors, and typically taken during the junior year, this course examines select critical theories and their methodological application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4943 Art History Senior Capstone
Prerequisites: ART 1503, ART 1513, Art 2573, and one 3000- or 4000-level Art History course.
Description: Designed specifically for art history majors, and typically taken during the senior year, this course guides students through the research, writing, and presentation of a capstone research paper. Additional topics may include career preparation and professional development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4973 20th Century Chinese Art
Description: This course will explore the ways in which Chinese artists of the 20th century have defined China's history and culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4993 Senior Honors Project
Prerequisites: Departmental invitation, Senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis or project under the direction of a faculty member. Required for graduation with departmental honors in art.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 5000 Art History Master's Thesis
Description: Independent study course intended to provide guidance for research and writing of MA Thesis in art history. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5013 Theory and Methods in Art History
Description: This course examines the field of art history in terms of its historiography, research methods, critical frameworks and theoretical underpinnings. Students are expected to develop and articulate their own theoretical and methodological position in the context of and with explicit reference to contemporary praxis and theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5280 Graduate Photography
Prerequisites: Graduate Standing.
Description: The development of a personal artistic expression using photography and related media. Through a combination of assigned and self-directed projects, this advanced course focuses on the continued development of conceptual aptitude and technical skills. The emphasis is on developing a creative body of work and engaging current and theoretical trends in the medium.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5400 Graduate Study: Graphic Design Thesis
Description: Independent inquiry based on an original idea associated with a student's chosen area of concentration under the direction and supervision of a major professor and graduate thesis committee. Thesis requires the definition of a graphic design problem, research of case studies and visual works relevant to the thesis topic, and the creation of an outline for the thesis. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5410 Graduate Graphic Design Internship
Description: On-site, graphic design work experience that provides graduate level students with professional practice under the supervision of a design professional. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5413 Graduate Teaching Practicum in Graphic Design
Description: This course is intended to provide graduate graphic design students seeking a career in higher education with university-level teaching methods and professional practices of curriculum development, syllabus writing, clarity of thinking, and various components of professional papers and presentations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5420 Graduate Graphic Design Studio
Description: Introduction to the advanced concepts and techniques of graphic design as visual communication. Graduate students are introduced to the critical thinking necessary and technical skills for executing creative graphics work intended to be experienced via print media, with an emphasis on typography, composition and design principles. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5423 Graduate Study in Graphic Design History
Description: This course builds on foundational knowledge of graphic design history. Emphasis is placed on in-depth review and analysis of ground breaking design movements and perspectives, from modernism to contemporary era. Lectures, readings, research and other course activities will bring forth critical understanding of the relationship of history, design and culture as interconnected thread throughout time.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5440 Graduate Special Topics in Graphic Design
Description: Application of graphic design processes utilizing hybrid media and forms to address research topics. Emphasis on creative approaches to concept-driven design projects and development of a theoretical framework appropriate for graduate level work. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5450 Graduate Motion Design Studio
Description: Exploration of motion design as visual communication. Development of technical skills and critical thinking necessary for executing creative motion graphics portfolio work intended to be experienced via electronic media, with an emphasis on conceptual development and application of design principles. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5460 Graduate Interaction Design Studio
Description: Exploration of the visual and technical aspects of interaction with various electronic platforms to design effective graphical user interfaces. Emphasis on quantitative and qualitative research, process and traditional graphic design methods for creating user-centered digital environments. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5470 Graduate Study in Graphic Design
Description: Intensive graduate course of study in the fundamentals of graphic design. The course emphasizes research and analysis and the design processes that lead to creative conceptualization and final design solutions. Students are expected to demonstrate sophisticated design decisions and appropriate design solutions that demonstrate a high level of expertise and achievement to be experienced via print media. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5480 Graduate Study in Motion Design
Description: Graduate level course in motion design (also referred to as motion graphics). This course provides students with the opportunity to conduct research, develop advanced technical skills and apply critical thinking to graphic design using time based media. Students will explore the role motion design plays in shaping meaning and contributing to visual culture. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5490 Graduate Study in Interaction Design
Description: Interaction Design, as it relates to the field of Graphic Design, is the creation of a dialogue between a person and a product, system, or interplay between form, function, and technology as experienced over time. Students will explore the role of graphic design while conducting sound research in a variety of disciplines such as psychology, communication theory, and sensory integration. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5583 Rome Eternal City
Description: The idea of Rome as seen through ancient and modern visual culture. Course begins with the Augustan propaganda machine and subsequently considers the most significant imperial image-makers to follow. A major portion of the course will be devoted to more recent and modern projections of the city, from Mussolini's New Rome to Fellini's Roma. No credit for students with credit in ART 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5593 Art of Conversion: 16th Century Art in Mexico
Description: Art and architecture of the sixteenth century, including mission architecture, early altar-screens, the effect of European imports on native art production, and the role of confraternities and public ceremonies on contact-period culture. No credit for students with credit in ART 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5613 Art Since 1960
Description: This course explores some of the artistic, conceptual, and theoretical developments in art since 1960. Course covers major trends in art history-including Minimalism, Pop, Performance, and Conceptual Art, Social Practice, and more. Students will consider many of the socio-political issues relevant to the study of global contemporary art. May not be used for degree credit with ART 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5663 History Of Chinese Art
Description: Critical social, religious, and historical issues in the arts of China. Painting, sculpture, architecture, porcelain, furniture, and decorative arts. No credit for students with credit in ART 4663.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5673 History of Japanese Art
Description: Critical social, religious, and historical issues in the arts of Japan. Painting, sculpture, architecture, landscape architecture, prints, and decorative arts. No credit for students with credit in ART 4673.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5683 Modern and Contemporary Art in Asia
Description: Modern and contemporary art in Asia. Special attention to the role of race, gender, and social class on artistic production. May not be used for degree credit with ART 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5693 Gender and Visual Culture
Description: Explores themes and issues surrounding gender in relation to art history and visual culture more broadly. Topics may include artists and creators, sexuality, the body, eroticism, historicizing gender, feminism and feminist theory, etc. No credit for students with credit in ART 4693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5703 Art East and West: Biases and Borrowings
Prerequisites: Instructor permission.
Description: Explores the complicated interaction, cultural borrowings and responses on many levels of two major world systems, the "West" (Europe and America) and the "East" (South and East Asia). Beginning with the development of the sea trade in the 16th century, the course will study, through works of art, the effect of history, politics, religious struggles, economics, trade and ethnic biases on the cultures of East and West. No credit for students with credit in ART 4703.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5713 Islamic Visual Culture
Description: Examines the visual culture, including art and architecture, of the Islamic world, dating from the inception of Islam in seventh-century Arabia through today. No credit for students with credit in ART 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5723 History of Museums and Collecting
Prerequisites: Graduate standing.
Description: Investigation of the history of museums and collecting practices in Western Europe and the United States from the sixteenth century to the mid-20th century. Same course as ART 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5730 Practicum in Curatorial Practice
Prerequisites: Graduate standing.
Description: Curatorial experience under the supervision of a museum and curatorial studies certificate program faculty member. Students will assist in the conceptualization, research and organization of an existing curatorial project or create one of their own. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5733 Museum Education
Prerequisites: Graduate standing.
Description: Introduction to the major topics in museum education, including how object-based learning is used with individuals and groups. Addresses the major pedagogical issues surrounding the use of art and other objects in museums. Same course as ART 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5763 Native American Art and Material Culture
Prerequisites: Permission of instructor.
Description: Survey of the history and material production of the Native American tribes living within the boundaries of the continental United States and Canada. Focus on basic concepts and primary issues related to tribes of the major geographical areas: the woodland areas, which includes the Northeast and Great Lakes area, the Southwest, the Great Plains, the Southwest, the Plateau and West Coast, and the Northwest Coast. No credit for students with credit in ART 4763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5783 Rembrandt Van Rijn
Prerequisites: Graduate student standing.
Description: On-site museum experience, including exhibition selection and preparation, collection cataloging and research, museum education, and museum administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5793 Architecture and Space in East Asia
Description: History of Architecture in East Asia from the traditional Chinese timber frame to the 20th century. Will address how architecture delivers political ideologies and structures social relationships, both symbolically and in practice. May not be used for degree credit with ART 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5810 Museum Studies Internship
Prerequisites: Graduate student standing.
Description: On-site museum experience, including exhibition selection and preparation, collection cataloging and research, museum education, and museum administration. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5813 Museum Exhibition
Prerequisites: Graduate standing or permission of instructor.
Description: Designing an exhibition that draws on the Oklahoma State University art collection. Includes museum history, theory, and curatorial practice. Same course as ART 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5850 Special Topics in Graphic Design
Description: Course in graphic design and design media exploration, current practices, and contemporary issues. Includes specific topics such as: advanced typography, (lettering, typeface design), exhibition design, way-finding and navigational graphics, design writing workshop, magazine design, new media tools, and creative coding. Offered on campus or through extension workshops. May not be used for degree credit with ART 4850. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5860 Art History Seminar
Description: Art history seminar courses on special subjects and various issues. Open to major and non-major students. May not be used for degree credit with ART 4860. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5900 Graduate Studies in Art
Prerequisites: BA, BFA or 15 upper-division hours in a discipline; consent of instructor.
Description: Projects in art with emphasis on portfolio preparation. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5910 Graduate Studies in Art History
Prerequisites: BA, BFA or 15 upper-division hours in art history; consent of instructor.
Description: Advanced research in art history. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5920 Art History Graduate Seminar
Description: Special topics graduate seminar in art history. Offered for variable credit, 3-12 credit hours, maximum of 12 credit hours.
Credit hours: 3-12
Contact hours: Contact: 3-24 Other: 3-24
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5973 20th Century Chinese Art
Description: This course will explore the ways in which Chinese artists of of the 20th century have defined China's history and culture. May not be used for degree credit with ART 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

Arts & Sciences (A&S)

A&S 1111 A&S First Year Seminar
Description: Designed for incoming freshmen in the College of Arts & Sciences. Focuses on developing as a person, scholar, and professional through the exploration of majors and careers, personal strengths, goal setting, curriculum planning, academic success strategies, and ways of connecting to others and the university. Some sections are intended for particular majors or interests. Same course as UNIV 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 1211 Arts & Sciences Freshman Research Scholars
Description: This seminar is for students who are participating in the Freshman Research Scholars Program. The tools needed for research and the approaches used to present the output of research will be discussed. The essential components of a research proposal will be reviewed, with examples of the approach needed for a successful proposal. Students will prepare their own research proposal in an area of interest to them. Previously offered as A&S 1222.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 2000 Special Topics
Description: Selected interdisciplinary topics presented in lecture or seminar format. Offered for variable credit, 1-7 credit hours, maximum of 10 credit hours.
Credit hours: 1-7
Contact hours: Contact: 1-7 Other: 1-7
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 2001 Introduction to European Studies
Description: Overview of the history, languages, and cultures of the nations currently constituting the European Union.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 2111 Career Exploration
Prerequisites: For CAS majors only
Description: This course assists students in exploring their interests, personality, and skills, identifying prospective careers and industries, and developing application materials. Students explore career interests through assessments, research, reflection, and planning. Students will have opportunities to practice writing resumes, cover letters, and other professional correspondence.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 3080 International Experience
Prerequisites: Consent of the associate dean of the college.
Description: Participation in a formal or informal educational experience outside of the USA. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 3090 Study Abroad
Prerequisites: Consent of the Study Abroad office and associate dean of the college.
Description: Participation in an OSU reciprocal exchange program. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science
Additional Fees: Study Abroad fee of $200 applies.

A&S 3111 First Year Transfer Seminar
Description: Designed for incoming transfer students in the College of Arts & Sciences. Focuses on developing as a person, scholar, and professional through the strengths, goal setting, curriculum planning, academic success strategies, and ways of connecting to others and the university.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 3710 A&S Internship
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a professional work setting. Students must have an approved internship that will provide experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. For use in special circumstances when a departmental internship course is not applicable. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 4000 Special Topics
Description: Selected interdisciplinary topics presented in lecture or seminar format. Some sections may be pass/fail. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 4013 Multidisciplinary Studies Capstone
Prerequisites: Consent of instructor.
Description: Research report or other creative activity undertaken to satisfy capstone requirement for multidisciplinary studies degree.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 4111 Job Search Strategies
Prerequisites: Junior standing. For CAS majors only.
Description: Identification of individual goals and transferable skills, exploration of career options, job market research, and development of employment search tools.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

A&S 4113 Research in Digital Studies
Prerequisites: Consent of instructor.
Description: Digital research project or other creative activity undertaken to satisfy capstone requirement for the Digital Studies certificate. May not be used for degree credit with A&S 4710.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

A&S 4710 Internship in Digital Studies
Prerequisites: Junior or senior standing; permission of instructor.
Description: Practicum or Internship that supports the Certificate in Digital Studies. Before enrolling, students have an individual contract approved by the Digital Studies Curriculum Committee. Projects should employ computing, digital discovery/curation, or multimedia production skills. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

Arts Administration (AADM)

AADM 1203 Introduction to Arts Administration
Description: An introduction to the theories and practices of the successful administration of arts organizations. Topics include governance, budgeting, funding, fundraising, audience development, marketing, event planning and staffing, and relationships with artists served.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 2103 Fundraising for the Arts
Prerequisites: AADM 1203.
Description: An introduction to the theories and practices of development and fundraising for arts organizations. The course includes a study of the history of philanthropy and fundraising in the United States and their centrality to the operation of contemporary arts organizations. The course is essential for arts administrators but suitable for those who wish to pursue professional careers in development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 2500 Practicum in Arts Administration
Prerequisites: Permission of instructor.
Description: Directed study and practice in administration of an arts-related event or organization. Offered for variable credit, 1-2 credit hours, maximum of 6 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

AADM 3203 Approaches in Arts Administration
Prerequisites: AADM 1203 and AADM 2103.
Description: Broadens and deepens knowledge and skills acquired in AADM 1203, primarily through the analysis of specific arts organizations. Additional topics include law and ethics, mission statements, internal organization and external environments, revenue generation, and assessment of efficacy. Competency in the theories and practices introduced in this course are necessary for assuming leadership positions in arts organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 3500 Special Topics in Arts Administration
Description: Specialized topics in Arts Administration. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 4123 Entrepreneurship and the Arts
Description: Introduces entrepreneurship as a way of thinking and acting within the arts, including fine art, theatre, music, and design. Key entrepreneurial competencies are explored, including opportunity recognition, risk management, resource leveraging, and innovation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 4203 Senior Project in Arts Administration
Prerequisites: Senior standing and consent of instructor.
Description: A guided research, practicum, or internship project ending with a thesis or report under the direction of a faculty member.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

AADM 4403 Senior Honors Project in Arts Administration
Prerequisites: Senior standing, consent of instructor. Honors Program participation.
Description: A guided research, practicum, or internship project ending with an honors thesis or report under the direction of a faculty member, with second faculty committee member. Required for graduation with departmental honors in arts administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Honors Credit

Astronomy (ASTR)

ASTR 1013 The Solar System (N)
Description: Recent discoveries about the sun, planets, moons, asteroids, meteoroids, and comets; formation and future of the solar system; interplanetary travel, colonization, terraforming, and the search for extraterrestrial life. Offered in the fall semester. Previously offered as ASTR 1104 and ASTR 1014.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

ASTR 1023 Stars, Galaxies, Universe (N)
Description: Recent discoveries about the structure and life cycles of stars, galaxies and the universe; the search for extraterrestrial intelligence; interstellar travel, black holes, wormholes, and tachyons. Offered in the spring semester. Previously offered as ASTR 1024.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

ASTR 2123 Observational Astronomy
Prerequisites: PHYS 1023, PHYS 1214
Description: This course provides an overview of fundamental techniques and key findings in modern observational astronomy, with a focus on telescopes, detectors, imaging, and spectroscopy. Special attention is given to discoveries across various wavelengths, including radio, optical, infrared, X-ray, and gamma-ray astronomy with explanations of theoretical models behind these discoveries. Additionally, the course covers methods for analyzing contemporary astronomical data from James Webb Space Telescope, Hubble Space Telescope, Chandra X-ray Observatory, and Fermi Large Area Telescope.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

ASTR 3023 Astrophysics
Prerequisites: PHYS 2114 or consent of instructor; ASTR 1024 recommended.
Description: Analysis and interpretation of astronomical phenomena in terms of the laws of physics; e.g. stellar structure, the interstellar medium, galaxies and cosmology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

ASTR 4010 Observatory Research
Prerequisites: PHYS 2114 and consent of instructor; ASTR 1013 or ASTR 1023 recommended.
Description: Team execution of multi-semester observing programs with electronic detectors at OSU's off-campus observatory. Introduction to digital image processing and analysis. Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Physics

Aviation and Space Education (AVED)

AVED 1114 Theory of Flight
Description: Private pilot ground school. Course includes theory of flight, principles of navigation, meteorology, and Federal Aviation Regulations. Preparation for FAA private pilot computer-based knowledge exam. Previously offered as AVED 1113.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 1210 Private Flight Laboratory 1A
Description: Flight lab for beginning pilots. Course contains first part of FAA Private Pilot Certification. Training conducted under 14 CFR 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 1222.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 1222 Private Flight Laboratory I
Description: Flight lab for beginning pilots. Course contains first part of FAA Private Pilot Certification. Training conducted under 14 CFR 141. Course previously offered as AVED 1221.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 1230 Private Flight Laboratory 2A
Prerequisites: AVED 1222 or AVED 1210
Description: Flight lab for beginning pilots part two. Course contains second part of FAA private pilot certification. Training conducted under 14 CFR. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 1232.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 1232 Private Flight Laboratory II
Prerequisites: AVED 1222.
Description: Course contains second part of FAA Private Pilot Certification. Training conducted under 14 CFR 141.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 1403 Advanced Theory of Flight
Prerequisites: AVED 1114 and passed FAA Private Pilot Examination.
Description: Advanced navigation, aircraft performance and meteorology, and introduction to crew resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2112 Secondary Flight (H)
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Human Heritage & Cultures

AVED 2120 Intermediate Flight Laboratory 1A
Prerequisites: AVED 2133 or AVED 2130.
Description: Professional Pilot Course emphasizing IFR cross country operations. Flight instruction conducted under Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 2122. Special fee required.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 2122 Intermediate Flight Lab
Prerequisites: AVED 2133.
Description: Professional Pilot Course emphasizing IFR cross country operations. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2130 Instrument Flight Laboratory 1A
Prerequisites: AVED 1222 or AVED 1210, and AVED 1232 or AVED 1230.
Description: Professional Pilot Course required for FAA instrument rating. Flight instruction conducted under FAR Part 141. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours. May not be used for degree credit with AVED 2133.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $233 applies.

AVED 2131 Conventional Landing Gear Systems
Prerequisites: AVED 1232 Primary Flight Lab II.
Description: Course provides the knowledge and practical experience required to demonstrate proficiency in conventional landing gear configured aircraft. Completion of this course will endorse the student under Federal Regulation Part 61 for Pilot-In-Command operation for Tail Wheel aircraft. Requires flight instruction conducted under FAA FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 2133 Instrument Flight Laboratory
Prerequisites: AVED 1222 and AVED 1232.
Description: Professional Pilot Course required for FAA instrument rating. Flight instruction conducted under FAR Part 141. Previously offered as AVED 2132.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2140 Commercial Maneuvers Flight Laboratory 1A
Prerequisites: AVED 2122 or AVED 2120.
Description: Professional Pilot Course emphasizing Commercial practical test maneuvers. Flight instruction conducted under Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 2142.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 2142 Commercial Maneuvers Flight Lab
Prerequisites: AVED 2122.
Description: Professional Pilot Course emphasizing Commercial practical test maneuvers. Flight instruction conducted under FAR Part 141.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2213 Theory of Instrument Flight
Prerequisites: AVED 1403.
Description: Instrument flight rules, the air traffic system and procedures, the elements of forecasting weather trends. Preparation for FAA instrument computer-based knowledge exam. Previously offered as AVED 2214.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2313 Theory of Commercial Flight
Prerequisites: Passed Private Pilot Knowledge Exam.
Description: Advanced aircraft systems, aerodynamics, federal aviation regulations, airports and airspace, navigation, and performance. Preparation for FAA Commercial Pilot Written Examination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2513 Aviation Career Planning and Development
Description: Assessment of career interests and aviation job opportunities that match those interests. Development of an academic and career learning and development plan consistent with identified interests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3113 History of Aviation
Description: History of aviation from its early developments to the present. Historic events and the role of government as they relate to the evolution of the regulatory infrastructure of the aviation industry. Previously offered as AVED 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3231 Theory of Multi-Engine Flight
Prerequisites: Private Pilot Certificate.
Description: Aeronautical theory and information required for operating the multi-engine airplane safely, efficiently and within its specified limitations. Emphasis on aerodynamics and multi-engine emergencies.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3243 Human Factors in Aviation
Description: The study of people interacting with the aviation environment. Individual and group performance, equipment design, physical environment and procedure development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3333 Advanced Aircraft Systems
Prerequisites: AVED 2313.
Description: Professional Pilot Course emphasizing multiengine operations, including Commercial certification with Multiengine Rating. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3341 Multi-Engine Flight Laboratory
Prerequisites: AVED 2142.
Description: Professional Pilot Course emphasizing multiengine operations, including Commercial certification with Multiengine Rating. Flight instruction conducted under FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 3433 Aviation/Aerospace Ethics
Description: Ethical decision-making as applied to the aviation and aerospace industry, an industry with narrow tolerance for error in terms of human life and economic impact. Awareness of aviation ethical issues and associated decision-making skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3443 Aviation Legal and Regulatory Issues
Description: Insight pertinent to federal governing bodies in addition to local and international laws forming the present structure of aviation law. Practices and pitfalls in aviation activities and a basic legal research capability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3453 Aviation/Aerospace Security Issues
Description: Analysis of the legal and regulatory responses to changing threats to aerospace security. Review of technological solutions for airports and aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3463 Aerospace Maintenance and Safety
Description: Identification and management of the human errors encountered in all aspects of aircraft maintenance operations. Case studies of maintenance-related accidents: line, hangar, and overhaul maintenance. The role of quality control and quality assurance are also examined as tools in reducing maintenance error.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3473 OSHA for Aerospace Managers
Description: Occupational safety and health requirements within the aerospace industry. History of OSHA, OSHA regulations relative to aerospace organizations along with recent inspection results and published violations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3483 Airport Passenger and Baggage Screening
Description: The history of airport security, the laws and agencies tasked with aviation security and the passenger and baggage screening technologies currently in use or being tested in airports. The role of technology in the aviation layered security program will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3493 Analysis of Aviation Security Countermeasures
Description: A comprehensive approach to identification and analysis of security countermeasures in the Aviation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3513 Aviation/Aerospace Management Principles
Description: Managing the major elements of the aviation/aerospace industry, including aircraft manufacturing and air transportation system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3523 Airport Planning and Management
Description: Overview of the major functions of airport management, including master planning. Study of the socio-economic effects of airports on the communities they serve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3533 Aircraft Turbine Engine Operation
Description: Principles of physics and gas laws pertaining to turbine powered aircraft operation. Turbine power plant systems theory with emphasis on safe and efficient operation of turbine powered aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3543 Aerospace Organizational Communications
Description: Aerospace communication to aid aviation students in proper use of written and verbal skills needed in various aerospace leadership roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3563 Aviation Marketing
Description: Marketing aviation products for the major elements of the aviation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3573 Aviation/Aerospace Finance
Description: Financing the major elements of the aerospace industry, including general aviation, aircraft manufacturing and airports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3623 Airport Network Security
Description: Comprehensive evaluation of the airport network landscape to include evaluation and mitigation of potential threats to the overall airport environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3663 Aerospace and Air Carrier Industry
Description: Broad understanding of the air transportation industry and an in-depth knowledge of the organizational structures, managerial functions and operational aspects of today's major, national, and regional air carriers. Historical perspectives, regulators and associations, economic characteristics, labor relations and marketing of modern air carriers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3773 Underrepresented Populations in Aviation and Space (D)
Description: This course will identify the current issues facing the aviation and aerospace industry, and why inclusiveness within the industry matters even more today, as well as in the future. Explore the numerous struggles that underrepresented populations overcame to achieve their successes; and examine the many contributions that underrepresented populations made to the U.S. aviation and aerospace industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

AVED 3883 Space Flight
Description: A broad understanding and an in-depth knowledge of space flight and exploration of outer space. Emphasis will be placed on a thorough historical review and examination of the types of people and technological advancements involved in space exploration and flight.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3913 Planetary Sciences
Description: A grand tour of the classical planets, minor planets, moons, asteroids, comets, the Sun and more. The course will cover the physical sciences utilized within the greater field of planetary sciences (e.g. Earth sciences, chemistry, physics, astronomy, and biology) in order to aid students' learning of course material. Within the grand tour, focus will be placed on major scientific results of telescopic and spacecraft missions, as well as laboratory and field measurements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3993 Aviation/Aerospace Supply Chain Management
Description: Management of aviation/aerospace supply chain processes and performance. Encompass the processes associated with the production of goods and services, including the movement of raw materials, inventory, and finished products. Introduce a variety of industry examples and cases related to aviation/aerospace domestic and global demand-driven supply chains to understand and evaluate the vital role of supply chain management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4100 Specialized Studies in Aviation
Description: Independent studies, seminars, and training within selected areas of aviation. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4103 Aerospace Distribution, Warehousing and Transportation
Description: Aerospace logistics concepts and the management of aerospace distribution activities ranging from top management planning to warehousing and shipping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4113 Aviation Safety
Description: Flight safety including studies in human factors, weather, aircraft crashworthiness, accident investigation, and aviation safety programs. Elements of aviation safety and flight operations (private flying, flight instruction, and business flying) and commercial aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4123 Aerospace Depot Maintenance
Description: Aerospace depot maintenance operational and budget issues related to Economic Order Quality, Materials Requirement Planning, Benefit Cost Analysis, repair expenditures, fleet flight hours, transport modules, handling, shipping and other activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4133 Principles of Flight Instruction
Description: Preparation for the FAA Fundamentals of Instructing and Flight Instructor Knowledge Exams, as well as preparation for the CFI Initial Practical Test.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4143 Government Operations and Interfaces in Aerospace Management
Description: Government and its impact on aerospace management decisions related to logistics, inventory management, production, and operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4153 Aerospace Sustainment
Prerequisites: Senior standing.
Description: A capstone course requiring application of all elements of the supply-chain management process to an aerospace organizational problem or project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4163 FAA and Aerospace Logistics Regulations and Requirements
Description: Government regulations and requirements and the impact of those requirements on the aerospace supply chain management processes using case scenarios related to logistics, aviation, operations, procurement and the environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4173 Aerospace Logistics Quality Programs
Description: Logistics quality programs, including TQM, Kaizen, Lean, Six Sigma, and ISO 9000 in aerospace organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4193 Aerospace Human Resource Management and Aerospace Workforce Acquisition
Description: Workforce planning techniques to strengthen knowledge retention practices within the aerospace industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4200 Internship in Aviation
Description: Individually supervised internship in aviation career areas. Directed field experience related to the participant's area of concentration. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4223 Turbine Aircraft Transition
Prerequisites: AVED 3341, AVED 3333, AVED 4353 and AVED 4703.
Description: Fundamental flight and operating procedures of turbine engine aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4230 Flight Instructor Flight Laboratory 1A
Prerequisites: AVED 2142 or AVED 2140, and AVED 4133.
Description: Dual flight instruction to meet the requirements for the FAA flight instructor: airplane certificate. Flight instruction conducted under FAR Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 4232. Special fee required.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 4232 Flight Instructor: Airplane Flight Laboratory
Prerequisites: AVED 2142, AVED 4133.
Description: Dual flight instruction to meet the requirements for the FAA flight instructor: airplane certificate. Flight instruction conducted under FAR Part 141. Previously offered as AVED 4231.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 4303 Aviation Weather
Prerequisites: GEOG 3033.
Description: Familiarization with weather products needed to enhance flight safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4331 Flight Instructor: Instrument Flight Laboratory
Prerequisites: AVED 4232.
Description: Dual flight instruction to meet the requirements of adding an instrument flight instructor rating to the flight instructor certificate. Flight instruction conducted under FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $260 applies.

AVED 4333 Advanced Aircraft Performance
Description: A study of advanced aircraft performance including appropriate physical laws, atmospheric properties and power plant technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4343 Geospatial Technologies for Aerospace Managers
Description: Using geographic information systems (GIS) and other geospatial technologies to effectively manage airports, including project management, maintenance, safety and security, noise and obstruction management, and environmental management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4353 Cockpit Automation
Prerequisites: AVED 2133.
Description: A study of aircraft "glass cockpits", including performance management, navigation and guidance, automatic flight control, flight instrument displays, and crew advisory and warning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4413 Aviation Terrorism and Asymmetrical Warfare
Description: Origins of modern terrorism and asymmetrical warfare as it related to current aviation security issues. A historical perspective to the headlines of today providing an understanding needed in making future security decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4423 Aviation Security Organizations and Law
Description: Understanding how security systems and law are organized and managed. Problems facing security management, including recruiting, screening, and hiring of security personnel. Problems associated with 24/7 operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4433 Airport Safety Inspections
Description: Safety requirements of U.S. general aviation airports. Elements of the 5010 airport inspection program, FAA advisory circulars, and other pertinent documents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4513 Aviation Operations Management
Prerequisites: AVED 3513 and AVED 3573.
Description: Application of operational management theory and practices within the aviation/aerospace industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4523 Airport Certified Member Preparation
Prerequisites: AVED 3523.
Description: Course focus is to earn knowledge necessary to successfully complete the AAAE Certified Member (CM) designation examination. Comprehensive evaluation of airport management and leadership issues to include administration, air service development, construction, finance, legislative affairs, maintenance, marketing and communications, operations, planning, and security.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4571 FFA Airplane Single Engine Sea
Prerequisites: AVED 2313, FAA COMM ASEL.
Description: Course provides the knowledge and practical experience required to pass a COMMERCIAL Single Engine Sea (ASES) FAA practical examination to add the ASES rating to an existing COMMERCIAL Single Engine Land (ASEL) license. Requires flight instruction under FAA FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4643 Aviation Navigation Global Positioning Systems
Description: Overview of the theory and operation of the GPS in the private and public sector.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4653 International Aerospace Issues (G)
Description: Fundamental knowledge, comprehension and abilities to apply, analyze, synthesize and evaluate international aerospace issues, including trends in security, safety, technology, and organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension

AVED 4663 Aerospace Leadership
Description: Leadership theories and practices applicable to the aerospace environment and the types of leadership skills required for 21st Century aerospace organizational leaders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4703 Crew Resource Management
Prerequisites: AVED 2133 and AVED 2142.
Description: Discovering how resource management applies to crew behavior in aviation. Special emphasis on decision-making, judgment, teamwork, stress management, situation awareness, leadership, and workload management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4713 Unmanned Aircraft Pilot Laboratory
Prerequisites: AVED 1114.
Description: Aeronautical theory, information and piloting skills will be utilized for operating an unmanned aircraft safely, efficiently and within its specified limitations. Classroom and laboratory experiences are designed for the students to gain the necessary skills to operate an unmanned aircraft safely.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Educ Found Leadersh & Aviation

AVED 4771 Flight Instructor: Multi-Engine Flight Laboratory
Prerequisites: AVED 4232.
Description: Dual flight instruction to meet the requirement for adding a multi-engine flight instructor rating to the flight instructor certificate. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $260 applies.

AVED 4813 Air Transportation Compliance
Description: Regulatory requirements in the management of air transportation and logistics operations including the shipment of hazardous materials in domestic and international transport, U.S. Customs import/export compliance, and Transportation Safety Administration (TSA) requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4883 Capstone Course in Aviation Management
Prerequisites: Aviation Management major with senior status.
Description: Applies knowledge and issues obtained in prior aviation courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4943 Basic Aircraft Accident Investigation
Description: A study of statutes, regulations and regulatory agency requirements that influence aircraft accident investigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4953 Corporate and General Aviation Management
Description: Study of management principles and practices of corporate and general aviation. Equipment acquisition, legal requirements, government regulations, flight operations, aircraft maintenance, management and investment decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4963 Airport Design
Description: Overview of airport planning and development parameters, airport design considerations, economic impact of airport development, and a global examination of airport expansion projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4983 Aerospace Industry Hazardous Materials or Dangerous Goods
Description: Regulatory requirements and compliance issues in managing aerospace industry hazardous materials and dangerous goods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4990 Pilot Proficiency Flight
Description: Required for students entering the aviation education program who possess all FAA certificates/ratings required for the aviation sciences degree. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4993 Aviation Labor Relations
Description: Aviation industry laws, regulations, and procedures for management and organized labor from historical through current perspectives. Focus on economic, legal, political, and public policy factors in aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5000 Master's Report or Thesis
Prerequisites: Consent of adviser.
Description: Students studying for a master's degree enroll in this course for a total of 3 credit hours if writing a report or 6 hours if writing a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5020 Seminar in Aerospace Education
Prerequisites: Consent of instructor.
Description: Individual research problems in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5053 Guided Reading and Research
Prerequisites: Consent of instructor.
Description: Guidance in reading and research required for the MS in aviation and space program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5103 Aviation Career Development
Description: Aviation career development in private and public aviation organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5113 Aerospace Safety Programs
Prerequisites: AVED 4113.
Description: A detailed examination of risk management and accident prevention in the aerospace industry. Organization and operation of safety programs including OSHA requirements, performance measurements, cost analysis, and systems safety analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5153 Capstone in Aerospace Research
Prerequisites: AVED 5053.
Description: The final culminating project intended to be an in-depth application of the knowledge and skills acquired from the MS Aerospace Education curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5200 Graduate Internship in Aviation and Space
Description: Directed field experiences in aerospace education for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5203 Aeromedical Factors
Prerequisites: AVED 3243.
Description: The study of aeromedical factors that influence pilot performance. The study of life support equipment designed to increase aviation safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5303 Aviation and Space Quality Issues
Description: A study of the practice and research involved in implementing aviation and space quality issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5333 Aircraft Performance
Description: Operational flight performance issues, especially transition from propeller-driven to jet aircraft. Use of flight simulation software to determine optimal speeds for climb, descent, range and maximum endurance of a specific aircraft model.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5363 Aircraft Systems
Description: Flight management systems, data exchange busses, computerized flight control systems, airframe environmental systems, electrical, pressurization, fuel and icing. Earlier generation aircraft systems contrasted with modern aircraft systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5403 Passenger Screening Technology
Description: Understanding of the technologies currently in use or being tested in airports. Passenger screening technologies and their role in establishing a layered security program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5413 Landside Security Technologies
Description: Technologies available for protecting the landside of the airport. Access control systems, blast protection and mitigation planning, perimeter security technologies and biometric technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5423 Security Planning Audits and NIMS
Description: The management of a security program. Written security plans, security audits, emergency management, and the National Incident Management System.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5433 General Aviation and Cargo Security
Description: Overview of airport operations: regulatory history of air transportation, aviation forecasting, capacity and delay issues at airports, environmental issues, airport emergency procedures and aircraft rescue and fire-fighting, and airport system and master planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5443 International Aviation Security
Description: Civil aviation security structure required of all airports and airlines engaged in international civil aviation operations. Focuses on the requirements of the International Civil Aviation Organization, specifically ICAO Annex 17.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5453 Advanced Aviation Security
Prerequisites: Graduate standing.
Description: In-depth look at aviation security. Development of a greater understanding of problems associated with maintaining a secure aviation transportation industry. Familiarity with the history of attacks against aircraft, airports and other aviation facilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5463 Aerospace Risk Assessment
Description: The risks, threats, and vulnerabilities associated with aviation/aerospace assets, and associated decision-making processes. Risk management principles and utilizing cost-benefit analysis and other tools and methodologies applicable to aviation and aerospace challenges.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5473 Aerospace Education and Training Effectiveness
Description: Curriculum design and instructional effectiveness for aviation/aerospace educators and training professionals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5543 Advanced Aerospace Communications
Description: Interdisciplinary area of study drawing from previous knowledge and experience in effective management and leadership communication to meet the unique demands of the field of aviation. A broad range of academic disciplines and technical experience guiding aviation professionals in the refinement of personal, team and organizational communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5553 Aerospace Proposal and Procurement
Description: Analysis of aerospace proposal writing and federal grant development including the basics of government acquisition and procurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5563 Aerospace Leadership and Management
Description: Introductory course on leadership and management issues in the highly volatile aerospace environment. Introduction to management and leadership theory of the past, and exploration of the aviation environment of the future.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5573 Aerospace Defense Acquisition
Description: Analysis of the Department of Defense (DoD) acquisition process, including the basics of acquisition management and the life cycle of a defense contract from inception to disposal. Phases of acquisition include: concept exploration, development, production, fielding and deployment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5593 Influencing Public Policy in the Aerospace Industry
Description: The aerospace legislative process, researching draft legislation, tracking state and federal legislation, communicating with legislators identifying the fiscal impact and benefits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5663 Issues in the Airline/Aerospace Industry
Description: The components, participants, activities, characteristics, scope and economic significance of the air carrier industry and its major segments. The effects of regulation, competition, marketing, manufacturing and environmental control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5720 Current Issues in Aerospace Education
Prerequisites: Consent of instructor.
Description: Current issues in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5773 Historical Significance of Aviation
Description: Humankind's attempt to conquer the skies from the earliest accomplishments in aviation to the aircraft of tomorrow. Profiles the way people, technology, and events have shaped the modern world of aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5783 History of Human Space Flight
Description: A historical view of human space flight starting in the 1950s with the Space Race to the early 2010s when the Space Shuttle was retired. Topics span the start of the Space Race, JFK's charge to put a human on the Moon, the Mercury, Gemini, and Apollo programs, space stations (with a focus on the International Space Station), and the Space Shuttle program. Emphasis will be placed on an examination of the people and technological advancements involved in space flight.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5793 Future of Space Flight
Description: An examination of NASA's and other space agencies' plans for future space flight, including both human missions and robotic missions. Includes an overview of commercial space flight, its beginnings and current endeavors, as well as theoretical examination of the logistical issues regarding the colonization of the Moon, Mars, or other planetary bodies. Emphasis will be placed on an examination of the people and technological advancements needed for future space flights.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5813 Earth Observation Systems
Prerequisites: GEOG 4333.
Description: A study of systems orbiting earth that collect data on the land and atmosphere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5823 Space Science
Description: A study of the sun, inner and outer planets, asteroid belt, space probe exploration, orbital mechanics and missions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5850 Directed Readings in Aerospace Education
Prerequisites: Consent of instructor.
Description: Directed studies in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5883 Aviation Economics
Description: The economic significance of the air carrier industry and its major segments. The effects of regulation, competition, schedules, marketing and environmental control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5893 Aerospace Executive Decision Making
Description: Application of concepts and lessons of executive decision leadership within the context of the aerospace environment. Utilization of problem solving skills and leadership lessons of the 21st century aerospace leader.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5910 Practicum in Aerospace Education
Prerequisites: Consent of instructor.
Description: Directed observation and supervised clinical experiences in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5953 Labor Relations in Aviation and Aerospace
Description: Labor laws, regulations, and labor-management relations in the U.S. aviation and aerospace industry, underlying the air carriers, public airport infrastructure, and related government employers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5963 Airport Operations
Prerequisites: Graduate standing.
Description: Extensive overview of airport operations. Familiarity with the regulatory history of air transportation, airports, the Federal Aviation Administration, and the Transportation Security Agency. Introduction to a wide variety of organizational structures found at U.S. airports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5973 Aerospace Law
Description: Study of the legal system as it relates to aerospace law and governance of the aviation industry. Previously offered as AVED 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5993 Ethics in Aviation
Description: Learning how to protect vital interests and maintain ethical control in highly regulated environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6000 Doctoral Thesis
Description: Required of all candidates for the EdD in applied educational studies. Credit awarded upon completion of the thesis. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 6103 Doctoral Seminar in Aerospace Education
Description: Individual research problems in aerospace education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6203 Aviation Physiology
Prerequisites: AVED 5203 or equivalent.
Description: The study of the complexities of pilot performance as it relates to human physiology, human factors and aviation safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6303 The Application of Qualitative Methods in Aviation Research
Description: An examination of the application of qualitative research methodologies and associated field work with an emphasis in aviation and aerospace.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6313 Administration of Aviation Institutions
Description: A study of the organization and administration of public and private aviation institutions. Study of the impact of economic and governmental system on these institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6413 Development of Air and Space Flight
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6423 Certification of Airplanes
Description: A study of the practices and research involved in the certification of airplanes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6443 Certification of Rotorcraft
Description: A study of the practices and research involved in the certification of rotorcraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6553 Foundations of Airline Executive Leadership
Description: History of airline leaders who had a significant impact on the U.S. air transportation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6613 Aviation Executive Development
Description: A study of the styles of aviation executives in private and public aviation organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6773 Applied Aviation and Space Research
Prerequisites: Consent of instructor and approval of student's advisory committee.
Description: Action research topics in aviation and space identified by the aerospace industry with emphasis upon publications in aviation and space refereed journals and trade publications. Previously offered as AVED 6774.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6883 Doctoral Internship in Aviation and Space
Prerequisites: Consent and approval of student's advisory committee.
Description: Directed field experiences in aerospace education for doctoral students. Previously offered as AVED 6880.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6943 Aviation Regulatory Law
Description: A study of the practical application and research of the FAA regulatory process and associated case law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6963 Advanced Aircraft Accident Investigation
Prerequisites: AVED 4943.
Description: Application and practice of the different statutes, regulations, and regulatory agency requirements that influence aircraft accident investigations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

Biochemistry (BIOC)

BIOC 1113 Drugs, Medications and Human Well-Being (N)
Description: Influence of medications and illegal drugs on our health. Explores the medications used to treat cancers, diabetes, microbial infections, heart and mental diseases. Abused drugs, such as alcohol, caffeine, opioids and cannabis and their effects are also covered. Course is designed for non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOC 1990 Freshman Research in Biochemistry and Molecular Biology
Description: An introduction to biochemical research through guided work on a relevant experimental problem. Offered for variable credit, 1-2 credits, max 2.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 2101 The Experiments Behind the Facts of Real Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1515.
Description: Introduction to research though the study of primary research papers.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2202 Medicine and Molecules
Description: Examination of specific diseases at all scales, from the biology of the causal agent to global impacts. The molecular biology of the agent, interactions with the human body, and the etiology, epidemiology, history and current state of the disease, ethical considerations, and prospects and cures.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2344 Chemistry and Applications of Biomolecules
Prerequisites: CHEM 1225 or CHEM 1515.
Description: A descriptive survey of organic functional groups and biomolecules. Mode of formation and function of these molecules in microorganisms, plants and animals as they relate to biotechnology, environmental sciences and health related issues. A terminal course for students in applied biological science education. Not recommended for pre-professional students or students planning graduate study in biological sciences.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Biochem & Molecular Biology

BIOC 2352 Fundamental Biochemistry
Prerequisites: BIOC 1114 and CHEM 1515.
Description: Connect knowledge of organic chemistry to biochemistry to better understand and appreciate the chemical principles in forming bimolecular structures and functions.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Honors Credit

BIOC 3003 Hypothesis-Driven Undergraduate Research
Prerequisites: Consent of instructor.
Description: Directed research projects with faculty members in biochemistry and molecular biology. Identify a research question, develop a hypothesis, experimental approach, perform the experiments, and summarize their results in oral and written forms.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 3153 Synthetic Biology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Engineering of living systems at the molecular, cellular, and organismal levels: Origin of cellular life; reading and writing DNA; enzyme evolution; metabolic engineering. Applications to current and future biotechnologies in agriculture and medicine: Food and drug synthesis; biofuels; vaccines. This cross-listed course is designed to satisfy upper division elective requirements for students majoring in biochemistry or microbiology. Same course as MICR 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3162 Synthetic Biology Laboratory Course
Prerequisites: BIOL 1114 or BIOL 1111 and BIOL 1113 and CHEM 1515
Description: Computer and laboratory excises in synthetic biology including design of genetic circuits, CRISPR-Cas systems. Students will create and test these designs using industry-standard molecular biology techniques. Students are strongly encouraged to co-enroll in BIOC/MICR 3153 using the appropriate prefix according to their major. Same course as MICR 3162.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 3223 Physical Chemistry for Biologists
Prerequisites: CHEM 1515, (MATH 2123 or MATH 2144), and (PHYS 1114 or PHYS 2014) or consent of instructor.
Description: Classical and statistical thermodynamics with applications to pure systems, solutions and electrochemistry; transport; chemical and enzyme kinetics, quantum chemistry of structure and chemical bond; and spectroscopy all with emphasis on biological applications. Previously offered as BIOC 4224 and BIOC 3224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3523 Biochemistry of Disease at the Cellular Level
Prerequisites: BIOC 3653 or BIOC 3713 and MICR 3033 and BIOL 3023 or ANSI 3423 or PLNT 3554 or consent of instructor.
Description: The biochemistry of fundamental processes in normal and disease states of eukaryotic cells. Explores the cell and molecular, and biochemical mechanisms of intracellular protein trafficking, cytoskeleton, cell adhesion, mitosis, cell cycle, cytokinesis, cellular stress responses, and apoptosis and in a variety of diseases including cancers, progeria (premature aging), Alzheimer's, Amyotrophic lateral sclerosis (ALS), high cholesterol, and diabetes. May not be used for Degree Credit with BIOC 5523. Previously offered as BIOC 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3653 Survey of Biochemistry
Prerequisites: CHEM 3013 or CHEM 3053.
Description: An introduction to the chemistry of living systems. Chemical properties of the constituents of living organisms. Modes of formation, reactions and function of these compounds in microorganisms, plants and animals. Intended for non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3713 Biochemistry I
Prerequisites: CHEM 3053.
Description: Biochemistry of nucleic acids, proteins, amino acids, carbohydrates, and lipids with an emphasis on the kinetics, thermodynamics, catalytic and regulatory strategies of biochemical reactions and bioenergetics. Designed for biochemistry majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3723 Biochemistry and Molecular Biology Laboratory
Prerequisites: BIOC 3653 or BIOC 3713 or concurrent enrollment.
Description: Integrated lecture-laboratory course on fundamental theories and techniques in biochemical, forensic, and clinical research. Hands-on experience in mass spectrometry, DNA analysis, metabolic assays, kinetic assays, and protein purification. Previously offered as BIOC 3720.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biochem & Molecular Biology

BIOC 3813 Biochemistry II
Prerequisites: BIOC 3713.
Description: Continuation of Biochemistry I with focus on metabolic pathways, cycles, and control mechanisms. This course will cover bioenergetics and metabolism of carbohydrates, lipids, amino acids and nucleotides. Designed for biochemistry majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3890 Advance Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Honors Credit

BIOC 4013 Biotechnology Development and Implementation
Prerequisites: BIOC 3653 or BIOC 3713 or consent of instructor.
Description: An overview of emerging biotechnology in medicine and agriculture including gene therapy, immunotherapy, antibody-drug conjugates, and genome-editing technologies. Also includes an introduction to the global biotechnology industry, idea generation, intellectual property protection, finance, and regulation and policies within the industry. May not be used for degree credit with BIOC 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4023 Molecular Biology and Stress Response of Plants
Prerequisites: BIOL 1113 or BIOC 3713 or PLNT 3554
Description: Topics cover the cutting-edge research areas including second messengers, phytohormones, signal transduction, microbiome, plant-microbe interactions, plant responses to climate change with focus on plant molecular biology and plant responses to biotic and abiotic stresses and their application in solving agricultural problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4113 Molecular Biology
Prerequisites: BIOC 3653 or BIOC 3713 and BIOL 3023 or ANSI 3423 or PLNT 3554.
Description: Applications of biochemistry, molecular biology and genetic engineering with emphasis on protein structure and function, regulation of cell function, metabolism and disease processes. May not be used for Degree Credit with BIOC 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4213 Disease and Metabolism
Prerequisites: BIOC 3653 or BIOC 3713 or concurrent enrollment
Description: Introduction to the causes, preventions and treatments for human diseases including obesity, diabetes, atherosclerosis, cancer and aging. Emphasis on the pathogenesis and the cross-talks between metabolic pathways at system level. May not be used for degree credit with BIOC 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4313 Cancer Immunology and Immunotherapy
Prerequisites: BIOC 3713 or BIOC 3653 or consent of instructor
Description: Interaction between cancers and the immune system and current immune based biotechnology tools for treatments. Basic immunology and cancer biology, interactions between the immune system and cancers and current immunological therapies in cancers. Functioning of the immune system, genesis and development of cancers, and links between these two systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4413 Plant and Soil Microbiomes Can Help Feed the World
Prerequisites: (BIOC 3653 or BIOC 3713) and BIOL 3023 or consent of instructor
Description: Introduction and profiling of plant and soil microbiomes; identifying microbes with agronomic traits that improve crop productivity and support food production; nutrient cycling; and bioremediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4723 Introduction to Bioinformatics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and MATH 1513.
Description: Providing an introduction to programming for those intending to work with large biological datasets. This course covers the basics of Shell programming, scripting languages and examples of using software and packages. May not be used for Degree Credit with BIOC 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4883 Senior Seminar in Biochemistry
Prerequisites: BIOC 3813 or concurrent enrollment or consent of instructor and senior standing.
Description: A senior capstone course for the development of scientific verbal and written communications and assessment of cumulative abilities. Focus is on problem solving, group discussion, primary literature review, oral presentation, and writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4990 Undergraduate Research
Description: Training in independent work, study of relevant literature and experimental investigation of an assigned problem. Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 5000 Research
Description: For MS thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 5002 Research Compliance and Biochemistry Graduate Colloquium
Prerequisites: Graduate standing.
Description: Introduction to graduate research. Policies for laboratory safety, research compliance, and ethical conduct of scientific research are presented.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5013 Biotechnology Development and Implementation
Prerequisites: (BIOC 3653 or BIOC 3713) and BIOL 3023 or consent of instructor.
Description: An overview of emerging biotechnology in medicine and agriculture including gene therapy, immunotherapy, antibody-drug conjugates, and genome-editing technologies. Also includes an introduction to the global biotechnology industry, idea generation, intellectual property protection, finance, and regulation and policies within this industry. May not be used for degree credit with BIOC 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5102 Molecular Genetics
Prerequisites: BIOC 3653 or MICR 3033 and one course in genetics or consent of instructor.
Description: An introduction to molecular genetics on the graduate level. Same course as GENE 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5112 Articulation of Research Logic
Prerequisites: BIOC 5753 or equivalent or permission of instructor.
Description: Techniques for effective communication of scientific reasoning, logic, and critical thinking. Explanation of rationale, hypotheses, and experimental design. Public presentations as logical arguments. The course focuses on biomolecular systems.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5113 Molecular Biology
Prerequisites: BIOC 3653 or BIOC 3713 and BIOL 3023 or ANSI 3423 or PLNT 3554.
Description: Applications of biochemistry, molecular biology and genetic engineering with emphasis on protein structure and function, regulation of cell function, metabolism and disease processes. May not be used for degree credit with BIOC 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5120 Biochemistry and Molecular Biology Graduate Research Colloquium
Prerequisites: Graduate standing.
Description: Students will provide presentations to demonstrate their mastery of research literature, new research results, explanations for research roadblocks, and their ability to synthesize new knowledge and draw conclusions. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5213 Disease and Metabolism
Prerequisites: Graduate standing.
Description: Introduction to the causes, preventions and treatments for human diseases including obesity, diabetes, atherosclerosis, cancer and aging. Emphasis on the pathogenesis and the cross-talks between metabolic pathways at system level. May not be used for degree credit with BIOC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5313 Cancer Immunology and Immunotherapy
Prerequisites: BIOC 3713 or BIOC 3653 or consent of instructor
Description: Interaction between cancers and the immune system and current immune based biotechnology tools for treatments. Basic immunology and cancer biology, interactions between the immune system and cancers and current immunological therapies in cancers. Functioning of the immune system, genesis and development of cancers, and links between these two systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5523 Biochemistry of the Cell
Prerequisites: BIOC 3653 or BIOC 3713 and MICR 3033 and BIOL 3023 or ANSI 3423 or PLNT 3554 or consent of instructor.
Description: The biochemistry of fundamental processes in normal and disease states of eukaryotic cells. Primary literature based experimental approaches to the mechanisms of intracellular protein trafficking, cytoskeleton, cell adhesion, mitosis, cell cycle, cytokinesis, and apoptosis. May not be used for degree credit with BIOC 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5553 Agricultural Biochemistry
Prerequisites: CHEM 3153 or equivalent.
Description: Organism function at the biochemical level and how this relates to the more complex biological systems of plants and animals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5723 Introduction to Bioinformatics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and MATH 1513.
Description: Providing an introduction to programming for those intending to work with large biological datasets. This course covers the basics of Shell programming, scripting languages and examples of using software and packages. May not be used for degree credit with BIOC 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5753 Biochemical Principles
Prerequisites: CHEM 3153 or equivalent.
Description: Chemistry of cellular constituents; introduction to the chemical processes in living systems. The first in a series of courses for graduate students in biochemistry and related fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5824 Biochemical Laboratory Methods
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Lecture and laboratory course in basic biochemistry and molecular biology methods for separation and analysis of biological materials, including chromatography, electrophoresis, centrifugation, use of radioisotopes, molecular cloning and DNA sequencing.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Graduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 5853 Molecular and Integrative Metabolism
Prerequisites: BIOC 5753 or BIOC 4113.
Description: Reaction sequences and cycles in the enzymatic transformations of fats, proteins and carbohydrates; energy transfer, biosynthesis and integration in the metabolic pathways.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5930 Advanced Biochemical Techniques
Prerequisites: BIOC 5753, BIOC 5824 or concurrent registration, and consent of instructor.
Description: Lecture and laboratory course in advanced research techniques, designed to supplement BIOC 5824. In subsequent semesters, individual research problems pursued in laboratories of department faculty for six weeks and one credit hour each. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6000 Research
Description: For PhD dissertation. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6110 Seminar
Description: Maximum 2 for PhD or 1 for MS candidates. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6663 Molecular Plant-Microbe Interactions
Prerequisites: PLP 3343 and BIOC 3653.
Description: Focused on the biochemistry, molecular biology and molecular genetics of pathogenic and symbiotic interactions between microbes and plants to explain the mechanisms by which microbe's infection and activation of plant immunity and symbiosis signaling pathways. Same course as PLP 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6723 Signal Transduction
Description: Classical signal transduction mechanisms including MAP kinase signaling cascades, Protein kinase A, Protein kinase C pathways, JAK/STAT pathways, calcium signaling, the cell cycle, programmed cell death, and cell signaling in cancer. Strong focus on the primary literature and experimental strategies used in modern cell biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6733 Functional Genomics
Prerequisites: BIOC 3653 or BIOC 3713 and BIOC 3813 or BIOC 5753 or consent of instructor.
Description: Principles and techniques of genomics technologies and their applications in basic science and applied animal and plant research. Genome sequencing, variation detection, transcriptomics, proteomics, metabolomics, metagenomics, systems biology, forward and reverse genetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6740 Physical Biochemistry
Prerequisites: One semester each of biochemistry, calculus and physical chemistry.
Description: Two independent modules dealing with applications of physical chemistry and math to biological phenomena: 1) numerical analyses and selected spectroscopic methods, and 2) thermodynamics and transport properties. Modules may be taken together as two credits or individually for one credit. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6753 Epigenetics
Prerequisites: BIOC 5102 or BIOC 5753 or consent of instructor.
Description: Principles underlying heritable changes in gene expression caused by mechanisms other than changes in the DNA sequence. The roles of chromatin structure, DNA and histone modification, and small RNAs in plant and animal development and disease. Applications of epigenetic-based therapeutics and the use of RNA interference in plants and animals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6763 Nucleic Acids and Protein Synthesis
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Structure and biological function of nucleic acid containing structures with emphasis on recombinant DNA methodologies, information content, nucleic acid-protein interaction, regulation and rearrangement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6773 Protein Structure and Enzyme Function
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Theory of and methods for studying the physical and chemical basis of protein structure and function; and the enzyme catalysis, including kinetics, chemical modification and model studies. Examples from current literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6783 Biomembranes and Bioenergetics
Prerequisites: BIOC 5853 or consent of instructor.
Description: Components, organization and biosynthesis of plasma, mitochondrial and photosynthetic membranes, emphasizing structure-function relationships. Mechanism of metabolites, protons and electrons transport. Energy conservation in bioenergetic apparatus such as mitochondria, chloroplasts or bacterial chromatophores.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6793 Plant Biochemistry
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Biochemistry of processes and structures of special importance to plants, such as photosynthesis, cell walls, nitrogen fixation, secondary metabolites and storage proteins. Previously offered as BIOC 6792.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6820 Selected Topics in Biochemistry
Prerequisites: BIOC 5853.
Description: Recent developments in biochemistry. Subject matter varies from semester to semester; students should inquire at the department office before enrolling. Same course as ITOX 6820. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6823 Quantitative Methods in Omics
Prerequisites: BIOC 1114 and MATH 1513.
Description: Statistical, computational and algorithmic components applied in genomics technologies including theories in quantitative genetics in QTL mapping and Genome-wide Association studies (GWAS), differential analysis based on read-count information and multi-dimensional module/network analysis, graph theories, hidden Markov Models and deep learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

Biology (BIOL)

BIOL 1111 Introductory Biology Laboratory (LN)
Prerequisites: BIOL 1113 or concurrent.
Description: Provides students with authentic research experiences in which they design, conduct, and report on the results of extended investigations over topics introduced in BIOL 1113. Recommended for science and non-science majors.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

BIOL 1113 Introductory Biology (N)
Description: Introduction to the integration between structure and function among all levels of biological organization. Application of principles of evolution, genetics, physiology and ecology to understanding the integrated and interdependent nature of living systems through discussions emphasizing the process of science. Discussions include current issues, local research, observations, and investigations. Recommended for science and non-science majors. Concurrent enrollment in BIOL 1111 Introductory Biology Laboratory is highly recommended. May not be used for degree credit with BIOL 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 1114 Introductory Biology (LN)
Description: Introduction to the integration between structure and function among all levels of biological organization. Application of principles of evolution, genetics, physiology and ecology to understanding the integrated and interdependent nature of living systems through discussions emphasizing the process of science. Current issues and local research and observation and investigation in both lecture and lab. Recommended for non-science and science majors. Course previously offered as BISC 1114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

BIOL 1604 Animal Biology
Prerequisites: Completion of BIOL 1114 or BIOL 1113 and (BIOL 1111 or concurrent enrollment), or acceptable AP credit.
Description: Morphology, physiology, ecology, life histories and importance of representatives of major groups to humans. Evolution of systems and mechanisms which have allowed animals to survive and adapt to diverse habitats. Previously offered as ZOOL 1604.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 2003 Biology for the Informed Citizen (N)
Description: This course teaches students how to find reliable answers to biological questions and arrive at informed decisions in their everyday lives. The course will use current issues (e.g., cancer, pollution) to convey fundamental biological concepts. Performance will be assessed via exams, and students will complete a small independent research project on a topic of their choice for a hands-on experience of the scientific process (study design to presentation). Brief lectures interspersed with short discussions or documentaries encompass a typical class meeting. Not an alternative to Intro Biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 2890 Honors Experience in Integrative Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL course.
Description: A supplemental Honors experience in Integrative Biology to partner concurrently with designated BIOL course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 3023 General Genetics
Prerequisites: "C" or better in CHEM 3013 or CHEM 3053 or MICR 2123 or MICR 3033 or PBIO 2403.
Description: Inheritance in plants, animals, and microorganisms; molecular and classical aspects. Previously offered as BIOL 3024 and BISC 3024.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3034 General Ecology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent and (PBIO 1404 or BIOL 1604 or equivalent) and MATH 1513 or higher.
Description: An overview of the study of organisms interacting with each other and their environment at individual, population, community, and ecosystem levels of organization. Includes human interaction with ecological systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3053 Freshwater: Concepts, Threats and Management (N)
Description: Freshwater is a critical, non-substitutable resource. Do we have enough? How are we going to manage it? This course will introduce non-biology majors to the concepts, threats, and policy relevant to freshwaters using information published in the popular science press. Issues directly relevant to Oklahoma, and the U.S. will be discussed. Debates modeled using the legal system of policy formulation will promote critical thought and communication skills in an exciting real-world milieu. ZOOL and PHSL majors may count as elective hours only. Previously offered as ZOOL 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3104 Invertebrate Zoology
Prerequisites: BIOL 1604.
Description: Morphology, physiology, reproduction and ecology of major invertebrate groups. Previously offered as ZOOL 3104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3113 Human Evolution (N)
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) strongly recommended.
Description: Overview of how evolution shapes human biology. Topics include evolutionary mechanisms, human genetic variation and health, primate diversity, the fossil record, and the origins, dispersal, and behavior of anatomically modern humans. ZOOL and PHSL majors may count as elective hours only. Previously offered as ZOOL 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3114 Vertebrate Zoology
Prerequisites: BIOL 1604.
Description: Comparative morphology of representative vertebrates with emphasis on phylogeny and ontogeny and consideration of histology and function. Previously offered as ZOOL 3114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3123 Human Heredity (N)
Description: The impact of genetics on human endeavor. Not recommended for students with prior credit in BIOL 3023. BIO, PHSL and ZOOL majors may count as elective hours only. Previously offered as ZOOL 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3153 Animal Behavior
Prerequisites: Junior standing.
Description: Survey of theory and application in basic and applied animal behavior. Interdisciplinary analysis of animal behavior in the field, captive settings and laboratories. Previously offered as ZOOL 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3163 Environmental Biology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and (CHEM 1215 or CHEM 1314).
Description: Overview of how organisms are influenced by the environment in which they live and how anthropogenic activities impact their environment. Topics include impacts of disturbing energy and material cycles, toxicological disease, and infectious disease. Previously offered as ZOOL 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3204 Physiology
Prerequisites: "C" or better in both BIOL 1114 or (BIOL 1113 and BIOL 1111) and (CHEM 1215 or CHEM 1314 or CHEM 1414).
Description: Anatomy and function of the human body. Human and domestic animal physiology considered in laboratories. Previously offered as ZOOL 3204.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3214 Human Anatomy
Prerequisites: "C" or better in either BIOL 1604 or BIOL 3204.
Description: Gross anatomy of the human body and its systems with a minor emphasis on histology. Laboratory based on human models and comparisons with dissections of nonhuman mammals. Previously offered as ZOOL 3214.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3233 Human Reproduction
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Overview of human reproduction, including conception, pregnancy, childbirth, sexual maturation, and parental investment in offspring. Draws from multiple fields such as genetics, anatomy and physiology, developmental biology and evolutionary theory. Previously offered as ZOOL 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3513 Principles of Conservation Biology
Prerequisites: Sophomore standing and BIOL 1604 or PBIO 1404.
Description: A scientific foundation of conservation biology through the study of the importance of conservation in society, the role of conservation policy, protected areas, and planning, and the future of conservation biology. Topics covered include Ecology, Evolution, and Genetics. Previously offered as ZOOL 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3604 Biological Principles for Teachers
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and BIOL 3204 and CHEM 1314.
Description: Capstone course in biology for potential science teachers. Review of biological phenomena and principles as related to the curriculum. Course previously offered as BISC 3604.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3700 Readings and Special Studies in Integrative Biology
Prerequisites: BIOL 1604 and consent of instructor.
Description: Discussion of selected readings. Previously offered as ZOOL 3700. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

BIOL 3890 Advanced Honors Experience in Integrative Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL course.
Description: A supplemental Honors experience in Integrative Biology to partner concurrently with designated upper-division BIOL course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 3933 Research Methods
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and (MATH 1613 or higher) and (STAT 2013 or STAT 4013).
Description: Students perform independent inquiries and learn to use skills from science to solve research problems. Students will design experiments, collect and analyze data, formulate hypotheses, justify conclusions, create models, read and evaluate the research literature, and write and present research reports.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4024 Histology
Prerequisites: BIOL 3114, BIOL 3204, or BIOL 3214.
Description: The study of cellular composition and functional components of tissues. With an emphasis in vertebrates, the course is a survey of the microanatomy and function of tissues such as epithelial, connective, muscular, and nervous. May not be used for degree credit with BIOL 5024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4073 Principles of Neuroscience
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and either (CHEM 1215, CHEM 1314, or CHEM 1414).
Description: Neuroscience is an interdisciplinary field focused on understanding the structure and function of the brain, spinal cord, and peripheral nervous system. Course examines theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions. Previous coursework in physiology recommended. Same course as PSYC 4073. May not be used for degree credit with BIOL 5073 or PSYC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4104 General Parasitology
Prerequisites: BIOL 1604.
Description: Fundamentals of parasitism with emphasis on: life cycles, disease conditions, epidemiology, diagnosis, treatment, historical significance, terminology, taxonomy, and parasitological techniques. Previously offered as ZOOL 4104. May not be used for degree credit with BIOL 5104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4113 Conservation Genetics
Prerequisites: (BIOL 3023 or equivalent) and MATH 1513.
Description: Principles of population genetics as they pertain to issues in conservation biology. Evolutionary relationships, hybridization, natural selection, factors affecting small populations, gene flow, captive populations, and metapopulations. No credit for students with credit in BIOL 5113. Previously offered as ZOOL 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4133 Evolution
Prerequisites: BIOL 3023.
Description: Development of the evolutionary concept; speciation evolutionary mechanisms and phylogenetic concepts. May not be used for degree credit with BIOL 5033. Previously offered as ZOOL 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4134 Embryology
Prerequisites: BIOL 1604 and CHEM 1515.
Description: Biochemical basis of development with emphasis on gene regulation. Comparative development of sea urchin, frog, chick and pig. Experiments using frog and mouse, including the molecular level. Previously offered as ZOOL 4134. May not be used for degree credit with BIOL 5134.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4174 Mammalogy
Prerequisites: "C" or better in BIOL 1604 and (BIOL 3034 or NREM 3013).
Description: Taxonomy, identification, evolution, zoogeography, life history traits, and techniques of study of wild mammals. Weekend field trips required. May not be used for degree credit with BIOL 5174. Previously offered as ZOOL 4174.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $5 applies.

BIOL 4184 Herpetology
Prerequisites: BIOL 1604.
Description: The biology of amphibians and reptiles with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on Oklahoma species. Offered spring semester of even-numbered years. Weekend field trips required. May not be used for degree credit with BIOL 5184.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $125 applies.

BIOL 4215 Mammalian Physiology
Prerequisites: "C" or better in both BIOL 3204 and (CHEM 3013 or CHEM 3053).
Description: Descriptive and functional analysis of the mammalian nervous, cardiovascular, musculoskeletal, respiratory, renal, endocrine, and digestive organ systems. For majors in human and animal sciences, particularly pre-medical, pre-dental, and pre-veterinary tracks. May not be used for degree credit with BIOL 5215. Previously offered as ZOOL 4215.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4223 Mammalian Physiology Capstone Laboratory
Prerequisites: "C" or better in BIOL 4215 or ZOOL 4215.
Description: Laboratory experiments that illustrate functions of organs, organ systems or mechanisms of whole body physiological control. A unique Capstone Experience for Physiology majors. Restricted to declared Physiology majors in the Department of Integrative Biology. Previously offered as ZOOL 4223.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4253 Pharmacology
Prerequisites: "C" or better in either BIOL 3204 or BIOL 4215; Biochemistry strongly suggested.
Description: Major drug classes based on their predominant use or principal activity in the body; basis for drug action; and modification of drugs and their action by physiological processes. May not be used for degree credit with BIOL 5253. Previously offered as ZOOL 4243 and BIOL 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4273 Environmental Physiology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: The study of animal adaptation and responses to natural environments. Topics include marine, shoreline, freshwater, and terrestrial habitats as well as anthropogenic problems specific to these habitats. No credit for students with credit in BIOL 5273. Previously offered as ZOOL 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4283 Endocrinology
Prerequisites: "C" or better in (BIOL 3204 or BIOL 4215) and credit in (CHEM 3013 or CHEM 3053 or consent of instructor).
Description: Examination of the hormonal control and regulation of physiological processes in vertebrates. Function of the hypothalamus, pituitary, adrenal, thyroid, pancreas, ovary and testes. May not be used for degree credit with BIOL 5283. Previously offered as ZOOL 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4293 Behavioral Neuroendocrinology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: Examination of the influences of nervous and endocrine systems on behavior, and vice-versa, in vertebrates, including humans. Historical roots and current techniques relating to topics, including male and female reproductive behavior patterns, sex differences in behavior and neuroendocrine causation. No credit for students with credit in BIOL 5293. Previously offered as ZOOL 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4303 Organismal Ecotoxicology
Prerequisites: Junior standing and BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent and (CHEM 1215 or CHEM 1314).
Description: Comparative study of the major groups of environmental contaminants (e.g. heavy metals, PCB's, insecticides) and an introduction to the basic theories, principles and techniques associated with the study of contaminant fate and effects on organisms. No credit for students with credit in BIOL 5303. Same course as BIOL 5303 and ITOX 5303. Previously offered as ZOOL 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4313 Animal Communication
Prerequisites: Junior standing.
Description: Mechanisms, function and evolution of animal communication systems. Emphasis on the function of sensory systems, signal production mechanisms, theories of signal design and optimal signaling strategies, and current research on signaling behavior and its evolution in wild animals. A course in animal behavior or evolution recommended. May not be used for degree credit with BIOL 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4333 Disease Ecology
Prerequisites: BIOL 1113 or BIOL 1114 and junior standing.
Description: Understanding the ecology and evolution of pathogens and host-parasite relationships. This course will cover topics from the evolution of virulence and antibiotic resistance to globalization, emerging infectious diseases, and the factors driving increased pandemic risk. May not be used for degree credit with BIOL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4363 Principles of Toxicology
Prerequisites: BIOL 3204 and (CHEM 1215 or CHEM 1314).
Description: Basic concepts in toxicology such as chemical partitioning, dose response, toxicokinetics, toxicodynamics, and bioavailability. It will focus on the molecular and cellular mechanisms of toxicity of a few representative natural and man-made compounds. Case studies used to understand real-life scenarios. No credit for students with credit in BIOL 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4413 Biology of Fishes
Prerequisites: BIOL 1604.
Description: Ecology and evolution of fishes with particular emphasis on physiology, morphology, behavior, and taxonomy; laboratory emphasis on Oklahoma species. Weekend field trips required. May not be used for degree credit with BIOL 4413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $48 applies.

BIOL 4434 Limnology
Prerequisites: BIOL 3034 or (NREM 3012 and NREM 3013).
Description: This course provides an overview of the physical, chemical, and biological characteristics of inland habitats including lakes, reservoirs, streams, and wetlands. Field trips required. May not be used for degree credit with BIOL 5434. Previously offered as ZOOL 4434.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4464 Ornithology
Prerequisites: BIOL 1604.
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. Same course as NREM 4464. May not be used for degree credit with BIOL 5464 or NREM 5464. Previously offered as ZOOL 4464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4484 Animal Locomotion
Prerequisites: BIOL 1604.
Description: How do animals move? How does this motion change based on environment? How has such motion evolved across groups? This course will explore the relationship of body form to locomotion. We will focus on all types of animals, which represent a broad diversity of types of locomotion (e.g. flying, swimming, jumping), environments (e.g. air, land, water), and scales of body size (i.e. from single cells to whales). A laboratory will serve to introduce students to the methods and technology used in studying locomotion. May not be used for degree credit with BIOL 5484.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. No credit for students with credit in BIOL 5524, MICR 5524, PBIO 5524. Same course as PBIO 4524 and MICR 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4700 Undergraduate Research Problems
Prerequisites: Consent of instructor.
Description: Participation in faculty research or execution of a problem formulated by the student. Project will include the communication of research results in written and/or oral form. Previously offered as ZOOL 4700. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4710 Internships in Integrative Biology
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Life Sciences related professional work setting. Graded on a pass-fail basis. Previously offered as ZOOL 4710. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4730 Collaborative Research in Integrative Biology
Prerequisites: BIOL 1604.
Description: Small teams of students work closely with faculty to design, develop, implement, and present authentic research projects. Topics of research will vary each semester based on the research interests of faculty leading the course.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4750 Honors Study in Integrative Biology
Prerequisites: Honors Program participation.
Description: Individual study in the development of biological concepts. Extensive reading, literature search and special experimentation. An individual problems course for the gifted student. Previously offered as ZOOL 4750. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 5000 Research for Master's Thesis
Description: Independent research for the MS Thesis under the supervision of graduate faculty member. Previously offered as ZOOL 5000. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5003 Graduate Orientation and Academic Development
Prerequisites: Admission to Integrative Biology graduate program or instructor approval.
Description: Prepare first year Integrative Biology graduate students for success. We address departmental expectations and standards by providing: an introduction to departmental expertise and capabilities, exposure to available tools and resources, a forum for research conceptualization and formulation, instruction on finding and securing funding, guidance on how to convert questions into grant proposals, and a milieu for preparation, submission and peer review of external grant/fellowships. Previously offered as ZOOL 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5010 Graduate Seminar
Description: Discussion of selected topics. Previously offered as ZOOL 5010. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5011 Current, Historical, and Integrative Principles in Integrative Biology
Prerequisites: Admission to Integrative Biology graduate program or instructor approval.
Description: This course will furnish fundamental concepts in ecology, evolution, and environmental stress for first-year graduate students in Integrative Biology (and related departments). More importantly, this course is organized as modules that bring together various elements from the three broadly defined, and fundamentally related disciplines (i.e., ecology, evolution, and environmental stress), that our department views as our core strengths. Previously offered as ZOOL 5011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5020 Special Problems
Prerequisites: Graduate standing and consent of instructor.
Description: Discussions of selected readings and topics. Previously offered as ZOOL 5020. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5024 Histology
Prerequisites: Consent of Instructor.
Description: The study of cellular composition and functional components of tissues. With an emphasis in vertebrates, the course is a survey of the microanatomy and function of tissues such as epithelial, connective, muscular, and nervous. May not be used for degree credit with BIOL 4024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5030 Teaching Integrative Biology
Prerequisites: Consent of instructor.
Description: Supervised teaching in the department. Attendance at seminar on problems involved in teaching Integrative Biology in college. Previously offered as ZOOL 5030. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5033 Evolution
Description: Development of the evolutionary concept; speciation evolutionary mechanisms and phylogenetic concepts. May not be used for degree credit with BIOL 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5073 Principles of Neuroscience
Description: This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as PSYC 5073 and BIOM 5983. May not be used for degree credit with BIOL 4073 or PSYC 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5100 Current Topics in Biology for Teachers
Prerequisites: Approval of instructor.
Description: Acquaints the primary or secondary teacher with recent advances in biology. May include lecture, laboratory or field work. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5104 General Parasitology
Prerequisites: BIOL 1604.
Description: Fundamentals of parasitism with emphasis on: life cycles, disease conditions, epidemiology, diagnosis, treatment, historical significance, terminology, taxonomy, and parasitological techniques. May not be used for degree credit with BIOL 4104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5113 Conservation Genetics
Prerequisites: Course in genetics strongly recommended.
Description: Principles of population genetics as they pertain to issues in conservation biology. Evolutionary relationships, hybridization, natural selection, factors affecting small populations, gene flow, captive populations, and META populations. No credit for students with credit in BIOL 4113. Previously offered as ZOOL 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5123 Behavioral Ecology
Prerequisites: Course in ecology strongly recommended.
Description: Analysis and description of the behavior of animals in their natural environment, especially in terms of natural selection and adaptation. A synthesis of ethology, population genetics, sociobiology, and evolutionary theory. Largely descriptive and generalized with limited emphasis on mathematical theory. Previously offered as ZOOL 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5133 Evolutionary Ecology
Description: This course is intended to inform students about the traditional breadth of evolutionary ecology, and its impacts on contemporary ecological and evolutionary theories. Study will include both broad historical precedent and the far-reaching importance of current research in evolutionary ecology. This course will develop skills in written and oral communication and critical/synthetic thought. Previously offered as ZOOL 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5134 Embryology
Prerequisites: BIOL 1604 and CHEM 1515.
Description: Biochemical basis of development with emphasis on gene regulation. Comparative development of sea urchin, frog, chick and pig. Experiments using frog and mouse, including the molecular level. May not be used for degree credit with BIOL 4134.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5174 Mammalogy
Prerequisites: College level ecology or Natural History course.
Description: Taxonomy, identification, evolution, zoogeography, life history traits, and techniques of study of wild mammals. Weekend field trips required. May not be used for degree credit with BIOL 4174.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5184 Advanced Herpetology
Description: The biology of amphibians and reptiles with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on Oklahoma species. Offered spring semester of even-numbered years. Weekend field trips required. May not be used for degree credit with BIOL 4184.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $125 applies.

BIOL 5215 Mammalian Physiology
Description: Descriptive and functional analysis of the mammalian nervous, cardiovascular, musculoskeletal, respiratory, renal, endocrine and digestive organ systems. For majors in human and animal sciences, particular pre-medical, pre-dental, and pre-veterinary tracks. Upper-division physiology course required. May not be used for degree credit with BIOL 4215. Previously offered as ZOOL 4215.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5243 Ecological Immunology
Description: The causes and consequences of variation in immunity studied within the context of evolution and ecology. A combination of lectures and student-led presentations intended for graduate students and advanced undergraduates. Previously offered as ZOOL 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5253 Pharmacology
Description: Major drug classes based on their predominant use or principal activity in the body; basis for drug action; and modification of drugs and their action by physiological processes. Upper-division Physiology and Organic Chemistry required. May not be used for degree credit with BIOL 4243 or BIOL 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5273 Environmental Physiology
Prerequisites: BIOL 3204 or BIOL 4215 or equivalent.
Description: The study of animal adaptation and responses to natural freshwater, and terrestrial habitats as well as anthropogenic problems specific to these habitats. No credit for students with credit in BIOL 4273. Previously offered as ZOOL 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5283 Endocrinology
Prerequisites: A course in physiology and chemistry or consent of instructor.
Description: Examination of the hormonal control and regulation of physiological processes in vertebrates. Function of the hypothalamus, pituitary, adrenal, thyroid, pancreas, ovary and testes. No credit for students with credit in BIOL 4283. Previously offered as ZOOL 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5293 Behavioral Neuroendocrinology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: Examination of the influences of nervous and endocrine systems on behavior and vice-versa, in vertebrates including humans. Historical roots and current techniques relating to topics, including male and female reproductive behavior patterns, sex differences in behavior and neuroendocrine causation. No credit for students with credit in BIOL 4293. Previously offered as ZOOL 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5303 Organismal Ecotoxicology
Description: Comparative study of the major groups of environmental contaminants (e.g. heavy metals, PCB's, insecticides) and an introduction to the basic theories, principles and techniques associated with the study of contaminant fate and effects on organisms. No credit for students with credit in BIOL 4303. Same course as ITOX 5303. Previously offered as ZOOL 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5313 Animal Communication
Prerequisites: Graduate standing.
Description: Mechanisms, function and evolution of animal communication systems. Emphasis on the function of sensory systems, signal production mechanisms, theories of signal design and optimal signaling strategies, and current research on signaling behavior and its evolution in wild animals. A course in animal behavior or evolution recommended. May not be used for degree credit with BIOL 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5333 Disease Ecology
Description: Understanding the ecology and evolution of pathogens and host-parasite relationships. This course will cover topics from the evolution of virulence and antibiotic resistance to globalization, emerging infectious diseases, and the factors driving increased pandemic risk. A class in Introductory Biology recommended. May not be used for degree credit with BIOL 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5343 Population and Community Ecotoxicology
Prerequisites: Course in ecology strongly recommended.
Description: Examines the exposure of animals to environmental contaminants and resulting effects at the individual through community level. The dynamic nature of exposure to contaminants will be of particular interest in this course. For example, how do the natural history traits of a species either protect it from exposure, or enhance its potential for exposure to contaminants? Topics will range from the historical perspectives to ecotoxicology to study design and risk assessment. Same course as ITOX 5343. Previously offered as ZOOL 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5363 Principles of Toxicology
Prerequisites: Course in chemistry and physiology strongly recommended.
Description: Basic concepts in toxicology such as chemical partitioning, dose response, toxicokinetics, toxicodynamics, and bioavailability. It will focus on the molecular and cellular mechanisms of toxicity of a few representative natural and man-made compounds. Case studies used to understand real-life scenarios. No credit for students with credit in BIOL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5403 Advanced Wetland Ecology
Prerequisites: A course in aquatic ecology or wetland management recommended.
Description: Principles and theory of wetland ecology with a focus on wetland processes, function, and services. Topics include wetland geomorphology, biogeochemistry and hydrology of wetlands, wetland functions and services, wetland development, wetland restoration, water issues, wetland policy, philosophy of wetland management, and educating society about wetlands. Same course as NREM 5403. Previously offered as ZOOL 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5413 Biology of Fishes
Description: Ecology and evolution of fishes with particular emphasis on physiology, morphology, behavior, and taxonomy; laboratory emphasis on Oklahoma species. Weekend field trips required. Previously offered as ZOOL 4413. May not be used for degree credit with BIOL 4413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5423 Techniques in Environmental Toxicology
Prerequisites: Organic chemistry or instructor consent.
Description: Practical understanding of modern techniques used to quantify exposure and effects of environmental toxicants. Laboratory topics include gas chromatography, HPLC, atomic absorption spectroscopy, immunoassay, and toxicity testing. Same course as ITOX 5423. Previously offered as ZOOL 5423.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5434 Limnology
Description: This course provides an overview of the physical, chemical, and biological characteristics of inland habitats including lakes, reservoirs, streams, and wetlands. Field trips required. May not be used for degree credit with BIOL 4434.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5464 Ornithology
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. May not be used for degree credit with BIOL 4464, NREM 4464. Previously offered as NREM 5564.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5484 Animal Locomotion
Description: How do animals move? How does this motion change based on environment? How has such motion evolved across groups? This course will explore the relationship of body form to locomotion. We will focus on all types of animals, which represent a broad diversity of types of locomotion (e.g. flying, swimming, jumping), environments (e.g. air, land, water), and scales of body size (i.e. from single cells to whales). A laboratory will serve to introduce students to the methods and technology used in studying locomotion. May not be used for degree credit with BIOL 4484.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5503 Spatial Ecology and Analysis
Prerequisites: Course in ecology strongly recommended.
Description: Theory, methods, and models for identifying and quantifying spatial patterns and processes, with a focus on implications for ecological relationships. Previously offered as ZOOL 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5523 Population Ecology
Prerequisites: BIOL 3034 and MATH 1513.
Description: Theory and principles of predicting and analyzing population abundance and dynamics. Life history theory, foraging theory, habitat selection, population genetics, and species interactions. Previously offered as ZOOL 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. May not be used for degree credit in BIOL 4524, MICR 4524, PBIO 4524. Same course as PBIO 5524 and MICR 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: Biology Consummable Material fee of $50 applies.

BIOL 5623 Ecological Data and Alternative Hypothesis
Prerequisites: Course in statistics strongly recommended.
Description: Emphasizes statistical analyses that start with a set of plausible alternative hypotheses and use likelihoods to quantify the relative support the hypotheses receive from empirical data. Instruction will be done with lectures, computer lab exercises, and in-class presentations. Previously offered as ZOOL 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5633 Ecological and Behavioral Modeling
Prerequisites: Course in ecology strongly recommended.
Description: This course will provide a general overview of modeling approaches for studying a variety of ecological and environmental problems. It will provide students with a toolbox of techniques, and discuss how they can be used to address questions and generate testable predictions. The course will emphasize modeling individual behavior and population dynamics. Previously offered as ZOOL 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5643 Ecological Niche Modeling and Species Distributions
Prerequisites: Course in ecology strongly recommended.
Description: Ecological niche modeling theory and practice. Generation of niche models and distribution predictions to address questions on species' ecology, conservation, biogeography, and phylogeography. Familiarization with ESRI ArcGIS software, as well as environmental GIS data sources. Previously offered as ZOOL 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 6000 Research for PhD Dissertation
Description: Independent research for the PhD dissertation under the supervision of a graduate faculty member. Previously offered as ZOOL 6000. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

Biomedical Sciences (BIOM)

BIOM 5000 Research & Thesis
Prerequisites: Consent of major adviser.
Description: Research in biomedical sciences for MS degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 5003 Statistics for Medical Residents
Prerequisites: Employed as a medical resident or permission of instructor
Description: Survey of statistical methodology relevant to health care professionals. Basic understanding of statistics presented in recent medical literature. Hypothesis testing, ANOVA techniques, regression, categorical techniques. Same course as STAT 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5010 Special Topics in Biomedical Sciences
Description: Provides an overview of current issues in biomedical sciences. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5013 Medical Biostatistics
Prerequisites: Graduate standing.
Description: Fundamentals of biostatistics, including parametric and non-parametric statistical methods with applications to biomedical research, clinical epidemiology and clinical medicine.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5020 Biomedical Sciences Seminar
Prerequisites: Graduate standing.
Description: Literature and research problems in biomedical sciences. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Lecture: 1-15 Contact: 1-15
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5116 Clinical Anatomy
Prerequisites: Graduate standing in the biomedical sciences program.
Description: Presents gross structure of the human body using a regional approach. Topics include topographical and functional anatomy, clinical correlations, and introduction to radiology. The course provides the descriptive basis for understanding human structure and function encountered in succeeding courses and medical practice. Previously offered as BIOM 5118. Same course as PCME 8116.
Credit hours: 6
Contact hours: Contact: 6 Other: 6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 5121 Biomedical Sciences Journal Club
Description: Each week students will read and discuss a recent peer-reviewed research article in a respected biomedical journal. The objectives are to learn to critically evaluate published research, develop scientific communication skills, and learn about recent scientific findings from a variety of fields in a group setting.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biomedical Sciences

BIOM 5122 Introduction and Survey of Human Structure
Description: This is an introductory survey course aimed at presenting an overview of structures and functions of the body's systems using a regional approach. Discover the human body through recorded lectures and virtual dissections of cadaveric specimens using 3D anatomy software. Seven online modules will cover introductory survey information from all regions of the human body. The course is suitable for students interested in learning human structure in a self-paced, online environment.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 3 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 5124 Systems Histology & General Pathology
Description: Introduction to the histophysiology and general pathology of the basic tissues and includes the cardiovascular, respiratory, hematology, lymphatic, genitourinary, endocrine, reproductive, integumentary, and gastrohepatic systems. Lecture, lab, and group discussions are used as the main means of presenting the material. Students will learn how structure relates to physiology and how pathology disrupts cell processes and the normal architecture.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5133 Neuroanatomy
Prerequisites: Graduate standing in the biomedical science program.
Description: A continuation of gross anatomy to include anatomy of the head region. Emphasis on neuroanatomy. Laboratory sessions on head and brain dissection and special demonstrations. The relation of basic principles with osteopathic medicine and neurology in clinical correlation sessions. Previously offered as BIOM 5132.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5211 Advanced Microscopy
Description: An intensive block-style course offering hands-on training in microscopy techniques, from basic to advanced, guided by and expert instructor.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Biomedical Sciences

BIOM 5215 Medical Biochemistry
Description: Broad survey of the chemical classes and metabolic processes that are consistent with the normal functions of biosystems. Functions and interrelationships of these processes in human metabolism to provide a foundation for understanding the chemistry of disease states when discussed in the second-year program.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5316 Medical Microbiology and Immunology
Prerequisites: BIOM 5215.
Description: Similarities and differences among pathogenic microorganisms. Characteristics, pathogenesis and control of medically important microorganisms and disorders of the immune system. Laboratory exercises on the basic serological and microbiological procedures used in the diagnosis of infectious diseases.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5616 Graduate Biomedical Physiology
Description: This course provides a comprehensive study of the regulatory mechanisms within the major organ systems that enable the human body to maintain homeostasis. The fundamentals of physiology are emphasized in discussions of the integration of structure and function in all systems of the body, along with the integration of function among systems. Problem-solving activities are utilized to develop student understanding and enhance subsequent earning — both in the basic and clinical sciences.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5621 Introduction to Translational Research
Description: Focuses on biomedical and clinical research from bench to bedside and back. Provides examples of how basic science and clinical observations lead to translational research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5631 Disease Research in Medicine
Prerequisites: Biomedical Foundations or equivalent. Permission of instructor.
Description: Introduction to selected diseases of priority in medicine and to funding agencies. Includes discussing current clinical and research challenges.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5641 Cornerstones of Vertebrate Paleontology
Description: In-depth discussion of topics in Vertebrate Pathology, emphasizing critical thinking skills. Based on evaluation of the primary literature, and covering diverse methodological approaches to interdisciplinary research questions.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5651 Morphological Phylogenetic Systematics
Description: Introduces guiding principles, approaches, and techniques used to reconstruct the evolutionary history of organisms, with a special emphasis on constructing and utilizing morphological characters from the skeletons of fossil and extant vertebrates to infer their evolutionary relationships. This course introduces tree-building methods and phylogenetic classification frameworks.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5653 Evolutionary Physiology
Description: Survey course that covers the basic physiology of, primarily, mammalian species. Uses an evolutionary approach that integrates form with function by outlining the evolutionary sequences thought to have resulted in modern organ structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5663 Graduate Pharmacology
Description: Provides an enriched understanding of the mechanism of actions of pharmacological agents used to treat human diseases.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5672 Scientific Outreach Training for Graduate Students
Description: Provides interactive opportunities with elementary school-aged children with a particular emphasis on developing an understanding of the scientific method as a strategy for real-life problem-solving.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5683 Chronic Inflammation and Cancer Development
Description: Provides insight that describes the issues of chronic inflammation, auto-immune and cancer development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5693 Principle Concepts of Cellular and Molecular Immunology
Description: Introduces and explores basic concepts of immunology with cellular and molecular components that play a role in normal and disease states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5963 Case Studies in Medical Smart Garment Engineering
Prerequisites: BIOM 4893 or DHM/IEM 4893 or consent of instructor.
Description: Designed to activate critical thinking skills needed for problem solving in wearable sensing system development. Same course as DHM 5963.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 5983 Principles of Neuroscience
Prerequisites: Science or Psychology major and permission of instructor.
Description: This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions learning, and memory. Previous coursework in physiology recommended. Same course as BIOL 5073 and PSYC 5073. May not be used for degree credit with BIOL 4073 or PSYC 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 5984 Capstone in Medical Smart Garment Engineering
Prerequisites: BIOM or DHM 5963 and three credits of chosen emphasis area.
Description: Project-based where interdisciplinary teams identify a wearable sensing application and collaborate to engineer a prototype that addresses a defined need. Industry collaboration encouraged. Same course as DHM 5984.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 5993 Principles of Neuroanatomy
Prerequisites: Science or psychology major and permission of instructor.
Description: Comprehensive overview of the normal structure and function of the nervous system and its divisions under conditions of normal health as well as disease. Designed for graduate students neuroscientists, pre-medical, and health professions students. An introduction to clinically-oriented neurological assessment will be provided.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6000 Research and Dissertation
Prerequisites: Consent of major adviser.
Description: Research in biomedical sciences for PhD degree. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6010 Topics in Biomedical Sciences
Prerequisites: Consent of instructor.
Description: Tutorials in areas of biomedical sciences not addressed in other courses. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6013 Educational Methods in the Biomedical Sciences
Prerequisites: Graduate standing.
Description: Introduces graduate students to a full range of faculty roles and responsibilities related to instructional methods used at the health sciences center.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6023 Research Methods And Design
Prerequisites: Graduate standing.
Description: Introduction to concepts of research design, methodology, sampling techniques, internal and external validity, and the scientific method.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6173 Molecular Epigenetics
Prerequisites: BIOM 6743, and/or BOM 6762.
Description: Designed to introduce students to concepts of epigenetics and how different epigenetic factors modulate gene expression and heritable phenotypes without changing the underlying gene sequences. This course will also discuss the underlying epigenetic mechanisms for different human diseases.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6175 Molcular And Cellular Biology
Prerequisites: Consent of course coordinator.
Description: Cell biology, including cellular macromolecules, energetics, metabolism, regulation, organization and function of cellular organelles, flow of genetic information, and the regulation of selected cell activities.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6183 Cellular and Molecular Biology of Pain
Prerequisites: BIOM 5133 or BIOM 5616.
Description: An understanding of the cellular and molecular events that occur in the initiation and transmission of nociceptive (painful) sensory signaling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6193 Paleomammalogy
Description: The study of mammalian paleobiology through seminars and field work. Field trips are required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6200 Neurobiology of Addiction
Prerequisites: Graduate Standing, Instructor permission.
Description: A broad review of the foundations for understanding of what occurs when a drug enters the body and the brain, how your brain changes, and how this process can make recovering from addiction a challenge. Special attention will be paid to the neuroanatomy and circuitry of reward, basic concepts and definitions involving substance use disorders, neural dysfunction under addiction, the stages of addiction and implications for treatment. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6214 Advanced Topics in Medical Biochemistry
Prerequisites: BIOM 5215 or concurrent enrollment.
Description: Chemical basis of protein, carbohydrate, lipid, nucleic acid, steroid and porphyrin structure, function, and metabolism as related to health and disease. Offered for variable credit, 3-15 credit hours, maximum of 15 credit hours.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6233 Enzyme Analysis
Prerequisites: BIOM 6214.
Description: Characteristics, separation, detection, assays, kinetics, mechanisms of catalysis, inhibition or inactivation, and clinical applications of enzyme analysis.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6243 Human Nutrition
Prerequisites: BIOM 5215.
Description: Role of vitamins and minerals in maintaining normal metabolism, role of nutrients in providing athletic and immune system performance, and pathophysiology associated with nutrient deficits and nutrient excesses. Role of drugs in inducing cancer and increasing nutrient requirements.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6263 Techniques in Molecular Biology
Prerequisites: BIOM 5215, BIOM 5316, consent of instructor.
Description: Transformation of bacterial and mammalian cells; purification of nucleic acids; cloning of DNA fragments; labeling of nucleic acids with non-radioactive probes; analysis of DNA and RNA by electrophoresis and hybridization; DNA sequencing; design, synthesis and use of oligonucleotides; site-directed mutagenesis; detection of rare nucleic acids by the polymerase chain reaction and expression of proteins.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6333 Immunology
Prerequisites: Introductory Biochemistry, and Microbiology, e.g. BIOM 5215 and BIOM 5316, or equivalents. Permission of instructor is required.
Description: Fundamental concepts of immunology, including immunobiology and immunopathology, with an introduction to its experimental basis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6343 Microbial Physiology
Prerequisites: BIOM 5215, BIOM 5316.
Description: The chemical composition, growth and metabolism of prokaryotic organisms including regulation and control of metabolic pathways with emphasis on metabolism unique to microbes.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6353 Molecular Virology
Prerequisites: BIOM 5215, BIOM 5316, consent of instructor.
Description: The fundamental molecular biology of the virus life cycle using one virus as a model to examine penetration, gene regulation, replication, assembly and egress, as well as host immunological response and epidemiology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6363 Immunobiology of Infectious Disease
Prerequisites: Biochemistry, Medical Microbiology and Immunology.
Description: Graduate course to provide an understanding of cellular and molecular events that occur during the initiation of immune response to main causes of human pathogens.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6413 Graduate General Pathology and Laboratory Medicine
Prerequisites: Graduate standing and BIOM 5215; permission of the instructor is required; BIOM 5616 and BIOM 5316 are recommended.
Description: An introduction for biomedical researchers to disease processes, from etiologies to cell and tissue responses that manifest as diseases.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6513 Neuropharmacology
Prerequisites: BIOM 5983.
Description: This course covers the pharmacology of agents affecting CNS function, the interaction of drugs with their targets, and the actions of endogenous neuromodulators at CNS sites. This course emphasizes molecular mechanisms underlying the action of neuropharmacological agents used in treating various neurological/psychiatric diseases (e.g., drug dependence, depression, schizophrenia), and will provide basic knowledge while enhancing reasoning skills, literature searches, teamwork, and presentations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6523 Cardiovascular Physiology and Pharmacology
Prerequisites: BIOM 5513, BIOM 5523.
Description: Physiologic and pharmacologic mechanisms of cardiac and vascular smooth muscle function and control at the molecular, cellular, tissue and organ system levels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6543 Environmental Toxicants and the Brain
Description: Introduces the fundamental aspects of neurotoxicology using both cellular and molecular approaches in neurochemistry and toxicology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6551 CT Techniques in Evolutionary Anatomy
Prerequisites: Graduate standing, some experience (academic or professional) with either anatomy or 3D visualization.
Description: The analysis of computed tomography (CT) scans has become a standard practice in evolutionary anatomy. This course will introduce students to many of the techniques used in the analysis and segmentation of CT scans. Students will be given a small scan of their own to work on over the course.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6583 Neuroinflammation
Prerequisites: Graduate standing.
Description: Provides an understanding of inflammation in the central nervous system through discussion of current and experimental pharmacologic strategies designed to modulate neuroinflammation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6613 Environmental Physiology
Prerequisites: BIOM 5616.
Description: Environmental parameters, including barometric pressure, temperature, light, gravity, noise, and crowding, having an impact on homeostatic mechanisms in the normal human with special emphasis on acute and chronic adaptations in response to changes in environmental parameters.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6643 Neurophysiology
Prerequisites: BIOM 5616.
Description: Fundamental concepts of the motor and sensory components of the nervous system with emphasis on integrative mechanisms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6653 Graduate Seminar In Signal Transduction
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6662 Research Ethics and Survival Skills for the Biomedical Sciences
Prerequisites: Graduate standing.
Description: Provides a basic framework for scientific conduct and practice and the skills needed for a career in the biomedical sciences.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6663 Neuroethology
Prerequisites: Permission of instructor.
Description: This course is designed to provide an analysis of the neuroendocrine basis of behavior. Lectures will serve as the format of presentation to provide a sound understanding of the neuroethological concepts discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6673 Genomics
Prerequisites: BIOM 6175.
Description: The course begins with a review of molecular biology and then proceeds to the structure and organization of eukaryotic, prokaryotic, and organelle genomes. Techniques in dividing, sequencing, annotating, and mapping genomes are studied as well as those of global gene expression profiling. The course finishes with a look at the many applications of genomics in biomedical science and disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6705 Advanced Gross Anatomy
Prerequisites: Consent of course coordinator.
Description: General and specific concepts of regional human anatomy. The primary focus is the range of normal for all organ systems and interrelationships. Provides an advanced descriptive basis for understanding human structure and function encountered in succeeding courses and in the practice of teaching gross anatomy to graduate and medical students.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6723 Field Techniques in Vertebrate Paleontology
Description: This course introduces students to techniques and tools necessary to conduct field work in vertebrate paleontology. The primary techniques will include mapping, prospecting and collecting both micro- and macrofossil vertebrate remains. Processing of rock matrix with microvertebrates will be emphasized, but preparation of macrofossil remains for transportation to the research lab will be taught.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6733 Human Microbiome in Health and Disease
Prerequisites: BIOM 6793 Foundations in Medical Microbiology or BIOM 5316 Medical Microbiology and Immunology.
Description: An in-depth discussion of the interactions of the microbiome with the human host. The course focuses on current research and provides a comprehensive overview on metagenomic and multi-omics analyses used in model systems and clinical studies to elucidate the role of the microblome in human health and disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6743 Foundations in Medical Genetics, Molecular Biology and Development
Description: Human genetics and development, including structure and function of nucleic acids, gene regulation, basis of inheritance, and development of the human embryo. Same course as PCME 8743.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6752 Foundations in Medical Cell and Tissue Biology
Description: Structure and function of cells within tissues as it relates to human health and disease, including cell transport, cell-to-cell communication and organ system control. Same course as PCME 8752.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6762 Foundations in Medical Biochemistry
Description: Biochemistry in human health and disease, including protein structure and function, bioenergenetics, metabolism, nutrition, and membrane structure and function. Same course as PCME 8762.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6771 Foundations in Medical Pharmacology
Description: General principles of pharmacokinetics and pharmacodynamics of drugs used to treat human disease. Same course as PCME 8771.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6781 Foundations in Medical Immunology
Description: Immune system in human health and disease, including antibody and cell-mediated immune responses, inflammation, immune responses to infectious agents and allergens, immunodeficiencies and malignancies of the immune system. Same course as PCME 8781.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6793 Foundations in Medical Microbiology
Description: Infectious agents, including viruses, bacteria, fungi and parasites, their structure, genetics and mechanisms of pathogenesis in human disease. Previously offered as BIOM 6791. Same course as PCME 8703.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6800 Critical Readings in Biomedical Sciences
Description: Provides experience with the primary literature in biomedical sciences, with training in evaluation methodologies, experimental design, data presentation, and statistical designs. Previously offered as BIOM 6802. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6810 Structure and Function of the Human Cardiovascular System
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human cardiovascular system. Same course as PCME 8814. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6820 Structure and Function of the Human Gastrointestinal/ Hepatic System
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human gastrointestinal and hepatic systems. Same course as PCME 8823. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6830 Biomedical Perspectives on Human Hematology
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human blood and lymphatics, and associated disorders. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8833.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6840 Structure and Function of the Human Musculoskeletal System
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human musculoskeletal system and associated disorders. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8841 and PCME 8842.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6843 Vertebrate Osteology
Description: Students learn to identify skeletal elements of Vertebrata. Focus is on extant vertebrates, but fossil taxa may also be used. Foci include: assessing at what taxonomic level an identification may be made; synapomorphies, homoplasies, and inference of ecology from skeletal elements; reading differential diagnoses and writing useful osteological description, and; distinguishing co-occurring taxa. Students will also receive some training in using and building osteological collections.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6850 Structure and Function of the Human Renal System
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human renal system. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8853.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6860 Structure and Function of the Human Reproductive Systems and Reproductive Biology
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the male and female human reproductive systems and reproductive biology. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8863.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6870 Structure and Function of the Human Respiratory System
Prerequisites: Permission of Instructor.
Description: Provides integrated biomedical study of the human respiratory system. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8873.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6880 Biomedical Perspectives on Psychiatry
Prerequisites: Permission of Instructor.
Description: Permission of Instructor. Provides clinical presentation, differential diagnosis, etiology (including pathophysiological etiologies), basic pharmacology of medications used to treat the disorder, clinical pharmacology, and psychosocial treatments. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours. Same course as PCME 8883.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6893 Fundamentals of Medical Smart Garment Engineering
Prerequisites: 90+ hours or Graduate standing.
Description: Students will gain elementary knowledge in focus areas of health science, biomedical sensing and analysis, and apparel design necessary to undertake the development of wearable electronic sensing systems. Lecture and laboratory based instruction. May not be used for degree credit with DHM 4893 or IEM 4893 or 5893.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biomedical Sciences

BIOM 6900 Structure and Function of the Human Endocrine System
Description: Provides integrated biomedical study of the human endocrine system, and associated disorders. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Same course as PCME 8903.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6910 Structure and Function of the Human Nervous System
Description: Provides integrated biomedical study of the human nervous system. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Same course as PCME 8916.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biomedical Sciences

BIOM 6922 Scientific Communication in Biomedical Sciences
Description: Provides experience in scientific writing and oral presentations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6933 Cornerstones of Graduate Biomedical Sciences
Description: Discussion of topics in the foundational courses of biomedical sciences, emphasizing critical thinking skills and diverse methodological approaches in understanding interdisciplinary research questions and in evaluations of the primary literature. Intended to be taken concurrently with foundation courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6943 Advanced Vertebrate Paleontology
Prerequisites: Comparative anatomy or human anatomy, and assumes an undergraduate level understanding of vertebrate paleontology, biology, and evolution.
Description: Explores vertebrate evolution in a phylogenetic, ontogenetic, and stratigraphic framework. Students discuss recent ideas in paleontology from scientific literature and/or instructor-led exercises. Appreciation of homologies and autapomorphies is gained through exploration of extant verterbrate anatomy. Communication skills are developed through oral presentations and writing. Students will demonstrate a synthesis of concepts by integrating a chosen evolutionary theme into these activities.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Biomedical Sciences

BIOM 6952 Paleohistology Techniques
Prerequisites: Undergraduate level understanding of biology, evolution, and histology.
Description: Recognize and interpret modern and fossil bone tissue microstructures. The contributions of paleohistology to understanding extinct vertebrate physiology will be explored through discussions of peer reviewed articles. Students will receive hands-on training in paleohistology techniques.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6962 Evolutionary Biomechanics
Prerequisites: BIOM 5116 or HHP 2654 or ZOOL 3114.
Description: Evaluation of topics covering the application of engineering principles to biological systems in an evolutionary framework. Topics will examine the material properties of anatomical tissues, how forces act internally and externally on organisms and their structures, kinematics, and biomechanical model systems. Primary literature and experimental designs will also be explored.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Biomedical Sciences

BIOM 6972 Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders
Prerequisites: BIOM 6513 Neuropharmacology.
Description: An in-depth review of physiological aspects of nicotinic acetylcholine receptors (AChRs), its involvement in neuropsychiatric (depression, drug addiction) neurological (Alzheimer's disease), and non-neurological (inflammation) diseases, and as targets for pharmacotherapy. This course is designed to emphasize self-learning and team-learning in the form of student seminars to address new pharmacological and neurological evidence supporting novel pharmacotherapies.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biomedical Sciences

BIOM 6973 Evolutionary Development of Vertebrates
Description: Beginning with human embryology we ask: Why does human anatomy look the way it does? This course follows this question into broader inquiries on metazoan origins, diversification, and vertebrate morphologies. This is a flipped course teaching embryology and developmental genetics in an explicitly evolutionary framework with particular focus on the diversity of living vertebrates and the interpretation of fossil vertebrates.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Biomedical Sciences

Biosystems & Ag Engineering (BAE)

BAE 1011 Introduction to Biosystems Engineering
Description: Introduction to the Biosystems Engineering discipline; use of computers in solving engineering problems; and the application of computer software in engineering analysis and reporting. Previously offered as BAE 1012.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

BAE 1022 Experimental Methods in Biosystems Engineering
Prerequisites: BAE 1012 or consent of instructor.
Description: An introduction to the basics of instrumentation, measurement techniques, and data analysis, with an emphasis on written communication skills. Lecture and laboratory exercises that address measurement principles, including accuracy, precision and error analysis.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 2013 Computational Methods in Biosystems Engineering
Description: Introduction to computer-based methods applied to biosystems and agricultural engineering problems. Application of spreadsheet tools and programming methods to solve engineering problems. Course previously offered as BAE 2012.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3013 Heat and Mass Transfer in Biological Systems
Prerequisites: ENSC 3233, MATH 2233.
Description: Mechanisms of heat and mass transfer, with specific applications in transport processes of biological systems. Introduction to steady state and transient heat conduction and convection, radiation, diffusion, simultaneous heat and mass transfer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3023 Instruments and Controls
Prerequisites: ENSC 2613, MATH 2233.
Description: Design of control and instrumentation systems, including sensor and actuator principles, interface electronics, system identification, modeling, and performance specification. Applications in biological and agricultural systems. Design project required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3033 Advanced Biology and Material Science of Biomaterials
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404, PHYS 2014, MATH 2144.
Description: Building on basic biology and engineering fundamentals to characterize properties of biological materials such as moisture content and water movement, rheology, electromagnetic response, thermal properties, conveyance requirements, psychometric interactions and heating/cooling response. Course previously offered as BAE 2022 and BAE 2023.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3113 Biological Applications in Engineering
Prerequisites: BAE 2012, BIOL 1114 or (BIOL 1113 and BIOL 1111), ENSC 2213, 3233, MATH 2233 or concurrent enrollment.
Description: Introduction to engineering applications of biological processes. Technologies covered include fermentation systems, enzyme kinetics, wastewater treatment and bioremediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3213 Energy and Power in Biosystems Engineering
Prerequisites: Completion or concurrent enrollment in ENSC 2213, ENSC 2613, ENSC 3233.
Description: Analysis and design of energy generation, transmission, and utilization in the production and processing of biological materials.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3223 Principles of Agriculture and Off-Road Machinery
Prerequisites: Completion or concurrent enrollment in ENSC 3233, ENSC 2613 and SOIL 2124.
Description: Principles of design, function, operation, testing and application of agricultural and off-road equipment and systems. Vehicle and implement system dynamics and hitching, and plant and soil interaction with machines. Machinery evaluation and standardized test procedures emphasizing safe and efficient performance of modern farm and off-road equipment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3313 Natural Resources Engineering
Prerequisites: BAE 2023, STAT 2013, and ENSC 3233 or concurrent enrollment.
Description: Principles and practices of engineering analysis and design applied to hydrology, water quality, erosion and sedimentation, air quality, irrigation and animal waste management. Course previously offered as BAE 3323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4001 Professional Practice in Biosystems Engineering
Prerequisites: Concurrent enrollment in BAE 4012.
Description: Preparation for professional practice through case studies about ethics, legal liability, safety, and societal issues. Practical professional communications experience.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 4010 Special Topics in Biosystems Engineering
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4012 Senior Engineering Design Project I
Prerequisites: Completion or concurrent enrollment in ENSC 2143, BAE 3013, BAE 3023, BAE 3213, BAE 4001.
Description: Team work on professional level design projects, using design procedures to develop specifications, propose alternative solutions, consider external constraints, develop drawings or plans, construct, test and evaluate designs.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4023 Senior Engineering Design Project II
Prerequisites: BAE 4001, BAE 4012. BAE 4023 must be taken the immediate semester after completion of BAE 4012.
Description: Second of two-semester sequence of senior design courses. Course previously offered as BAE 4022.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4043 In-Vehicle Networking for Off-Road and Heavy Duty Systems
Prerequisites: BAE 3023.
Description: Analysis of in-vehicle network systems and associated design issues. Introduction to CAN-based networking, serial and parallel communications, sensor interfacing, computer control of external devices, and comprehensive coverage of ISO 11783 and BAE J1939.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. Same course as SOIL 4213. May not be used for Degree Credit with BAE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. Course previously offered as BAE 4223. May not be used for Degree Credit with BAE 5224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4283 Bioprocess Engineering
Prerequisites: BAE 3013, BAE 3113 or consent of instructor, ENSC 3233.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 4283. May not be used for Degree Credit with BAE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4314 Design Hydrology
Prerequisites: BAE 3033, ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 5314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4324 Water Quality Engineering
Prerequisites: MATH 2233; BAE 2013; CHEM 1414 or CHEM 1515; or consent of instructor.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment, and integrated watershed management. May not be used for Degree Credit with BAE 5374.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modelling. May not be used for degree credit with BAE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4400 Special Problems
Description: Investigations in specialized areas of biosystems engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 4413 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. Course previously offered as BAE 4423. May not be used for Degree Credit with BAE 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5000 Master's Research and Thesis
Prerequisites: Consent of major professor.
Description: Research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5010 Advanced Topics in Biosystems Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5030 Problems in Biosystems Engineering and Agricultural Technology
Prerequisites: Consent of instructor.
Description: Problems associated with biosystems engineering and agricultural technology. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5213 Renewable Energy Engineering
Prerequisites: ENSC 2213, ENSC 3233 or consent of instructor.
Description: Renewable technologies such as solar, wind, geothermal, hydroelectric, and biomass to generate energy for electricity, heating, transportation, and other uses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5223 Precision Agriculture
Prerequisites: MATH 1513.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. May not be used for degree credit with BAE 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. May not be used for degree credit with BAE 4224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5243 Biological Conversion for Advanced Biofuels
Prerequisites: ENSC 2213.
Description: Fundamental principles and applications of converting biomass to advanced biofuels. Focus will be on biological processes, fermentor design and operation, product recovery and emerging fuels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5283 Advanced Bioprocess Engineering
Prerequisites: Consent of instructor.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5313 Watershed Modeling
Prerequisites: BAE 4313 or equivalent.
Description: A computer modeling course with an emphasis on chemical and physical processes governing nonpoint source pollution (nitrogen, phosphorus, sediment) at the basin scale. The laboratory use of state-of-the-art models applied to a variety of agricultural systems. "Hands on" use of comprehensive hydrologic water quality models that utilize spatial data in a geographic information system. Models and parameter uncertainty, digital data sources, parameter estimation and model testing, calibration and validation. For students with advanced personal computer skills.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5314 Design Hydrology
Prerequisites: BAE 2023 and ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 4323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5324 Modeling and Design in Storm Water and Sediment Control
Prerequisites: BAE 4313 or equivalent.
Description: Analysis and design of storm water, sediment and water quality systems with a focus on application to urban areas and developments in the urban-rural fringe. Advanced concepts in hydrologic modeling with kinematics, diffusion and dynamic modeling of flow; soil erosion, sediment transport and sediment control; storm water quality modeling and the impact of best management practices. In laboratories, use of hydrologic, sediment, and water quality models in analysis and design for real-world problems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5333 Applied Water Resources Statistics
Prerequisites: STAT 5013 or equivalent.
Description: Applied statistical methods for hydrologists, engineers, and environmental scientists for analysis of environmental data. Parametric and nonparametric methods and exploratory data analysis applied to observed environmental data sets. Laboratory exercises emphasize hands-on application of statistical problems to reinforce concepts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modeling. May not be used for degree credit with BAE 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5353 Environmental and Ecological Risk Assessment
Prerequisites: Graduate standing.
Description: Process and methodologies associated with human, environmental and ecological risks. Will quantify uncertainty in human perturbation, management, and restoration of environmental and ecological processes. Course available online only through AG*IDEA consortium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5374 Water Quality Engineering
Prerequisites: Graduate standing.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment and integrated watershed management. May not be used for degree credit with BAE 4324.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5413 Advanced Data Acquisition and Control
Prerequisites: BAE 3023 or equivalent.
Description: Principles and operation of commercial instruments and data acquisition systems used in biological, environmental, and agricultural applications. Hands-on projects that will improve system design, development and programming skills. Introduction of advanced topics including machine vision, spectroscopy, and data communication networks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5423 Food Rheology
Prerequisites: ENSC 3233.
Description: Characterization and analysis of the rheological properties of food products. Focus on measurement techniques and equipment, including tube and rotational type instruments, with specific applications in food processing.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5433 Biosensors
Prerequisites: PHYS 2114 and CHEM 3053 or equivalent.
Description: Principles and applications of biosensors in food analysis, disease diagnostics, and environmental monitoring. Emphasis on conceptual design and characterization of biosensors. Introduction to recent advances in biodetection using nanotechnology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5443 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. May not be used for degree credit with BAE 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5501 Seminar
Description: Discussion of current literature with special emphasis on research and experimental techniques. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 6000 Doctoral Research and Dissertation
Prerequisites: Approval by the student's advisory committee.
Description: Research and doctoral dissertation preparation. Offered for variable credit, 1-10 credit hours, maximum of 42 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6101 Teaching Practicum in Biosystems Engineering
Prerequisites: One semester of doctoral study in Biosystems Engineering, or consent of instructor; International students must pass the ITA exam.
Description: Philosophies and techniques of resident and non-resident teaching, including experiences in preparation, presentation, and evaluation of lectures, laboratories, extension or continuing education programs. Course previously offered as BAE 6100.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6213 Advanced Biomass Thermochemical Conversion
Prerequisites: ENSC 2213.
Description: Advanced study, evaluation, and application of thermochemical conversion pathways in biofuel production. Specific topics include biomass gasification, pyrolysis, liquefaction, and heterogeneous catalysis. Course available online only through AG*IDEA consortium. Course previously offered as BAE 6100.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6313 Stochastic Methods in Hydrology
Prerequisites: CIVE 5843, STAT 4033.
Description: Stochastic and statistical hydrologic analyses of surface water and groundwater systems. Analysis of urban and rural drainage and detention systems. Same course as CIVE 6843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6333 Fluvial Hydraulics
Prerequisites: BAE 3013 or equivalent.
Description: Principles of sediment detachment and transport in fluvial systems. Design of stable channels and flow resistance relationships for sediment-laden flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6343 Ground Water Contaminant Transport
Prerequisites: SOIL 5583 or CIVE 5913 or GEOL 5453.
Description: Principles of solute and multiphase transport in soils and ground water. Effects of advection, diffusion, dispersion, degradation, volatilization and adsorption. Relationships between laboratory and field scale transport. Contamination by nonaqueous phase liquids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6503 Similitude in Research
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6520 Problems in Soil and Water Engineering
Prerequisites: Consent of instructor.
Description: Consent of instructor. Problems associated with erosion control, drainage, flood protection and irrigation. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6540 Prob Farm Power & Mach
Prerequisites: Consent of instructor.
Description: Literature review and analytical studies of selected farm power and machinery problems. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6580 Problems in Transport Processes
Prerequisites: Consent of instructor.
Description: Literature review and analysis of heat and mass transport and interval diffusion in biological materials. Transport phenomena at interfaces, thermal and cryogenic processing, drying, packed and fluidized bed systems. Thermal and moisture control processing affecting quality of food products. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6610 Adv Research & Study
Prerequisites: Approval by the student's advisory committee.
Description: Research and study at the doctoral level on the topic related to the student's doctoral program and field of interest. Offered for variable credit, 1-10 credit hours, maximum of 20 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

Business Administration (BADM)

BADM 1111 Business First Year Seminar
Prerequisites: Freshman standing only and Spears School of Business or undeclared student.
Description: Required of all first semester freshmen in the Spears School of Business. An orientation to the SSB and OSU, survival skills, and a study of the career opportunities and curriculum in the various business departments. Same course as UNIV 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 1121 Freshman Research Orientation
Prerequisites: Instructor permission required.
Description: The approaches and tools for business research will be discussed. The essential components of a research proposal will be reviewed, with examples of the approach needed for a successful proposal. Students will prepare a business research proposal in an area of interest.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 2010 Special Topics
Prerequisites: Consent of instructor.
Description: Special topics and independent study in business. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 2011 Personal Management I: Decision-Making Skills
Description: Management concepts to help achieve success in students' personal lives, an examination of cognitive biases and decision-making strategies, recognizing traps and consumer rip-offs.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 2093 Study Abroad: Contemporary International Culture and Business Impacts
Description: A study of a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economics will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 2111 Career Planning for Business Success
Prerequisites: Spears School of Business major.
Description: The course covers the process required to land an internship and start a successful career. Students will identify interests, strengths, and values and recognize how to apply these to major/career selection. The course will also focus on determining professional career goals and building professional and personal networks.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 3021 Personal Management II: Influence Tactics
Description: An evaluation of the science of persuasion, influence tactics and practical strategies for managing interpersonal conflict. Also covers personal branding, upward and downward influence, issue selling in corporations and becoming a corporate entrepreneur. Previously offered as BADM 2021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 3090 Study Abroad (G)
Prerequisites: Consent of the Study Abroad office and associate dean of the college.
Description: Participation in an OSU reciprocal exchange program. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
General Education and other Course Attributes: International Dimension
Additional Fees: Study Abroad fee of $200 applies.

BADM 3101 Diversity Impacts on Business
Description: Diversity issues within major business theories. Through reading, observation, discussion, and writing, students will have their own perceptions of others challenged to better understand perspectives from different diverse populations. May not be used for degree credit with BADM 1103.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 3111 Professional Development for Business Success
Prerequisites: BADM 2111 and must be a Spears School of Business major.
Description: The course covers professional development essentials. Students will focus on growing their professional network, developing strong written and oral communication skills, and managing conflict, time, commitments, and teamwork.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 3113 Practical Business and Interpersonal Skills
Prerequisites: BADM 2111.
Description: This course develops skills in interpersonal communication, influence, networking, and other practical skills deemed critical for a successful business career. Interactive activities are designed for students to increase their problem-solving, resilience, confidence, and ability to interact with others. The course includes interactive discussions intended to increase students' ability to value different perspectives and learn to relate with diverse groups of people. May not be used for degree credit with MGMT 3133 or HTM 3113 or ORGL 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 3143 Business Career Development
Prerequisites: MGMT 3013.
Description: Topics include career planning, company research, interviewing techniques, networking and personal selling. Students develop strategies to develop their professionalism, confidence and sophistication. Previously offered as MGMT 3143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 4010 Business Projects
Prerequisites: Consent of instructor.
Description: Special advanced topics, projects and independent study in business. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 4033 Global Challenges in Context
Prerequisites: Registration in the We are the World Global Trail or departmental permission.
Description: This experiential course immerses students in real-world projects that address pressing global issues. Collaborating with global partner institutions, students will tackle complex challenges in areas such as sustainability, public health, social justice, and economic development. This high-impact capstone aims to foster global citizenship, critical thinking, and collaborative problem-solving skills, preparing students to become leaders in addressing global challenges.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 4050 Business Colloquium
Prerequisites: Junior standing and consent of the instructor and the dean.
Description: Study of an interdepartmental and interdisciplinary nature of various important issues and aspects of the business and economic environment. Provides an intellectual challenge for the able student with a strong interest in scholarship. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 4090 International Proficiency Field Experience for Business
Description: A cohort experience and study of a country and region that will ground the rich cultural, commercial, historical, technological, political, economic, and religious issues which have been explored through directed language and general education study. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 4093 Study Abroad: Business Impacts of Contemporary International Culture (G)
Prerequisites: Junior standing.
Description: A study of a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin
General Education and other Course Attributes: International Dimension

BADM 4123 Small Business Experience
Prerequisites: Junior standing, permission by instructor.
Description: This course provides hands-on experience involving all operations of running a small toffee business. Students will be involved in all aspects of the business including purchasing, production, market analysis, marketing, distribution, staffing & management, and accounting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 5013 Research Methods for Business
Prerequisites: STAT 2023, admission to MBA program or approval from MBA director.
Description: Role of Bayesian and inferential statistics in business research and management decision-making. Measurement, sealing, survey methods, and forecasting. Applications to marketing; managerial, human resource; financial and production planning; and other related business topics. Use of computers in statistical analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 5093 Study Abroad: Applied Business Studies
Description: A study of a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 5200 Selected Master of Business Administration Topics
Prerequisites: Admission to the MBA program.
Description: Selected topics dealing with business decision-making and contemporary business issues. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 5513 Fundamentals of Business Analytics
Prerequisites: Graduate standing in the SSB or permission from the MBA/MSIS/MSTM director or assistant director, or instructor.
Description: Introduction to a set of analytic tools, including exploratory and graphical techniques, variable associations, simple regression, multiple regression, decision trees, logistic regression, segmentation, RFM, design of experiments, and forecasting techniques, and use of tools for better business decisions.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Business Admin

BADM 5713 Analysis of the Multinational Firm
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Identification and analysis of the managerial, financial, and market problems facing the multinational firm. Focus is empirical and stressing application of ecological and quantitative tools to the study of the multidimensional nature of the international business environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6000 Research and Thesis
Prerequisites: Approval of advisory committee.
Description: Offered for variable credit, 1-9 credit hours, maximum of 30 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 6100 Seminar in Business Administration
Prerequisites: Consent of instructor.
Description: Interdisciplinary in nature; focused on research methodology. Offered for variable credit, 3-6 credit hours, maximum of 12 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

BADM 6200 Instructional Leadership and Academic Curriculum in Business
Description: This course is designed to introduce the nature of education and the practices, ideas, and concepts that are fundamental to higher education course instruction. Topics to be discussed include: The Nature of Education, Purpose of Curriculum, Models on Instruction, Assessment Strategies, Epistemology, Pedagogy, Course Design, Instructional Sequencing. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6343 Advanced Methods in MSIS Research
Prerequisites: Doctoral standing.
Description: Development of advanced methodological skills necessary to carry out research in the chosen area of study. Skills related to any one of the areas within the broad, interdisciplinary field of management science and information systems, such as management information systems, management science, telecommunications, and operations management. Same course as MGMT 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6353 Advanced Methods in Management Research
Prerequisites: Doctoral student standing and consent of instructor.
Description: Course examines issues in theory building and development, strategies for collecting behavioral research. At conclusion of course, student should be able to: develop research questions, develop appropriate measures for constructs to be tested, and design research study using various methodologies. Same course as MSIS 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6513 Org Science I: Micro Issues in Business
Prerequisites: Permission from the director of the PhD option in Executive Research.
Description: Provides an overview of the topics and research in behavior primarily at the individual and team level from different domains in business such as consumer behavior in marketing, organizational behavior in management, and behavioral research in accounting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6523 Org Science II: Macro Issues in Business
Prerequisites: Permission from the director of the PhD option in Executive Research.
Description: Examines topics and research in business focusing particularly on the major theories applicable at the SBU, firm level and above. Topics include theories of globalizing business and national culture, agency theory, transaction cost theory, pricing theories, corporate governance and control, entry mode choice, and CEO compensation strategies. Each topic is introduced through a review of seminal theories which are then reinforced with current research that applies and/or tests these theories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6533 Creativity, Innovation and Leadership
Prerequisites: Permission from the director of the PhD option in Executive Research.
Description: Examines the creative process and the role of leadership in driving the creative process within organizations. Covers issues such as works of genius, everyday problem solving, the role of intelligence, innovative environments, creative analysis, creative leadership, consumer creativity, and co-creation. The foundation of each topic is theory-driven research with an occasional management practice perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6713 Theory Building and Scientific Research in Business
Prerequisites: Doctoral student status and consent of instructor.
Description: Examination of theory building and research methods from a business perspective. Understanding of theory and methods relevant to research in the business disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6723 Dissertation Design
Prerequisites: Permission from the director of the PhD option in Executive Research.
Description: Introduces doctoral candidates to the dissertation-writing process. Helps students get organized, prepare a dissertation timeline, develop effective writing strategies, choose or refine a dissertation topic, write a dissertation proposal, and successfully defend a completed dissertation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

BADM 6913 Mixed Methods in Management Research
Prerequisites: Permission from the director of the PhD option in Executive Research.
Description: Introduces students to both quantitative and qualitative research methodologies, including designs for data collection and analysis. Addresses the integration of qualitative and quantitative design methodologies in studying organizational issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

Business Analytics (BAN)

BAN 5100 Professional Development in Business Analytics
Prerequisites: Admission to the MS in Business Analytics program or consent of director of MS in Business Analytics.
Description: Career and professional development of MS in Business Analytics students. A blend of guest speakers, projects, and exercises used to better prepare students for advanced business analytics careers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing

BAN 5400 Practicum in Business Analytics
Prerequisites: Consent of director of MS in Business Analytics and satisfactory completion of six hours of BAN 5000- or MKTG 5000-level courses.
Description: Professionally supervised experience in business analytics projects for which the student assumes a degree of professional responsibilitiy. Activities approved in advance by the instructor and must reflect graduate level analysis. May consist of full or part-time business analytics experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

BAN 5511 Web Analytics and Digital Marketing
Prerequisites: Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.
Description: Learn how to use web analytics tools and techniques to improve digital marketing.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5521 GIS Applications in Marketing Analytics
Prerequisites: Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.
Description: Learn how to use geographical information systems (GIS) as a methodological tool and analyze spatial data to make better marketing decisions.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5530 Consulting in Marketing Analytics
Prerequisites: Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.
Description: Learn how analytics consultants must communicate with clients to establish relationships, build trust, propose solutions, handle objections and otherwise effectively manage the relationship aspect of the engagement. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5541 Using R in Marketing Analytics
Prerequisites: Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.
Description: Learn how to use the R computing environment (and language) for analytics applications. The focus of the course will be on the usage of R and various R packages for analytics applications and not the theory or discussion behind various analytics techniques.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5551 Optimization Applications in Marketing Analytics
Prerequisites: Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.
Description: This course provides an introduction to practical applications of mathematical programming/operations research using SAS/OR.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5560 Business Analytics Research and Communications
Prerequisites: MS BAN or MS BADS or consent of instructor.
Description: To be effective in today's business environment, an analyst needs to be able to translate business data into information to make better decisions. An effective analyst must also be able to communicate findings in verbal and written forms to a wide variety of audiences. This course introduces interactive techniques to learn and master multiple communication styles used in business analytics and research. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5561 Customer Lifetime Value Models in Marketing
Prerequisites: Admission into MSBAN program or, approval from MSBAN program director or, consent of instructor.
Description: The course will introduce mathematical, modeling, financial, and business/marketing concepts associated with implementing Customer Lifetime Value (CLV). Topics will cover the financial concepts and mathematical formulae for CLV calculations including common approaches to building the statistical/predictive models required for projecting future value. In addition, interpretation of CLV output and best practices for using CLV to improve business and marketing strategies will be discussed.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5563 Strategic Marketing and Business Analytics
Prerequisites: MS BAN or MS BADS or MBA or GCRT BADS or consent of instructor.
Description: The course is based on an international business stimulation where students work in groups to develop a business from scratch and manage it globally across multiple continents. It is designed to broaden students' understanding of international target market selection and positioning of brands in the global market, value creation in product design, cash flow planning, profitability analysis, production planning and inventory management by analyzing marketing and management data. The overreaching goal of this course is for students to learn how to balance strategic versus tactical decisions by analyzing marketing and management data from the simulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

BAN 5570 Business Analytics Research and Communications II
Prerequisites: BAN 5560
Description: To be effective in today's business environment, an analyst needs to be able to translate business data into information to make better decisions. An effective analyst must also be able to do independent research and communicate findings in verbal and written forms to a wide variety of audiences. The course addresses how to do research and communicate findings from research. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

BAN 5733 Descriptive Business Analytics
Prerequisites: MS BAN or MS BADS or GCRT BADS or consent of instructor.
Description: Learn how to describe and analyze business data using visualization and statistical tools. Topic coverage will include different types of graphs and plots, cross-tabs, variable associations, regression, ANOVA and other related models. An overview of basic probability concepts and statistical sampling techniques will also be provided. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5733 or MKTG 5983 and BAN 5733 for degree credit.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

BAN 5743 Predictive Business Analytics
Prerequisites: BAN 5733 or consent by instructor.
Description: Learn how to use predictive analytic tools such as logistic regression, neural networks, decision trees and other classification and prediction models to generate deeper business insights and to improve business decision making. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5963 or MKTG 5743 and BAN 5743 for degree credit.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

BAN 5753 Advanced Business Analytics
Prerequisites: BAN 5743 and MS BAN or MS BADS or GCRT BADS or consent by instructor.
Description: Learn how to use advanced modeling techniques such as Self Organizing Maps (SOM) and Kohonen Networks, two-stage models, survival models, credit scoring models, time series forecasting models, advanced text analytics etc. to improve business decision making. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5883 and BAN 5753 for degree credit.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

BAN 5763 Advanced Marketing Research Analytics
Prerequisites: BAN 5753 or consent by instructor.
Description: Learn how to properly use various multivariate data analysis techniques including multiple regression, MANOVA, Discriminant analysis, Clustering, MDS and Conjoint Analysis. Students may not take both MKTG 6413 and BAN 5763 for degree credit.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

BAN 5900 Advanced Practicum in Business Analytics
Prerequisites: MS BAN or MS BADS and consent of instructor.
Description: Professionally supervised experience in advanced business analytics projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the instructor and must reflect advanced graduate level analysis. May consist of full or part-time advanced business analytics experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

Business Communications (BCOM)

BCOM 3113 Written Communication
Prerequisites: 50 credit hours.
Description: Analysis of business communication problems in terms of generally accepted communication principles. Practice in neutral and positive, negative and persuasive written messages. Practice writing a proposal and a business report. Students may not take both BCOM 3113 and BCOM 3443 for degree credit. May not be taken for degree credit with ORGL 3113. Previously offered as GENA 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

BCOM 3223 Oral Communication
Prerequisites: 50 credit hours.
Description: Prepares students for oral and written communication in the workplace. Emphasis on planning and presenting of ideas to audiences as an individual and as a member of a team. Grammar skills and principles of effective communication will be explored. Previously offered as GENA 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

BCOM 3333 Advanced Business Communication
Prerequisites: BCOM 3113 and 6 hours of English.
Description: An advanced written and oral business communication class which focuses on the fundamentals of writing and presenting business reports. The course will include coverage of mechanics, content, structure, and research of business reports as well as Power Point presentation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

BCOM 3443 Business Communication for International Students
Prerequisites: 50 credit hours.
Description: Analysis of business communication problems in terms of generally accepted communication principles. Practice in written messages, a proposal, and a business report. This course is specifically designed for students who learned English as a second language. Students may not take both BCOM 3113 and BCOM 3443 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

BCOM 5113 Seminar in Administrative Communication
Description: Understanding and application of valid and relevant communication principles and theories. Designed to develop management-level personnel who can effectively and efficiently use oral and written communications as administrative tools to organizational functioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

BCOM 5210 Business Communication Applications
Description: Application of communication techniques to the business setting. Interpersonal communication skills necessary for the manager in a business organization. Problems and applications within the modern business setting. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Management

Business Honors (BHON)

BHON 4053 Critical Issues in Global Business
Prerequisites: Junior standing, admission to the Honors Program.
Description: Current critical issues facing business in a global environment. Social, political, economic, and technological sectors of the environment. Framework of study on geographical and political regions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin
General Education and other Course Attributes: Honors Credit

BHON 4063 Topics in Contemporary Business
Prerequisites: Junior standing, admission to the Honors Program.
Description: Topics of interest in the contemporary business and economic environment. The social role of the corporation; U.S. competitiveness and business and environmental issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin
General Education and other Course Attributes: Honors Credit

BHON 4073 Literature in Business
Prerequisites: Junior standing, admission to the Honors Program.
Description: Foundations of American business through selected literary masterpieces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Business Admin
General Education and other Course Attributes: Honors Credit

BHON 4990 Business Honors Thesis
Prerequisites: Honors Program participation, senior standing, college approval.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with college honors in business. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
General Education and other Course Attributes: Honors Credit

Chemical Engineering (CHE)

CHE 1112 Introduction to the Engineering of Coffee (LN)
Description: A non-mathematical introduction to the engineering aspects of roasting and brewing coffee. Simple engineering concepts are used to study methods for roasting and processing of coffee. The course will investigate techniques for brewing coffee such as a drip coffee, pour-over, French press, AeroPress, and espresso. Laboratory experiences focus on roasting and brewing coffee to teach introductory engineering concepts to both engineers and non-engineers.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHE 2023 Introduction to Chemical Engineering Thermodynamics
Prerequisites: CHEM 1515, MATH 2144, and PHYS 2014 with a grade of "C" or better.
Description: Systems approach to modeling industrial process, application of first and second laws, properties of substances, separate strategies using thermodynamic principles, and power generation cycles. May not be used for degree credit with ENSC 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 2033 Introduction to Chemical Process Engineering
Prerequisites: CHEM 1515, (CHE 2023 or ENSC 2213), ENGR 1412, ENGL 1113, ENGR 1111 with grades of "C" or better and concurrent enrollment in MATH 2233 or MATH 3263.
Description: Application of mathematics and scientific principles to solving chemical engineering problems. Simple material and energy balances applied to process design. The nature and application of unit operations and unit processes to the development of chemical processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3 Other: 0
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Chemical Engineering

CHE 2581 Chemical Engineering Seminar I
Prerequisites: CHE majors.
Description: Through guest lectures and home assignments, preparation and planning for a CHE career and success in the CHE curriculum. Professional growth topics oriented to students in the sophomore-level courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3013 Rate Operations I
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Development and application of phenomenological and empirical models to the design and analysis of fluid processing and heat transfer unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3113 Rate Operations II
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, and CHE 3543 with grades of "C" or better.
Description: Development and application of phenomenological and empirical models to the design and analysis of mass transfer and separations unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3123 Chemical Reaction Engineering
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, and CHE 3543 with grades of "C" or better.
Description: Principles of chemical kinetics rate concepts and data treatment. Elements of reactor design principles for homogeneous systems; introduction to heterogeneous systems. Course previously offered as CHE 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3202 Interdisciplinary Design and Build for Chemical Systems I
Prerequisites: CEAT major or consent of instructor.
Description: Interdisciplinary design course that provides independent work experience, professional development, and assigned design-build problems.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3211 Interdisciplinary Design and Build for Chemical Systems II
Prerequisites: CEAT major and CHE 3202 or consent of instructor.
Description: Continuation of CHE 3202. Interdisciplinary design course that provides independent work experience, professional development, and assigned design-build problems.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3333 Introduction to Transport Phenomena
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Molecular concepts of mass, momentum, and thermal energy diffusion. Theories and correlations for transport properties of viscosity, thermal conductivity, and diffusivity. Shell balance techniques to derive differential equations of change. Application of ODEs to simple transport phenomena problems. Turbulent flow analysis. Use of CFD software for analysis. Course previously offered as CHE 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3473 Chemical Engineering Thermodynamics
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Application of thermodynamics to chemical process calculations. Behavior of fluids, including estimation of properties by generalized methods. Study of chemical thermodynamics, including heats of reaction, chemical reaction, and phase equilibria.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3543 Introduction to Chemical Process Analytics
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better..
Description: Data generation and analysis methods from chemical processes and experiments. Model development using programming. Data interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3581 Chemical Engineering Seminar II
Prerequisites: CHE 2033, CHE 2581, ENGR 1111.
Description: Through guest lectures and home assignments, preparation and planning for a CHE career and success in the CHE curriculum. Professional growth topics oriented to students in the junior-level CHE courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4002 Chemical Engineering Laboratory I
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, CHE 3543 with grades of "C" or better.
Description: Application of CHE fundamentals and unit operation principles to the analysis of bench and pilot-scale equipment. Primarily fluid processing and heat exchange. Design of experiments on non-ideal units to generate credible data useful for validation of principles and for engineering decisions. Interpretation of experimental data and presentation of results.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemical Engineering

CHE 4073 Introduction to Tissue Engineering
Prerequisites: Senior standing or higher and ENSC 3233 and ENSC 3313 and MATH 2153; or by consent of instructor.
Description: An overview of the principles of tissue engineering and regenerative medicine, including a general understanding of tissue growth and development, and an investigation of the engineering principles needed to design tissues and organs. May not be used for degree credit with CHE 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4112 Chemical Engineering Laboratory II
Prerequisites: CHE 3113, CHE 3123, CHE 4002 with grades of "C" or better.
Description: A continuation of CHE 4002. Primary reaction and mass transfer processes.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemical Engineering

CHE 4124 Chemical Engineering Design I
Prerequisites: CHE 3113, CHE 3123, CHE 4002 with grades of "C" or better.
Description: Economic analysis of process plants and systems of equipment; methods for estimating plant investment requirements and operating costs; economic evaluation and optimal design of chemical process systems; basic equipment and process design calculations.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 4133 Introduction to Catalysis and Photocatalysis
Prerequisites: Senior standing or higher and CHE 3123 or consent of instructor.
Description: Molecular level insight into catalysis and photocatalysis from the basics of chemistry and chemical engineering. Topics covered include homogeneous catalysis, heterogeneous catalysis, molecular photocatalysis, and photocatalysis on metals and metal oxides. The rational design of catalysts using first-principle (e.g., density functional theory) calculations is covered. Advancements made in the experimental and computational catalysis fields to convert renewable natural resources such as solar light and cellulosic biomass into electricity, fuels, valuable chemicals and pharmaceuticals. May not be used for degree credit with CHE 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4183 Drug Delivery
Prerequisites: Senior standing or higher; or by consent of instructor.
Description: The future of medicine seems focused on the technologies for drug delivery and on large, macromolecular drugs such as genes and proteins. This course is intended to give you an overview of macromolecular drugs (i.e., genes and proteins) and the methods for their delivery. May not be used for degree credit with CHE 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4224 Chemical Engineering Design II
Prerequisites: CHE 4112 and CHE 4124.
Description: A continuation of CHE 4124. Economic analysis of process plants and equipment. Design of chemical processing equipment and chemical plants. Application of computer techniques to chemical engineering design.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 4283 Bioprocess Engineering
Prerequisites: CHE 3123 (or instructor consent).
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as BAE 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4293 Biomedical Engineering
Prerequisites: ENSC 3233, (CHE 2023 or ENSC 2213); or consent of instructor.
Description: Introduction to engineering principles applied to biomedical applications. Biomaterials, drug delivery, artificial organs, transport in biological systems, tissue engineering and modeling of biological systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4303 Introduction to Science and Engineering Research
Prerequisites: Senior level or by consent of instructor.
Description: This course is designed to expose senior level undergraduate students to principles and practice common to research in science and engineering, and accelerate student development towards independent and creative research prowess upon entering a graduate program. May not be used for degree credit with CHE 5303 or CHE 5302. Previously offered as CHE 4302.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4323 Electrochemical Engineering
Prerequisites: ENSC 2213 or CHE 2023, ENSC 3233; or consent of instructor.
Description: An introduction to the fundamental principles of electrochemistry and its applications in different engineering systems for energy, chemical, biomedical, and electronics industries. May not be used for degree credit with CHE 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4343 Environmental Engineering
Prerequisites: CHE 3123 or consent of instructor.
Description: Application of science and engineering principles to minimize the adverse effects of human activities on the environment. National and state environmental regulations. Predictive movement and fate of chemicals in the geospheres. Multi-media pollution assessment, analysis and control. Consideration of safety, health and environmental issues from a process standpoint.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4483 Introduction to Spectroscopy in Engineering Research, Development, and Practice
Prerequisites: Senior standing or higher; or by consent of instructor.
Description: This course will introduce the fundamentals and practice of spectroscopic methods that the practicing engineer will most likely encounter in fields like agriculture, aerospace, food science, chemical conversion and refining, catalysis, medicine, petroleum engineering, polymer development and production, materials science, plastics reclamation and recycling, on-line process control, pharmaceutical development, and others. May not be used for degree credit with CHE 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4493 Introduction to Molecular Modeling and Simulation
Prerequisites: Senior standing or higher and any one of the following courses – CHE 3473, CHEM 3433, CHEM 3553, MAE 3223, MAE 5683, MAE 5693, BIOC 3223 or consent of instructor.
Description: Theory of statistical mechanics and its application to computing thermodynamic, transport and phase equilibria properties of fluids. Modeling of matter at molecular level and atomistic simulation methods such as Monte Carlo and molecular dynamics. Quantum calculation of thermodynamics for industrially relevant reactions. Software used: Cassandra, Gromacs, LAMMPS, and Gaussian. May not be used for degree credit with CHE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4523 Introduction to Colloid Processing
Prerequisites: MATH 2153 and CHEM 1515.
Description: The physics and chemistry governing the behavior of microscopic particles in dilute and concentrated suspensions. Interparticle interaction influence on viscosity, viscoelasticity, yield stress, and shear thinning. Practical applications of colloids principles in industrial practice. No credit for students with credit in CHE 5523. Same course as MSE 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4533 Colloidal and Interfacial Phenomena
Prerequisites: Senior standing.
Description: This course surveys applications and fundamental aspects of colloidal and interfacial phenomena, industrial applications include pharmaceuticals, energy, agriculture, and food/beverage, and will explore systems such as surfactants, polymers, emulsions, dispersions, foams, and particles at interfaces. The course includes explorations of emulsion stability mechanisms, interparticle interactions, surfactant behavior, and interfacial stability mechanisms. Experimental techniques used to characterize these systems such as interfacial tenslometry and dispersion sizing will be discussed. May not be used for degree credit with CHE 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4543 Machine Learning for Chemical Processes
Prerequisites: MATH 2144, CHE 3543, or Consent of Instructor.
Description: The emphasis of the course will be to utilize concepts from statistics, calculus, and linear algebra to develop machine learning models applicable to a wide range of problems in engineering, natural and social sciences, and finance. Special emphasis will be given to the application of methods in the chemical engineering domain. However, students from other disciplines will find the methods broadly applicable to their areas of interest. Homework assignments and project will provide opportunities to apply the knowledge in a broader context. May not be used for degree credit with CHE 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4581 Chemical Engineering Seminar III
Prerequisites: Senior standing, CHE 3581.
Description: Through guest lectures and home assignments, preparation and planning for a ChE career and success in the ChE curriculum. Professional growth topics oriented to students in the senior-level ChE courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4603 Introduction to Membrane Separations
Prerequisites: Senior standing or higher and CHE 3113 or consent of instructor.
Description: Basic principles of membrane technology: membrane synthesis processes and molecular separation mechanisms for different types of membranes. General overview of many different membrane processes. Basic transport equations and fundamental concepts with examples and industrial applications. Includes a project/discussion for a membrane reactor model. May not be used for degree credit with CHE 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4753 Introduction to Applied Numerical Computing for Scientists and Engineers
Prerequisites: Senior standing or higher, and MATH 2233 or MATH 3263, and knowledge of programming, or consent of instructor.
Description: Practical software tools for computational problem solving in science and engineering: version control (e.g., Git), mathematical typesetting (e.g., LaTeX), graphical user interfaces, and high level program languages with libraries of solvers and visualization tools (e.g., Python and MATLAB). Application of numerical computing methods to solve systems of differential and algebraic equations and to estimate model parameters using optimization. May not be used for degree credit with CHE 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4773 Introduction to Computational Fluid-Particle Dynamics
Prerequisites: Senior standing or higher and CHE 3333 or consent of instructor.
Description: Computational fluid-particle dynamics (CFPD) modeling strategies and simulation of multiphase flow transport phenomena such as particle tracking, deposition, reaction, and erosion. Detailed flow visualization using multiphase flow models on ANSYS CFX and Fluent platforms. Application of numerical techniques to simulate processes defined by first-principles. Application of CFPD for drug formulation optimization, lung aerosol dynamics, separation processes, reactions in stirred tanks and plug flow reactors. May not be used for degree credit with CHE 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4783 Nanomaterial Synthesis and Characterization
Prerequisites: Senior standing or consent of instructor.
Description: Exposing students to the principles and concepts of nanoscience and nanotechnology with focus on nanomaterial synthesis and characterization, and accelerating student development towards an effective literature review on a selected topic. May not be used for degree credit with CHE 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4843 Chemical Process Instrumentation and Control
Prerequisites: ENSC 2613, ENGR 2421 with grades of "C" or better, CHE 4112 and CHE 4124.
Description: Process instrumentation for measurement and control. Process dynamics and modeling. Linearization. Classical control system analysis and design. Tuning. Communication through block diagrams and P&IDs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4880 Special Topics
Prerequisites: Senior standing.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 4990 Special Problems
Prerequisites: Senior standing.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5000 Master's Thesis
Prerequisites: Approval of major professor.
Description: Methods used in research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5030 Professional Practice
Prerequisites: Senior standing and consent of instructor.
Description: Application of chemical engineering principles to the solution of real-life engineering problems in an actual or simulated industrial environment. Includes application of design and testing procedures, economic evaluation and reporting on one or more assigned projects. Offered for variable credit, 2-6 credit hours, maximum of 8 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5073 Tissue Engineering
Prerequisites: Graduate standing and permission of instructor.
Description: Tissue engineering (TE) and the material strategy for different tissue constructs in bone TE, liver TE, neural TE, intestine TE, etc. will be discussed in this course. Same as MSE 5073. May not be used for degree credit with CHE 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5110 Special Topics in Chemical Engineering
Prerequisites: Consent of instructor.
Description: Small group and individual projects in unit operations, unit procedures, chemical kinetics, computer applications, process modeling, or any of a wide range of chemical engineering topics. May be repeated for credit if subject matter varies. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5123 Advanced Chemical Reaction Engineering
Prerequisites: CHE 4473.
Description: Advanced principles and applications of chemical kinetics in catalysis, heterogeneous systems, non-ideal reactions, polymerization, and biological reactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5133 Catalysis and Photocatalysis
Prerequisites: Graduate standing or CHE 3123 or consent of instructor.
Description: Molecular level insight into catalysis and photocatalysis from the basics of chemistry and chemical engineering. Topics covered include homogeneous catalysis, heterogeneous catalysis, molecular photocatalysis, and photocatalysis on metals and metal oxides. The rational design of catalysts using first-principle (e.g., density functional theory) calculations is covered. Advancements made in the experimental and computational catalysis fields to convert renewable natural resources such as solar light and cellulosic biomass into electricity, fuels, valuable chemicals and pharmaceuticals. May not be used for degree credit with CHE 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5183 Drug Delivery
Prerequisites: Graduate standing or consent of instructor.
Description: The future of medicine seems focused on the technologies for drug delivery and on large, macromolecular drugs such as genes and proteins. This course is intended to give you an overview of macromolecular drugs (i.e., genes and proteins) and the methods for their delivery. May not be used for degree credit with CHE 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5213 Advanced Transport Phenomena
Prerequisites: CHE 3333 (or equivalent), or graduate student standing in the School of Chemical Engineering, or a closely related, calculus-based STEM discipline, or consent of instructor.
Description: Mechanisms and modeling of mass, momentum and heat transport with an emphasis on chemical, petroleum, and biomedical engineering applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5233 Bioseparations
Prerequisites: BAE 3013 or CHE 3013.
Description: Study of separations important in food and biochemical engineering such as leaching, extraction, expression, absorption, ion exchange, filtration, centrifugation, membrane separation, and chromatographic separations. Course available online only through AG*IDEA consortium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5263 Advanced Biomaterials Science and Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Engineering issue that are implicit in understanding the interactions of living tissue and processed materials will be introduced. Emphasis is on identifying the processes in which cells interact with surfaces and particulate matter and the outcome of these interactions. Highlighted biological responses will include inflammation and coagulation. Also, biomaterial issues related to drug delivery and tissue engineering will be discussed. Same course as MAE 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5273 Basic Physiology and Physiological System Analysis for Engineers
Prerequisites: Graduate standing or consent of instructor.
Description: The goals of this class are: 1) to introduce the basic physiology concepts used widely in biomedical engineering research; 2) to introduce and develop engineering concepts and approaches for quantitative analysis of physiological systems. Engineering principles will be applied to study mechanical properties of various tissue and organ systems under normal and diseased conditions. Knowledge obtained from this class can help engineers to apply engineering principles to the design and development of medical devices for disease treatments. Same course as MAE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5283 Advanced Bioprocess Engineering
Prerequisites: Consent of instructor.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up, and downstream processing. Same course as BAE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5293 Advanced Biomedical Engineering
Prerequisites: Consent of instructor.
Description: Principles and engineering analysis of biomedical processes. Artificial organs, biomaterials, tissue engineering, transport in biological systems, biomedical imaging and drug delivery systems. Same course as MAE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5303 Introduction to Science and Engineering Research
Prerequisites: Graduate level or by consent of instructor.
Description: This course is designed to expose new graduate students to principles and practice common to research in science and engineering, and accelerate student development towards independent and creative research prowess. May not be used for degree credit with CHE 4302, CHE 4303, and PETE 6813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5323 Electrochemical Engineering
Prerequisites: Graduate standing.
Description: An introduction to the fundamental principles of electrochemistry and its applications in different engineering systems for energy, chemical, biomedical, and electronics industries. May not be used for degree credit with CHE 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5343 Advanced Environmental Engineering
Prerequisites: Consent of instructor.
Description: Science and engineering principles to minimize the adverse effects of human activities on the environment. National and state regulations. Predictive movement and fate of chemicals in the geospheres. Multi-media pollution assessment, analysis, and control. Consideration of safety, health, and environment issues from a process standpoint. Special project required. Credit not allowed if CHE 4343 was taken.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5373 Process Simulation
Prerequisites: CHE 5843 or concurrent enrollment or with professor's consent.
Description: Computer-aided process synthesis, simulation, analysis and optimization. Systematic tools for developing and screening potential chemical process flow sheets. Use of commercial process simulators to aid in evaluating process designs. Practical problems will be used as examples and case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5483 Spectroscopy in Engineering Research, Development, and Practice
Prerequisites: Graduate standing or consent of instructor.
Description: This course will introduce the fundamentals and practice of spectroscopic methods that the practicing engineer will most likely encounter infields like agriculture, aerospace, food science, chemical conversion and refining, catalysis, medicine, petroleum engineering, polymer development and production. materials science, plastics reclamation and recycling, on-line process control, pharmaceutical development, and others, May not be used for degree credit with CHE 4483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5493 Molecular Modeling and Simulation
Prerequisites: Graduate standing and any one of the following courses: CHE 3473, CHEM 3433, CHEM 3553, MAE 3223, MAE 5683, MAE 5693, BIOC 3224 or consent of instructor.
Description: Theory of statistical mechanics and its application to computing thermodynamic, transport and phase equilibria properties of fluids. Modeling of matter at molecular level and atomistic simulation methods such as Monte Carlo and molecular dynamics. Quantum calculation of thermodynamics for industrially relevant reactions. Software used: Cassandra, Gromacs, LAMMPS, and Gaussian. May not be used for degree credit with CHE 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5523 Colloid Processing
Prerequisites: Graduate standing in engineering, physics, or chemistry or consent of instructor.
Description: The physics and chemistry governing the behavior of microscopic particles in dilute and concentrated suspensions. Interparticle interaction influence on viscosity, viscoelasticity, yield stress, and shear thinning. Practical application of colloids principles in industrial practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5533 Colloidal and Interfacial Phenomena
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. May not be used for degree credit with CHE 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5543 Machine Learning for Chemical Processes
Prerequisites: Graduate standing, MATH 2144, and CHE 3543; or Consent of Instructor.
Description: The emphasis of the course will be to utilize concepts from statistics, calculus, and linear algebra to develop machine learning models applicable to a wide range of problems in engineering, natural and social sciences, and finance. Special emphasis will be given to the application of methods in the chemical engineering domain. However, students from other disciplines will find the methods broadly applicable to their areas of interest. May not be used for degree credit with CHE 4543. Previously offered as CHE 5990.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5603 Membrane Separations
Prerequisites: Graduate standing and CHE 3113 or consent of instructor.
Description: Basic principles of membrane technology: membrane synthesis processes and molecular separation mechanisms for different types of membranes. General overview of many different membrane processes. Basic transport equations and fundamental concepts with examples and industrial applications. Includes a project/discussion for a membrane reactor model. May not be used for degree credit with CHE 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5633 Stagewise Operations
Description: Stagewise separation in binary and multicomponent systems. Development of theoretical techniques with application to typical situations in vapor-liquid, liquid-liquid and solid-liquid systems. Use of digital and analog techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5703 Optimization Applications
Prerequisites: Graduate standing.
Description: A survey of various methods of unconstrained and constrained linear and non-linear optimization. Applications of these methodologies using hand-worked examples and available software packages. Intended for engineering and science students. Same course as ECEN 5703, IEM 5023 & MAE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5723 Plasmonic Photocatalysis
Prerequisites: CHE 5123; or by consent of instructor.
Description: The field of plasmonic photocatalysis grew tremendously in the last decade. In this course, the current state of the art plasmonic photocatalysis are reviewed through the rigorous collection of literature. The advantages of the visible-light-driven plasmonic photocatalysis over the conventional thermal energy-driven heterogeneous catalysis will be discussed. The fundamental insight into photocatalytic mechanisms by which the charge carriers (electrons and holes) are formed and transferred to adsorbates to drive chemical transformations on the surface of plasmonic nanocatalysts will also be discussed. The computational methods used to predict and understand the photocatalytic activity and selectivity in plasmonic photocatalysis will also be reviewed. Finally, the current challenges, new opportunities, and future outlook for plasmonic photocatalysis will be presented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5733 Neural Networks
Prerequisites: Graduate standing.
Description: Introduction to mathematical analysis of networks and learning rules and on the application of neural networks to certain engineering problems, image and signal processing and control systems. Same course as ECEN 5733 & MAE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5743 Chemical Engineering Process Modeling
Description: Chemical engineering systems and process models. Analytical and numerical methods of solution of resulting equations with computer methods in a chemical engineering context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5753 Applied Numerical Computing for Scientists and Engineers
Prerequisites: Graduate standing, and MATH 2233 or MATH 3263, and knowledge of programming, or consent of instructor.
Description: Practical software tools for computational problem solving in science and engineering: version control (e.g., Git), mathematical typesetting (e.g., LaTeX), graphical user interfaces, and high level program languages with libraries of solvers and visualization tools (e.g., Python and MATLAB). Application of numerical computing methods to solve systems of differential and algebraic equations and to estimate model parameters using optimization. May not be used for degree credit with CHE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5773 Computational Fluid-Particle Dynamics
Prerequisites: Graduate standing and CHE 3333 or consent of instructor.
Description: Computational fluid-particle dynamics (CFPD) modeling strategies and simulation of multiphase flow transport phenomena such as particle tracking, deposition, reaction, and erosion. Detailed flow visualization using multiphase flow models on ANSYS CFX and Fluent platforms. Application of numerical techniques to simulate processes defined by first-principles. Application of CFPD for drug formulation optimization, lung aerosol dynamics, separation processes, reactions in stirred tanks and plug flow reactors. May not be used for degree credit with CHE 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5783 Nanomaterial Synthesis and Characterization
Description: Exposing students to the principles and concepts of nanoscience and nanotechnology with focus on nanomaterial synthesis and characterization, and accelerating student development towards an effective literature review to come up with novel idea on a selected topic. May not be used for degree credit with CHE 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5843 Principles of Chemical Engineering Thermodynamics
Description: Principles of thermodynamics. Properties of fluids and prediction of thermodynamic properties. Phase and chemical equilibrium. Thermodynamics in unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5850 Advanced Process Control Laboratory
Prerequisites: Graduate standing and permission of instructor.
Description: Instrumentation systems and control strategies on pilot-scale chemical processes. Calibration, filtering, dynamic modeling, tuning, advanced control, and method evaluation. Students will learn industrial practices and cope with many non-idealities. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 1 Lab: 2-4 Contact: 3-5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 5853 Advanced Chemical Process Control
Prerequisites: CHE 4843 or equivalent.
Description: General concepts and approaches of model-based control. Studies in the application of process-model-based control and model-predictive control on multivariable, nonlinear, nonstationary, noisy processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5873 Air Pollution Control Engineering
Description: Causes, effects and control of atmosphere pollution. Same course as CIVE 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5880 Special Problems
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5990 Special Problems
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6000 Doctoral Thesis
Prerequisites: Consent of major professor.
Description: The doctoral candidate registers for a minimum of 1 semester credit hour to a maximum of 15 semester credit hours in each semester during which dissertation work is in process. Methods used in research and thesis writing. An original investigation of a problem in chemical engineering and its report in a dissertation. Offered for variable credit, 1-15 credit hours, maximum of 54 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6010 Chemical Engineering Seminar
Prerequisites: Consent of major professor.
Description: Advanced research and development topics. Offered for variable credit, 1 credit hour, maximum of 10 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6223 Advanced Chemical Engineering Thermodynamics
Prerequisites: CHE 5843.
Description: Phase equilibrium in multicomponent systems. Irreversible processes. Properties of fluids and the prediction of properties by statistical methods. Application of thermodynamics to unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 6440 Advanced Topics in Chemical Engineering
Description: Topics in chemical engineering unit operations in design. Advanced mathematical techniques in chemical engineering problems. May be repeated for credit if subject matter varies. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6703 Research Methods in Chemical Engineering
Prerequisites: MS or PhD candidacy in chemical engineering or consent of instructor.
Description: Methods and skills required to successfully conduct chemical engineering research projects. Maintaining research records, experiment design, data validation, results presentation and research ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

Chemistry (CHEM)

CHEM 1014 Chemistry In Civilization (LN)
Description: A survey course presenting the concepts and principles of chemistry for students outside the health, science and engineering fields. This course covers the basics of chemistry and chemical contributions to society such as polymers, consumer chemicals, drugs, and radioactivity. May not be used for degree credit with CHEM 1215 or CHEM 1314.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1215 Chemical Principles I (LN)
Prerequisites: MATH 1483 or MATH 1513 or a higher level math course with a "C" or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: The beginning chemistry course recommended for students in the applied biological sciences. This course covers chemical principles and their applications to their properties and transformations of matter, including periodic classification of the elements, laws of chemical combination, atomic and molecular structure, and chemical bonding. Course previously offered as CHEM 1015.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1225 Chemical Principles II (LN)
Prerequisites: Minimal grade of "C" in CHEM 1215 or CHEM 1314 or CHEM 1414 or acceptable AP credit.
Description: A continuation of Chemical Principles I for students in the applied biological sciences. Topics include gas laws, chemical equilibria, acid/base chemistry, oxidation/reduction, elementary chemical thermodynamics, and introduction to organic molecules.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1314 Chemistry I (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher with a "C" or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: The beginning chemistry course recommended for students in basic biological sciences (including pre-medical science and pre-veterinary sciences), physical sciences and engineering. This course covers chemical principles and their applications to the properties and transformations of matter, including periodic classification of the elements, laws of chemical combination, gas laws, atomic and molecular structure, and chemical bonding.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1414 General Chemistry for Engineers (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher with a "C" or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: One seminar survey of general chemistry for engineering students. Topics include physical properties of states of matter, stoichiometry, atomic theory, periodic properties, bonding, thermodynamics, equilibrium, acid-base and redox reactions, electrochemistry. Topics will be discussed with respect to applications to materials, energy and environmental topics relevant to engineering students.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1515 Chemistry II (LN)
Prerequisites: Minimum grade of "C" in CHEM 1314 or CHEM 1414 or acceptable AP credit.
Description: A continuation of Chemistry 1 for students in the basic biological sciences (including premedical science and pre-veterinary science), physical sciences, and engineering. Topics include, but not limited to, intermolecular forces, liquids and solids, chemical equilibria, acid/base chemistry, oxidation/reduction, electrochemistry, chemical kinetics, and elementary chemical thermodynamics.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 2113 Principles of Analytical Chemistry
Prerequisites: A grade of "C" or better in CHEM 1515.
Description: Statistical analysis of analytical data, acid-base equilibria, acid-base titrations, electrochemistry, analytical separations, as well as atomic and molecular optical spectroscopy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 2122 Quantitative Analysis Laboratory
Prerequisites: CHEM 2113 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles in CHEM 2113.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 2890 Honors Experience in Chemistry
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Chemistry to partner concurrently with designated lower-division CHEM course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry
General Education and other Course Attributes: Honors Credit

CHEM 2980 Current Topics for Chemical Professionals
Prerequisites: Current enrollment in CHEM 1314 or higher chemistry course.
Description: Current topics for pre-chemical professionals which may include, but are not limited to; Chemistry of Life; Energy; Environmental; Materials; Energy, What's that Stuff?, and Teaching/Learning. The course is intended to provide interested undergraduates with a broader introduction to topics relevant to future trends in chemistry and chemically-related fields. Discussion will be directed by faculty members with expertise in the identified area. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 2990 Special Problems in Chemistry
Prerequisites: CHEM 1314 or concurrent enrollment.
Description: Training in independent work, study of relevant literature and experimental investigation of an assigned problem at the lower-division level. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 3012 Survey of Organic Chemistry Laboratory
Prerequisites: CHEM 3013 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 3013.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3013 Survey of Organic Chemistry
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1515 or acceptable AP credit.
Description: Terminal, one-semester organic chemistry lecture course covering the general principles of nomenclature, structure, bonding, methods of preparation, reactions and use of acyclic, cyclic, and aromatic compounds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3053 Organic Chemistry I
Prerequisites: CHEM 1515 with a "C" or better or acceptable AP credit.
Description: This course is the first of the in-depth sequence of organic chemistry. Topics include nomenclature, structure, stereochemistry, reactivity, properties, and synthesis of organic molecules with an emphasis on reaction mechanisms. This course is required for many life and physical science majors and pre-health students. Consult your degree requirements and professional school admission requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3112 Organic Chemistry Laboratory
Prerequisites: Completion of CHEM 3153 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 3053 and 3153.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3153 Organic Chemistry II
Prerequisites: A grade of "C" or higher in CHEM 3053.
Description: This course is the second of the in-depth sequence of organic chemistry starting with CHEM 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3353 Descriptive Inorganic Chemistry
Prerequisites: A grade of "C" or higher in CHEM 1515, CHEM 1225.
Description: Structures and properties of the elements and their many compounds in the broadest sense which includes the modern technologically important materials, organometallics, and inorganic substances of biological significance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3363 Bioinorganic Chemistry
Prerequisites: Grade of "C" or higher in CHEM 1225 or CHEM 1515 or acceptable AP credit.
Description: Discusses the structural and functional roles of main group and transition metals within biological systems. Topics may include: the transport, distribution and properties of metals in biological systems, the coordination chemistry of biologically active metals, physical methods for determining metalloprotein structure and reactivity, chemical processes including redox processes and long-range electron transfer reactions and metallocofactors and metal clusters. May not be used for degree credit with CHEM 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3413 Physical Chemistry Applications
Prerequisites: Minimum grade of "C" or higher in both CHEM 1515 and MATH 2144.
Description: A practical and applied approach to key topics in physical chemistry, including thermodynamics, chemical equilibria, and chemical kinetics, and how they relate to general chemical and biological processes on a molecular and macroscopic level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3433 Physical Chemistry I
Prerequisites: Minimum grade of "C" or higher in: CHEM 1515 and MATH 2153 and PHYS 2114.
Description: Introductory theoretical analysis of molecular structure, chemical bonding and macroscopic chemical systems using quantum theory, classical and statistical thermodynamics, and kinetics. Previously offered as CHEM 3434.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3532 Physical Chemistry Laboratory
Prerequisites: A grade of "C" or better in CHEM 2122 and CHEM 3433.
Description: Modern laboratory instrumentation, experimental techniques, and computational methods in physical chemistry.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3553 Physical Chemistry II
Prerequisites: A grade of "C" or higher in CHEM 3433.
Description: A continuation of CHEM 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3890 Advanced Honors Experience in Chemistry
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Chemistry to partner concurrently with designated upper-division CHEM course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry
General Education and other Course Attributes: Honors Credit

CHEM 4022 Modern Methods of Chemical Analysis Laboratory
Prerequisites: CHEM 4023 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 4023. May not be used for degree credit with CHEM 4020.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4023 Modern Methods of Chemical Analysis
Prerequisites: A grade of "C" or better in CHEM 2122; and CHEM 3413 or CHEM 3433.
Description: The design, operational principles and practical application of modern instrumental methods used in chemical analysis of natural and artificial materials. Covers the reagents and instruments used in the separation, identification and quantification of the chemical components. May not be used for degree credit with CHEM 4020.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4033 Forensic Chemistry
Prerequisites: CHEM 2113 with a "C" or better.
Description: An introduction to the principles and practices of forensic chemistry, with a focus on the analytical techniques and chemical analyses important in criminal investigations. This lecture course will cover the critical statistical practices necessary for taking convincing quantitative measurements. Analytical techniques including chromatography, UV/Vis & IR spectroscopy, mass spectrometry, will be introduced and discussed alongside historical forensic case studies. May not be used for degree credit with CHEM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4123 Biomolecular Chemistry and Function
Prerequisites: Minimum grade of “C” in CHEM 3153 and CHEM 3112.
Description: The class is designed to use examples from classic and current literature to expand the student’s knowledge of the chemical techniques required to understand the structure and function of macromolecules in solution. These topics include chemical forces that stabilize macromolecular and supramolecular structure, thermodynamics and statistical mechanics of macromolecular and polymer folding, diffusional processes, kinetics, and the relationship of these principles to practical application in experimental design and interpretation. May not be used for degree credit with CHEM 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4312 Inorganic Chemistry Laboratory
Prerequisites: Minimum grade of “C” or better in CHEM 3112.
Description: Course will provide students with practical knowledge and experimental techniques commonly used in inorganic and organometallic chemistry.
Credit hours: 2
Contact hours: Lab: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 4313 Medicinal Organic Chemistry
Prerequisites: Minimum grade of “C” in CHEM 3153 and CHEM 3112.
Description: This course looks at the development of new organic molecules for use in the pharmaceutical industry and investigates their pathway from the design stage to eventual introduction to the market. This course explores a range of important techniques necessary for the synthesis of complex organic architectures, an introduction to asymmetric synthesis, and polymer-supported synthesis of biomolecules including peptides and nucleic acids. This course also introduces various classes of drugs, mechanisms of action, drug metabolism and structure activity relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4320 Chemical and Spectrometric Identification of Organic Compounds
Prerequisites: A grade of "C" or higher in CHEM 3112 and CHEM 3153.
Description: Theory and practice in separating mixtures of organic compounds and some theory and practice in identifying organic compounds by spectroscopic methods. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4322 Advanced Organic Chemistry Laboratory
Prerequisites: Minimum grade of "C" in both CHEM 3153 and CHEM 3112.
Description: Training in the art of chemical synthesis, phenomena surrounding molecular interactions, separation strategies, and spectroscopic analysis of organic molecules. Same course as CHEM 4320.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4333 Inorganic Chemistry I
Prerequisites: CHEM 1515 with minimum grade of “C.”
Description: Bonding theory, molecular symmetry and its applications to structure, bonding and spectroscopy, structures of simple solids, inorganic acids and bases, oxidation and reduction, and industrial production of elements, coordination chemistry, crystal field theory, ligand field theory, introduction to organometallic chemistry. May not be used for degree credit with CHEM 5260.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4433 Computational Chemistry and Molecular Modeling
Prerequisites: Grade of "C" or better in either CHEM 3413 or CHEM 3433.
Description: This course introduces the concepts, tools, and possibilities for computational modeling of molecular systems. Primary topics of study include classical molecular mechanics simulations, quantum mechanical calculations, and molecular graphics & visualization. One key effort will be introduction into the usage of high performance computing systems. Such instruction on the use of the computational resources available at OSU will be provided in hands-on computer exercises that involve constructing, performing, and analyzing molecular simulations and calculations. May not be used for degree credit with CHEM 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4482 Chemical Research & Literature Review
Prerequisites: CHEM 3153 with a "C" or better and Junior or Senior standing
Description: Student will learn how to conduct a comprehensive literature review of a current topic in chemistry, critically evaluate the current state of knowledge in this field, and summarize the findings. This evaluation will be presented orally and in a detailed written report.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Chemistry

CHEM 4650 Selected Topics in Chemistry
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 4990 Undergraduate Research in Chemistry
Prerequisites: Instructor permission required.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem culminating in a written and oral report. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 4993 Senior Thesis in Chemistry
Prerequisites: Instructor permission required.
Description: Capstone undergraduate research project and laboratory skills development in a discipline of chemistry. Guided reading and research program under the direction of a faculty member culminating in a senior research thesis and oral report.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5000 Thesis
Description: Familiarizes the student with methods used in research in chemistry. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5001 Introduction to Chemistry Research
Prerequisites: Graduate standing.
Description: Introduction to chemical research topics of interest to the department. Special emphasis placed on ethics, plagiarism, codes of conduct, research notebooks, publishing, and presentations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5011 Graduate Seminar
Description: Preparation and presentation of seminars usually on subjects of current interest taken from the literature. Completion of 1 credit hour required for MS degree.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Chemistry

CHEM 5033 Forensic Chemistry
Prerequisites: CHEM 2113
Description: An introduction to the principles and practices of forensic chemistry, with a focus on the analytical techniques and chemical analyses important in criminal investigations. This lecture course will cover the critical statistical practices necessary for taking convincing quantitative measurements. Analytical techniques including chromatography, UV/Vis & IR spectroscopy, mass spectrometry, will be introduced and discussed alongside historical forensic case studies. May not be used for degree credit with CHEM 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5053 Foundations of Physical Chemistry
Prerequisites: CHEM 3433 and CHEM 3153, or equivalent.
Description: This course provides the foundations of physical chemistry required for all disciplines of chemistry to understand the underlying principles necessary to advance at the graduate level. This core treatment will address thermodynamics and equilibria, chemical kinetics, quantum mechanics, spectroscopy, and statistical thermodynamics. These topics will provide the conceptual learning critical for interdisciplinary applications of physical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5063 Foundations of Organic Chemistry
Prerequisites: BS/BA in chemistry, CHEM 3153, or equivalent.
Description: This course provides the basic principles of organic chemistry necessary to advance at the graduate level in all disciplines of chemistry. This treatment will address bonding and its consequences, stereochemistry and conformational analysis, functional groups and their interconversions, reaction mechanisms, reactive intermediates and catalysis, synthesis and retrosynthetic analysis, and modern characterization. These topics will provide the conceptual background for interdisciplinary applications of organic chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5073 Foundations of Analytical Chemistry
Prerequisites: CHEM 4023 and CHEM 4022, or equivalent.
Description: This course provides the basic principles of analytical chemistry necessary to advance at the graduate level in all disciplines of chemistry. Subject matter includes the underlying principles of chemical analyses with emphasis on chemical and biological reactions (equilibrium, reaction rate, chemical labeling), instrumentation and instrumental design, sampling, sample preparation and method validation. These topics will provide the conceptual foundation critical for interdisciplinary applications of analytical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5103 Physical and Chemical Separations
Prerequisites: One year of physical chemistry.
Description: Principles of bulk and multi-stage separation methods: chromatography, liquid-liquid extraction, and zone melting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5113 Equilibrium and Kinetics in Analytical Chemistry
Prerequisites: One year of physical chemistry.
Description: Physical and chemical principles of equilibrium and kinetics as applied to analytical problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5123 Biomolecular Chemistry and Function
Prerequisites: CHEM 3153 and CHEM 3112
Description: The class is designed to use examples from classic and current literature to expand the student's knowledge of the chemical techniques required to understand the structure and function of macromolecules in solution. These topics include chemical forces that stabilize macromolecular and supramolecular structure, thermodynamics and statistical mechanics of macromolecular and polymer folding, diffusional processes, kinetics, and the relationship of these principles to practical application in experimental design and interpretation. May not be used for degree credit with CHEM 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5213 Innovations in Chemistry and STEM Education
Description: This course will train students on evidence-based instructional classroom practices relevant for improving student persistence and performance in chemistry and other STEM courses and conducting discipline-based education research in STEM.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5220 Topics For Teachers
Prerequisites: Teaching experience.
Description: Designed to help elementary and secondary science teachers improve their subject matter competence in chemistry. Content varies depending on the needs of specific groups of teachers. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5223 Polymer Chemistry
Prerequisites: CHEM 3153 and CHEM 3433 or equivalent.
Description: Preparation and polymerization of organic monomers; properties and uses of resulting high polymers; theories of polymerization; inorganic and natural organic polymers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5263 Foundations of Inorganic Chemistry
Prerequisites: CHEM 1515 with minimum grade of "C."
Description: Bonding theory, molecular symmetry and its applications to structure, bonding and spectroscopy, structures of simple solids, inorganic acids and bases, oxidation and reduction, and industrial production of elements, coordination chemistry, crystal field theory, ligand field theory, introduction to organometallic chemistry. May not be used for degree credit with CHEM 4333. Previously offered as CHEM 5260.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5283 Solid State Chemistry
Prerequisites: CHEM 5263.
Description: Structure, bonding, and properties of crystalline and amorphous inorganic solids. Emphasis on the characterization of inorganic solids and phase transitions in inorganic solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5323 Reactions of Organic Compounds
Prerequisites: CHEM 3153.
Description: Products and mechanisms of reactions of importance in organic synthesis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5363 Bioinorganic Chemistry
Prerequisites: CHEM 1515
Description: Discusses the structural and functional roles of main group and transition metals within biological systems. Topics may include: the transport, distribution and properties of metals in biological systems, the coordination chemistry of biologically active metals, physical methods for determining metalloprotein structure and reactivity, chemical processes including redox processes and long-range electron transfer reactions and metallocofactors and metal clusters. May not be used for degree credit with CHEM 3363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5373 Spectrometric Identification of Organic Compounds
Prerequisites: CHEM 4320.
Description: Lectures on ultraviolet, circular dichroism, infrared, nuclear magnetic resonance (NMR) and mass spectrometry (MS). More advanced techniques in NMR and MS stressed. Hands-on training and use of modern spectroscopic instrumentation in laboratory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5433 Computational Chemistry and Molecular Modeling
Prerequisites: CHEM 3433 or equivalent.
Description: This course introduces the concepts, tools, and possibilities for computational modeling of molecular systems. Primary topics of study include classical molecular mechanics simulations, quantum mechanical calculations, and molecular graphics & visualization. One key effort will be introduction into the usage of high performance computing systems. Such instruction on the use of the computational resources available at OSU will be provided in hands-on computer exercises that involve constructing, performing, and analyzing molecular simulations and calculations. May not be used for degree credit with CHEM 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5443 Mechanism and Structure in Organic Chemistry
Prerequisites: CHEM 3153 and CHEM 3553.
Description: Relationship of properties of organic compounds to their structure; mechanisms of organic reactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5563 Chemical Thermodynamics I
Prerequisites: CHEM 3553.
Description: Statistical and classical thermodynamics applied to chemical systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5623 Quantum Chemistry I
Prerequisites: CHEM 3553.
Description: Fundamentals of quantum mechanics, including classical mechanics, wave representation of matter, the Schroedinger equation, and atomic structure.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5650 Selected Topics in Chemistry
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5963 Advanced Inorganic Chemistry
Prerequisites: CHEM 5263.
Description: Inorganic reaction mechanisms, catalysis, electronic spectra of complexes, luminescence of inorganic compounds, lanthanide and actinide chemistry, introduction to biological inorganic chemistry. Previously offered as CHEM 5960.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6000 Doctoral Dissertation Research
Prerequisites: MS degree in chemistry or consent of instructor.
Description: Independent investigation under the direction and supervision of a major professor. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6010 Research Seminar
Prerequisites: Consent of instructor.
Description: Participation in departmental seminars on current topics in chemistry. One credit hour each fall and spring required for MS and PhD candidates with the exception of the first semester. Offered for variable credit, 1-20 credit hours, maximum of 20 credit hours.
Credit hours: 1-20
Contact hours: Contact: 1-20 Other: 1-20
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6011 Advanced Seminar
Prerequisites: CHEM 5011 or MS degree.
Description: Preparation and oral presentation of critical reviews on chemical subjects. Usually related to the student's research area. Completion of one credit hour required for the PhD degree.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Chemistry

CHEM 6050 Special Topics in Analytical Chemistry
Description: Supervised study of topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6103 Electroanalytical Chemistry
Prerequisites: CHEM 4024.
Description: The theory, practice and instrumentation in various areas of modern electroanalytical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6113 Analytical Spectroscopy
Prerequisites: CHEM 4024.
Description: Survey of selected topics in analytical applications of spectroscopic techniques. Fundamental concepts as well as current trends in research, including instrumentation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6223 Physical Polymer Science
Prerequisites: CHEM 5223 or equivalent.
Description: A study of the physical properties of macromolecular systems including polymer solutions, gels, bulk polymers and rubbers. The characterization of polymers based on their thermal, spectroscopic, microstructure and molecular masses is also discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6303 Physical Organic Chemistry
Prerequisites: BS/BA in chemistry, CHEM 3153, or equivalent.
Description: This course is an examination of the methods used in organic chemistry to probe mechanisms and reactive intermediates. Topics will include isotope effects, kinetics, linear free energy relationships, an introduction of orbital symmetry, rearrangements, stereo electronic effects, the generation and chemistry of carbenium ions, carbanions, carbenes, radicals, excited states, and strained molecules.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6420 Special Topics in Organic Chemistry
Prerequisites: CHEM 3153.
Description: Deals with topics not covered in other courses. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6453 Chemical Kinetics
Prerequisites: CHEM 3553.
Description: The kinetics of chemical reactions and their theoretical interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6553 Molecular Spectroscopy
Prerequisites: CHEM 5623.
Description: Spectra and structure of molecules.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6650 Selected Topics in Chemistry
Prerequisites: Consent of instructor.
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3813 or PHYS 3213, or consent of instructor.
Description: Advanced optics, including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Ultra short laser pulses. Same course as ECEN 6803 & PHYS 6803. Offered for fixed credit, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6810 Photonics II: THz photonics and THz time-domain spectroscopy
Prerequisites: CHEM 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultra short laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as ECEN 6810 & PHYS 6810. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6811 Photonics II: Thz Photonics and THz - TDS
Prerequisites: CHEM 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultrashort laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as ECEN 6811 and PHYS 6811.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6820 Photonics II: Spectroscopy II
Prerequisites: CHEM 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as ECEN 6820 & PHYS 6820. Offered for fixed credit,1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6830 Photonics II: Spectroscopy III
Prerequisites: CHEM 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques, including subnanosecond detectors, picosecond streak cameras, and ultra fast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as ECEN 6830 & PHYS 6830. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6840 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and noncontact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as ECEN 6840 & PHYS 6840. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6850 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning tunneling microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as ECEN 6850 & PHYS 6850. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding/compression. Same course as ECEN 6860 & PHYS 6860. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6870 Photonics IV: Synthesis and Devices I
Prerequisites: CHEM 6803 and CHEM 6840.
Description: Preparation of functional nanostructures and related optical and electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as ECEN 6870 & PHYS 6870. Offered for variable credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: CHEM 6803.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall Effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence and electro-optics sampling. Same course as ECEN 6880 & PHYS 6880. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: CHEM 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 clean rooms. Clean room operation, including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V, Hall and optical spectral measurement systems. Same course as ECEN 6890 & PHYS 6890. Offered for variable credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

Chinese (CHIN)

CHIN 1713 Elementary Chinese I (F)
Description: Basic introduction to spoken Mandarin Chinese and Chinese characters. Training in pronunciation, conversation, grammar and reading. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 1813 Elementary Chinese II (F)
Prerequisites: CHIN 1713 or equivalent proficiency.
Description: Continuation of CHIN 1713. Mastery of the basic grammatical patterns and conversational principles, and increasing repertory of Chinese characters. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 2713 Intermediate Chinese I (F)
Prerequisites: CHIN 1813 or equivalent proficiency.
Description: A continuation of CHIN 1813. Emphasis on fluency in spoken Mandarin Chinese, structures of greater complexity, a greater repertory of characters and vocabulary items, and reading ability. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 2813 Intermediate Chinese II
Prerequisites: CHIN 2713 or equivalent proficiency.
Description: Continuation of CHIN 2713. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 2225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 3343 Business Chinese
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: This course is designed to help students build upon their fundamental Chinese language communication skills by using professional and formal business tools such as letters, reports, news, and oral presentations in structured business environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 4713 Advanced Readings in Chinese
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: Development of student competence in reading a wide variety of materials by contemporary Chinese writers. Previously offered as CHIN 3133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 4813 Advanced Chinese Conversation
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: Development of general oral and aural proficiency. Previously offered as CHIN 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Civil Engineering (CIVE)

CIVE 2041 Civil and Environmental Engineering Seminar
Prerequisites: Sophomore standing or department permission required.
Description: An introduction to the importance of communication, professional ethics, knowledge of contemporary issues, and the role these play in developing a broad education. Emphasis will be placed on understanding the impact of engineering solutions in a global and societal context. The various sub-disciplines within the fields of Civil and Environmental Engineering will also be presented.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 2081 Environmental Chemistry for Engineers
Prerequisites: CHEM 1414 or CHEM 1314 with minimum grade of "C."
Description: This course applies the material covered in a general chemistry course for engineers to the skills needed for environmental engineering. In achieving these objectives, this course also supports Outcome 1 of the BSCE degree program accreditation requirements. (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3413 Structural Analysis
Prerequisites: Minimum grade of "C" in ENSC 2143.
Description: Analysis of internal forces and deflections of structures subjected to static loading. Beams, trusses, and framed structures analyzed by appropriate classical methods. Classical methods and modern computer procedures for the analysis of statically indeterminate structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3513 Structural Steel Design
Prerequisites: CIVE 3413 with minimum grade of C.
Description: Introduction to the design of structural steel members and connections in accordance with AISC specifications. May not be used for degree credit with ARCH 3323. May not be used for degree credit with CIVE 5473 and ARCH 3323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3523 Reinforced Concrete Design
Prerequisites: CIVE 3413 with minimum grade of C.
Description: Introduction to the design of reinforced concrete elements in accordance with the strength design requirements of the ACI Building code. May not be used for degree credit with ARCH 4123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3614 Engineering Surveying
Prerequisites: Minimum grade of "C" required in MATH 2123 or MATH 2144.
Description: Principles and techniques of vertical and horizontal measurements related to engineering and construction projects. Linear and angular measurements, differential leveling, traverses, topographic surveys, construction surveying, horizontal and vertical curves, earthwork quantities and design of route systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3623 Engineering Materials Laboratory
Prerequisites: ENSC 2143 with minimum grade of "C."
Description: Introduction on material properties and related design criteria for common construction materials: structural steel, wood and timber, aggregates, portland cement and concrete, asphalt binder and concrete. Discussion on material specific topics on fabrication methods; mechanical and non-mechanical properties; use and applications; standards, testing and quality control measures; selection and design criteria. Laboratory exercises supplement lecture theory and provide "hands-on" experience in performing standard tests.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3633 Transportation Engineering
Prerequisites: CIVE 3614 with minimum grade of "C", and minimum grade of "C" in STAT 4073 or STAT 4033 or concurrent enrollment.
Description: Planning, design and operations of transportation facilities. Vehicle characteristics and human factors in design. Traffic stream variables and their measurement techniques. Basic traffic flow models. Highway and street intersection capacity and level of service. Traffic control concepts. Transportation systems management. Application of statistical analysis and operations research to analyze transportation problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3714 Introduction to Geotechnical Engineering
Prerequisites: Minimum grade of "C" in ENSC 2143, or department permission required.
Description: Physical and mechanical properties of soils, including grain size analysis, plasticity, permeability, consolidation, and shear strength. Use of physical and mechanical properties to calculate stresses in a soil mass, lateral earth pressures and bearing capacity. Laboratory tests conducted to determine the physical and mechanical soil properties needed for application in geotechnical design. Course previously offered as CIVE 3713.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3813 Environmental Engineering Science
Prerequisites: (CHEM 1414 or CHEM 1314 plus CIVE 2081 OR CHEM 1515) and ENSC 3233 with minimum grade of "C".
Description: Fundamentals of environmental chemistry, biogeochemical cycles, materials and energy balances, water quality, solid waste, air pollution, global climate change, sustainability, and risk assessment. Techniques for migration, water and wastewater treatment, solid and hazardous waste management, and air pollution abatement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3833 Applied Hydraulics
Prerequisites: Minimum grade of "C" in ENSC 3233, and (CHEM 1414 or CHEM 1515).
Description: Basic hydraulic principles and their application in civil engineering problems. Analyses of water distribution networks, open channels, storm-water management and wastewater collection systems, water pumps, hydraulic models, hydraulic measurements, treatment plant hydraulics and hydraulic structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3843 Hydrology I
Prerequisites: Minimum grade of "C" in ENSC 3233 and (CHEM 1414 or CHEM 1515), and minimum grade of "C" in STAT 4033 or STAT 4073.
Description: Basic principles of surface groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events, application of hydrologic models. May not be used for degree credit with BAE 4314.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3853 Environmental Engineering Laboratory
Prerequisites: CIVE 3813 with minimum grade of "C".
Description: Performance of experiments with benchscale environmental engineering unit operations, review of chemical principles and analyses important to the evaluation of these and other environmental engineering applications. Emphasis on the development of experimental results that can be used in the design of full-scale units. May not be used for degree credit with CIVE 5813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4010 Civil Engineering Research
Prerequisites: Senior standing or consent of instructor.
Description: Research and investigation of civil engineering problems. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 4013 Aquatic Chemistry
Prerequisites: Senior standing and minimum grade of "C" in CHEM 1414 or CHEM 1515, and minimum grade of "C" in CIVE 3813.
Description: Application of chemical principles to environmental problems. Chemical kinetics, chemical equilibrium, acid-base chemistry, development of pc-pH diagrams, and coordination chemistry. Precipitation and dissolution reactions and oxidation-reduction reactions. Course is a senior elective. May not be used for degree credit with CIVE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4033 GIS Applications for Water Resources
Prerequisites: Senior standing.
Description: Application of theoretical and practical components of geographic information system for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems. Course is a senior elective. May not be used for degree credit with CIVE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4041 Engineering Practice
Prerequisites: Senior standing.
Description: Topics relevant to the professional practice of civil and environmental engineering will be introduced, to include management principles, project management, and the laws that impact the practice of engineering, such as OSHA and ADA. Emphasis will be placed on written communication skills to include resumes, letters of introduction, and job interviews. The advantages of professional registration and technical/ professional society membership will be presented as well as discussions of professional ethics, income taxes and investments. Course previously offered as CIVE 4042.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4043 Senior Design
Prerequisites: Minimum grades of “C” in each: CIVE 3623 and CIVE 3633 and CIVE 3714 and CIVE 3833; and within last two semesters of program completion. Minimum grade of "C" in CIVE 3513 or CIVE 3523.
Description: Major comprehensive design experience using the team approach. Industry practitioners provide design projects and analyze and critique results. Extends the undergraduate experience and provides the student with opportunities to analyze and design complex structures. Capstone course. May not be used for degree credit with CIVE 4143.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4050 Special Topics in Civil & Environmental Engineering
Prerequisites: Senior standing and within last 2 semesters of program completion.
Description: New courses offered in CIVE that have yet to be assigned a permanent number. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 4053 Transportation Geotechnics
Prerequisites: CIVE 3714 minimum grade of "C".
Description: This course focuses on the application of geotechnical engineering concepts to the analysis, design, and construction of transportation infrastructure. Topics covered include: soil classification systems, soil variability; subgrade evaluation procedures, repeated loading behavior of soils; soil compaction and field control; and subgrade stability for transportation facility engineering. May not be used for degree credit with CIVE 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4063 Introduction to Railroad Engineering
Prerequisites: Senior standing and CIVE 3633 wIth minimum grade of “C”.
Description: This course provides civil engineering students a technical transportation course in Railroad Engineering. It covers a wide spectrum of railway engineering, including the basic principles, railroad design, construction, operation, evaluation and maintenance of rail infrastructure and networks. The students are expected to develop small group skills through team homework assignments and class interaction. May not be used for degree credit with CIVE 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4083 Applied Statistics for Civil Engineers
Prerequisites: Senior standing, and CIVE 3633 with minimum grade of "C," and STAT 4033 or STAT 4073 with minimum grade of "C."
Description: This course covers subjects including statistical fundamentals; continuous, count, discrete dependent variable models, random parameter models, and Bayesian modeling that are widely used in civil, particularly transportation engineering. Course is a senior elective. May not be used for degree credit with CIVE 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4093 Transportation Safety and Analysis
Prerequisites: Senior standing and CIVE 3633 with minimum grade of "C".
Description: This course introduces fundamental concepts for performing traffic safety analyses, including safety management systems, different safety countermeasures, development of statistical models with countermeasures and their effectiveness, economic analyses, and crash investigation. Students should be prepared to apply these important safety concepts in professional practice. May not be used for degree credit with CIVE 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4103 Construction Simulation
Prerequisites: Senior standing and CIVE 4273 with minimum grade of "C."
Description: This course introduces students to effective ways of modeling construction processes and technologies. It provides an investigation of quantitative methods used for the design and analysis of construction operations to maximize productivity and minimize resource idleness. It includes discussions on queueing theory, line-of-balance techniques, linear programming and simulation. Comprehensive group projects that involve modeling and analyzing actual construction operations will be integral parts of this course. Course is a senior elective. May not be used for degree credit with CIVE 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4113 Construction Business Management
Prerequisites: Senior standing.
Description: Fundamental theories and applied methods of financial management of construction companies. The spectrum of the present and future practice of business management at the construction company level. Basic construction business operations in the context of construction accounting, financial management, cash flow analysis, financial planning, and risk analysis. May not be used for degree credit with CIVE 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4123 The Legal & Regulatory Environment of Civil Engineering
Prerequisites: Professional School.
Description: The U.S. and Oklahoma court systems. Tort law and labor law having an impact on engineering and construction. Union organization and activities. Government contracting and the laws governing it. Discussions of the Occupation Safety and Health Act and Americans with Disabilities Act. In-Depth look at environmental policy, laws, and regulations affecting engineering, including NEPA, CWA, SDWA, RCRA, CERCLA and CAA Water law. May not be used for degree credit with CIVE 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4133 Construction Contracts and Specifications
Prerequisites: Senior standing.
Description: The nature of contracts. Contract documents. Master format. Principles of specification writing. Contract types. Bonds and insurance. Bidding. Subcontracting. Disputes and disputes resolution. Course is a senior elective. May not be used for degree credit with CIVE 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4143 Environmental Engineering Design
Prerequisites: Minimum grade of "C" in each; CIVE 3714 and CIVE 3833 and CIVE 3853 and CIVE 4833, and within last semester of program completion.
Description: Actors involved in the design of engineered environmental systems. Solving “real world” environmental engineering problems. Design experience using decision-making techniques, integrating and expanding upon current knowledge, and defending decisions made. Economic, environmental, social, and regulatory aspects of environmental engineering design. Capstone course. May not be used for degree credit with CIVE 4043.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4153 Contract Administration
Prerequisites: Senior standing.
Description: Methods and techniques of tracking and control of construction projects. Evaluation of current research findings to contract implementation. Course is a senior elective. May not be used for degree credit with CIVE 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4163 Construction Equipment Management
Prerequisites: Senior standing.
Description: Analysis of construction equipment. Performance under various operating conditions. Application of engineering fundamentals to construction methods. Selection and costs of equipment, prediction of equipment production rates, and unit costs of work in place. Course is a senior elective. May not be used for degree credit with CIVE 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4183 Construction Estimating
Prerequisites: Senior standing, and concurrent prerequisite CIVE 4273 with minimum grade of "C."
Description: The construction industry, its makeup, operation, estimating, and bidding procedures. Theory and practice of estimating materials, labor, equipment, and overhead costs for various types of construction. Emphasis on preliminary cost estimates during the conceptual design phase of a construction project. May not be used for degree credit with CIVE 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4193 BIM for Construction
Prerequisites: Senior standing, and concurrent prerequisite CIVE 4273 with minimum grade of "C."
Description: The course focuses on advanced information systems used to control and predict project performance (cost and schedule) in construction. Building information Modeling is examined as a systems approach of integrating design and construction for the benefit of developing construction work packages, 4D simulations, clash detection, and the process of implementing BIM on an enterprise to project level. May not be used for degree credit with CIVE 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4243 Use and Design of Geosynthetics
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Description of types of geosynthetics available for engineering uses. Pertinent engineering properties required to design for various functions, basic design methodology for geosynthetics for various functions, and construction and performance considerations. May not be used for degree credit with CIVE 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4273 Construction Engineering and Project Management
Prerequisites: Senior standing and ENGR 1412 with minimum grade of "C."
Description: Principles and practice of construction engineering and project management. Project planning, development of cost estimates and project schedules, construction methods and fundamental terminology used in the engineering and construction industry. May not be used for degree credit with CIVE 5073.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4283 Numerical Methods in Geotechnical Engineering
Prerequisites: CIVE Professional School and CIVE 3714 with minimum grade of C.
Description: The course covers a brief review of some fundamental principles of finite element method and its application to problems in geotechnical engineering. Students will use computer programs to perform analysis of geotechnical earth structures including flow through porous media, unsaturated and expansive soils. May not be used for degree credit with CIVE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4293 Design and Analysis of Earth Retaining Structures
Prerequisites: CIVE professional school and CIVE 3714 minimum grade of C.
Description: Lateral earth pressure theories. Use of earth retaining structures in civil engineering construction. Design and analysis of gravity, sheet pile, soil nail, and MSE walls by hand calculation and with a computer program. May not be used for degree credit with CIVE 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4303 Systems Analysis for Civil Engineers
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Synthesis of systems modeling and simulation techniques, mathematical optimization procedures, and evaluation tools of multi-attributed systems including utility theory and decision analysis. Mathematical optimization techniques in the areas of resource allocation, transportation and water resources systems planning, structural design, construction management, and environmental and ecological problems. Course is a senior elective. May not be used for degree credit with CIVE 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4313 Highway Traffic Operations
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Level of service, capacity and service volume concepts. Operational characteristics of uninterrupted-flow and interrupted-flow of traffic facilities. The 1985 HCM procedures for analyzing the capacity of freeways, multi-lane and two-lane rural highways, urban arterials, signalized and unsignalized street intersections, and transit and pedestrian facilities. Administrative and planning actions for congestion management. Design alternatives and improvement strategies for effective use of urban arterial street width. Course is a senior elective. May not be used for degree credit with CIVE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4323 Civil Infrastructure Systems
Prerequisites: Senior standing and CIVE 3633 with minimum grade of “C”.
Description: The course presents a unified approach to the management of civil infrastructure systems. Topics of discussion include various aspects of asset management analytical methods, data collection technologies, life cycle cost, prioritization and optimization, climate change and sustainability. Types of infrastructure considered in the course include pavements (roads and airports), bridges, drainage and sewer systems, water supply systems, and power supply facilities. May not be used for degree credit with CIVE 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4343 Urban Transportation Planning
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Determinants of demand for transportation and models for demand forecasting. Performance characteristics of transportation systems and models for performance. Quantitative analysis of multimodal transportation networks including prediction of flow patterns and service quality. Evaluation of social, environmental, and political impacts of transportation decisions. Application of systems analysis techniques to the generation, evaluation, and selection of alternative transportation systems. Course is a senior elective. May not be used for degree credit with CIVE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4363 Design and Planning of Airports
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Nature of civil aviation. Aircraft characteristics and performance related to airport planning and design. Air traffic control and navigation systems. Basics of airport planning and airport demand forecasting. Analysis of airport capacity and delays. Runway length requirements. Configuration and geometric design of runways, taxiways, holding aprons, and landing areas. Airport lighting, marking, and signing. Drainage and noise control. Course is a senior elective. May not be used for degree credit with CIVE 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4373 Design of Traffic Control Systems
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Traffic control systems design, available technological options, and range of agency needs. Design of vehicle detectors, controllers, communications links, signal display hardware, and wiring. Development of timing plans using computer simulation models. Freeway surveillance and control: ramp metering, incident detection, and motorist information systems. Preparation of contractual documents and construction supervision. Course is a senior elective. May not be used for degree credit with CIVE 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4383 Geometric Design of Highways
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Geometric, functional, and aesthetic aspects of roadway design. Alignment, sight distance, at-grade intersections, interchanges, and freeway systems. Design tools and techniques. Course is a senior elective. May not be used for degree credit with CIVE 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4403 Advanced Strength of Materials
Prerequisites: Senior standing and CIVE 3413 with minimum grade of "C".
Description: General states of stress and strain, theories of failure, energy principles, beam bending, shear center, torsion of prismatic shafts, beams on elastic foundations, plates and shells, elastic stability. May not be used for degree credit with CIVE 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4413 Classical and Matrix Methods of Structural Analysis
Prerequisites: Senior standing and CIVE 3413 with minimum grade of "C".
Description: Advanced analysis of indeterminate frames, trusses and arches by classical, numerical, energy, and stiffness methods with emphasis on methods with emphasis on methods for hand computations and development of matrix analysis. May not be used for degree credit with CIVE 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4483 Concrete Testing and Monitoring Methods
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C," or CIVE 3523 with minimum grade of "C."
Description: Standard and advanced concrete testing and monitoring methods used for strength assessment of concrete, along with other various material properties and integrity issues in the laboratory and in the field. Principles, applications and limitations, procedures, equipment operation and result interpretation are discussed for each destructive and non-destructive evaluation technique reviewed: mechanical, chemical, electrical, ultrasonic and acoustics, thermography, radiography. This course includes a laboratory session to develop manipulation skills and review concepts presented in lectures. Course is a senior elective. May not be used for degree credit with CIVE 5483.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4493 Infrastructure Condition Assessment and Repair
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C," and CIVE 3523 with minimum grade of "C."
Description: The course provides guidelines on how to conduct a practical condition assessment of reinforced concrete infrastructure, which includes discussions on performing condition surveys, preliminary and detailed investigations; along with concrete properties, distress features and associated causes, diagnostics testing; reporting findings and recommendation. It also includes a discussion in basic repair methods and materials. Course is a senior elective. May not be used for degree credit with CIVE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4513 Advanced Reinforced Concrete Design
Prerequisites: Senior standing and CIVE 3523 with minimum grade of "C".
Description: Advanced topics in reinforced concrete design with emphasis on frames, slabs and earthquake resistant structures. May not be used for degree credit with CIVE 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4523 Advanced Steel Structure Design
Prerequisites: Senior standing and CIVE 3513 with minimum grade of "C".
Description: Advanced topics in steel design such as plastic design, plate girders, composite design, fatigue and fracture, stability and bracing design. May not be used for degree credit with CIVE 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4533 Prestressed Concrete
Prerequisites: Senior standing and CIVE 3523 with minimum grade of "C".
Description: Design of simple and continuous prestressed concrete beams. Behavior under overload. Calculation of prestress losses and deflections. May not be used for degree credit with CIVE 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4563 Structural Dynamics
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3413 and ENSC 2123.
Description: Analysis of linear, elastic damped and undamped systems with single and multiple degrees of freedom undergoing free forced vibration. Lumped and distributed mass systems. Computational techniques to numerically integrate the equations of motion. May not be used for degree credit with CIVE 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4573 Timber Design
Prerequisites: Senior standing and CIVE 3513 or CIVE 3523 with minimum grade of "C."
Description: Design of structural timber members, assemblies, and connections in accordance with ANSA/AF&PA, NDS specifications. Design, build, and test timber structure. Course is a senior elective. May not be used for degree credit with CIVE 5573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4583 Advanced Construction Materials
Prerequisites: CIVE Professional School and CIVE 3623 with minimum grade of "C."
Description: Undergraduate elective course addresses advanced topics on fundamental material properties and related design criteria for products commonly used in civil construction: timber and engineered wood products, metals and alloys, polymers and fiber reinforced composites; and glass. Lectures will include material specific topics on: physical, chemical and mechanical properties; fabrication methods; use and applications; standards, testing and quality control measures; selection and design criteria. May not be used for degree credit for CIVE 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4653 Asphalt Materials and Mix Design
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C".
Description: Principles of asphalt concrete mix design including material characteristics and performance. Evaluation of Superpave mix design methods. Asphalt cements, rubberized asphalt polymer asphalts, emulsions, cutbacks, and aggregates. Laboratory sessions focused on the engineering properties of the materials discussed. May not be used for degree credit with CIVE 5653.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4673 Concrete Materials and Mix Design
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C."
Description: Principles of concrete mix design, including material characteristics, strength and durability requirements, environmental effects and forensic analysis. ACI and PCA mix design procedures. Laboratory on theoretical and practical aspects of concrete technology. Course is a senior elective. May not be used for degree credit with CIVE 5673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4693 Pavement Design and Analysis
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3633 and CIVE 3623.
Description: Principles of pavement design, including stress analyses, load and environmental effects, and material characteristics. AASHTO, PCA and AI methods of pavement design. Computer methods practical aspects of life cycle cost analyses and construction methods. May not be used for degree credit with CIVE 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4711 Basic Soils Testing Laboratory
Prerequisites: Non-CIVE majors only, ENSC 2113 with minimum grade of "C".
Description: Laboratory measurements of the physical and mechanical properties of soils; grain size distribution, plasticity, permeability, compaction, compressibility, and shear strength.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Civil & Environ. Eng

CIVE 4723 Foundation Engineering
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Types of structural foundations including footings, mats, rafts, piles and drilled shafts. Site characteristics, exploration programs, field data, test results, construction materials and methods as basis for selection of type of foundation and design. Geotechnical design procedures and considerations. Course is a senior elective. May not be used for degree credit with CIVE 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4733 Soil Mechanics
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Application of soil mechanics principles and concepts in geotechnical areas of permeability and seepage, settlement analysis, bearing capacity, lateral earth pressures and retaining walls, slope stability, and metastable soils. Course is a senior elective. May not be used for degree credit with CIVE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4743 Project Engineering and Management
Prerequisites: Senior standing and concurrent prerequisite CIVE 4273 with minimum grade of "C".
Description: Management of the design and construction of civil engineering projects. Topics include owner's study, formation of project teams, design coordination, construction, and project closeout. Course is a senior elective. May not be used for degree credit with CIVE 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4753 Engineering Soil Stabilization
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Theoretical and practical aspects of engineering soil stabilization as a method for improving and upgrading low quality and unstable soils for engineering purposes. Use of time, fly ash, portland cement, asphalt, and other physical and chemical admixtures. Application of deep foundation stabilization methods such as preloading, deep compaction, injection and reinforcement. Course is a senior elective. May not be used for degree credit with CIVE 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4773 Soil-Structure Interaction
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: The mechanical interaction effects between soils and structures using suitable engineering procedures such as finite differences and finite element methods. Civil engineering problems where interaction effects are most dominant including grade beams (beams on elastic foundation), axially- and laterally-loaded piles, cantilever, and anchored sheet pile walls. Course is a senior elective. May not be used for degree credit with CIVE 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4833 Unit Operations in Environmental Engineering
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3813.
Description: Fundamental principles of water and wastewater treatment, including basic theory and development of design parameters. Application of these to the design of unit operations and processes in various treatment plants. May not be used for degree credit with CIVE 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4853 Bioremediation
Prerequisites: Senior standing and minimum grade of "C" in MATH 2153, and (CIVE 4903 or MICR 4013).
Description: Science and technologies for the site selection and bioremediation of hazardous contamination in soil, sediment and groundwater systems. Includes geochemical reactions and analysis, pollutant fate and transport modeling, microbial degradation mechanisms, natural attenuation, and measurements of success. May not be used for degree credit with CIVE 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4863 Advanced Unit Operations in Environmental Engineering
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C."
Description: Theory and design of advanced physical-chemical water and wastewater treatment processes applied to municipal, industrial, and hazardous waste situations. Course is a senior elective. May not be used for degree credit with CIVE 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4873 Air Pollution Control Engineering
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C."
Description: Causes, effects, and control of atmospheric pollution. Course is a senior elective. May not be used for degree credit with CIVE 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4883 Introduction to Environmental Modeling
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3813 and CIVE 3833.
Description: Intended as an introductory course for senior undergraduate students to the fundamentals of environmental modeling. Develops material necessary to construct models capable of identifying contaminant distributions at future times and space for water and air pollution applications. Advanced topics such as stochastic modeling, ecological risk assessment, neural modeling and spatial statistical analysis among others will be presented according to the backgrounds and interests of the enrolled students. May not be used for degree credit with CIVE 5833 and BAE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4903 Microbiology for Engineers
Prerequisites: Senior standing.
Description: Microbiology relates to many aspects of engineering, primarily environmental engineering. The class will cover the roles of bacteria in water and wastewater treatment, the bioremediation of hazardous substances, the mechanisms of antibiotic resistance, the molecular tools for studying and tracking bacteria, and special topics with regards to bacteria in common engineered environments. Basic microbiology and biochemistry will be covered throughout the course providing necessary background. May not be used for degree credit with CIVE 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4913 Groundwater Hydrology
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3843.
Description: Theory of groundwater movement, storage, exploration and pumping tests. Design of groundwater recovery and recharge systems. May not be used for degree credit with CIVE 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4923 Environ Risk Assessment
Prerequisites: Professional School and minimum grade of “C” in CIVE 3813 and STAT 4033 or STAT 4073 with minimum grade of “C”.
Description: Environmental risk assessment and management. Applies elements of statistics, probability and environmental simulation to determine the public health and ecological risks from activities of humans. May not be used for degree credit with CIVE 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4933 Water Treatment
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C".
Description: Theory, design, and operation of water treatment plants. Sizing of various unit processes. Water treatment plant control procedures. May not be used for degree credit with CIVE 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4943 Risk and Failure Analysis of Dams
Prerequisites: CIVE Professional School.
Description: Analyzing, evaluating and managing risks to Dams and providing a rigorous, systematic, and thorough approach to sustain and support of safety aspects. Evaluating CUASI Data to support aspects of the environment near and around Dams. Using new technologies such as ArcInfo to provide solutions to problems. May not be used for degree credit with CIVE 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4953 Biological Waste
Prerequisites: Senior standing and CIVE 4833 with minimum grade of C.
Description: Fundamentals of microbial systems applied to waste treatment processes. Standard suspended-growth and fixed biofilm wastewater and sludge suspensions and treatment system design calculations. May not be used for degree credit with CIVE 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4963 Open Channel Flow
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3833.
Description: Open channel hydraulics, energy and momentum concepts, resistance, channel controls and transitions, flow routing and sediment transport. May not be used for degree credit with CIVE 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4973 Concrete Durability
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C."
Description: This course investigates the mechanisms, test methods, and evaluation procedures for the primary mechanisms for durability issues in concrete. Emphasis is placed on providing a practical and theoretical overview of the topics. Special topics may be covered with the interest of the students. Course is a senior elective. May not be used for degree credit with CIVE 5273.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4983 Residuals & Solid Waste Management
Prerequisites: Professional School and CIVE 4833 with minimum grade of "C".
Description: Theory, design and operation of systems for handling, treatment, and disposal of process sludge (water treatment, wastewater treatment, industrial) and solid wastes. Potential material reclamation options. May not be used for degree credit with CIVE 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5000 Master's Thesis
Description: A student studying for a master's degree will enroll in this course for a total of 6 credits if a thesis is to be written. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5010 Civil Engineering Seminar
Description: Review of literature of major fields of civil engineering. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5013 Aquatic Chemistry
Description: Application of chemical principles to environmental problems. Chemical kinetics, chemical equilibrium, acid-base chemistry, development of pc-pH diagrams, and coordination chemistry. Precipitation and dissolution reactions and oxidation-reduction reactions. CHEM 1515 or equivalent background required. May not be used for degree credit with CIVE 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5020 Civil Engineering Research
Prerequisites: Graduate standing and approval of major professor.
Description: Research and investigations other than thesis studies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5030 Engineering Practice
Prerequisites: Approval of adviser.
Description: Professional supervised civil engineering practice involving authentic projects for which the student assumes a degree of professional responsibility. Activities must be approved in advance by the student's adviser and may consist of engineering experience on-campus or off-campus, or both. Periodic reports, both oral and written, are required as specified by the adviser. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5033 GIS Applications for Water Resources
Prerequisites: Graduate standing or professional school.
Description: Application of theoretical and practical components of geographic information system for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5043 Risk and Failure Analysis of Dams
Prerequisites: Graduate standing or professional school.
Description: Analyzing, evaluating and managing risks to Dams and providing a rigorous, systematic, and thorough approach to sustain and support of safety aspects. Evaluating CUASI Data to support aspects of the environment near and around Dams. Using new technologies such as ArcInfo to provide solutions to problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5053 Transportation Geotechnics
Prerequisites: Graduate standing.
Description: This course focuses on the application of geotechnical engineering concepts to the analysis, design, and construction of transportation infrastructure. Topics covered include: soil classification systems, soil variability; subgrade evaluation procedures, repeated loading behavior of soils; soil compaction and field control; and subgrade stability for transportation facility engineering. May not be used for degree credit with CIVE 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5063 Introduction to Railroad Engineering
Prerequisites: Graduate standing.
Description: This course provides civil engineering students a technical transportation course in Railroad Engineering. It covers a wide spectrum of railway engineering, Including the basic principles, railroad design, construction, operation, evaluation and maintenance of rail infrastructure and networks. The students are expected to develop small group skills through team homework assignments and class interaction. May not be used for degree credit with CIVE 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5073 Construction Engineering and Project Management
Description: Principles and practice of construction engineering and project management. Project planning, development of cost estimates and project schedules, construction methods and fundamental terminology used in the engineering and construction industry. May not be used for degree credit with CIVE 4273.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5080 Engineering Problems
Prerequisites: Permission of instructor.
Description: Problems of particular interest to graduate students in the field of civil engineering. This course meets the criteria for a creative component. Not to be included on thesis plans. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5083 Applied Statistics for Civil Engineers
Description: This course covers subjects including statistical fundamentals; continuous, count, discrete dependent variable models, random parameter models, and Bayesian modeling that are widely used in civil, particularly transportation engineering. Course is a senior elective. May not be used for degree credit with CIVE 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5093 Transportation Safety and Analysis
Prerequisites: Graduate standing.
Description: This course introduces fundamental concepts for performing traffic safety analyses, including safety management systems, different safety countermeasures, development of statistical models with countermeasures and their effectiveness, economic analyses, and crash investigation. Students should be prepared to apply these important safety concepts in professional practice. May not be used for degree credit with CIVE 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5103 Construction Simulation
Description: This course introduces students to effective ways of modeling construction processes and technologies. It provides an investigation of quantitative methods used for the design and analysis of construction operations to maximize productivity and minimize resource idleness. It includes discussions on queueing theory, line-of-balance techniques, linear programming and simulation. Comprehensive group projects that involve modeling and analyzing actual construction operations will be integral parts of this course. May not be used for degree credit with CIVE 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5113 Construction Business Management
Description: Fundamental theories and applied methods of financial management of construction companies. The spectrum of the present and future practice of business management at the construction company level. Basic construction business operations in the context of construction accounting, financial management, cash flow analysis, financial planning, and risk analysis. May not be used for degree credit with CIVE 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5123 The Legal and Regulatory Environment of Engineering
Prerequisites: Graduate standing or admission to CIVE professional school required.
Description: The U.S. and Oklahoma court systems. Tort law and labor law having an impact on engineering and construction. Union organization and activities. Government contracting and the laws governing it. Discussions of the Occupation Safety and Health Act and Americans with Disabilities Act. In-Depth look at environmental policy, laws, and regulations affecting engineering, including NEPA, CWA, SDWA, RCRA, CERCLA and CAA Water law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5133 Construction Contracts and Specifications
Description: The nature of contracts. Contract documents. Master format. Principles of specification writing. Contract types. Bonds and insurance. Bidding. Subcontracting. Disputes and disputes resolution. May not be used for degree credit with CIVE 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng
Additional Fees: Civil Engineering Equip Use fee of $10 applies.

CIVE 5143 Project Engineering and Management
Description: Management of the design and construction of civil engineering projects. Topics include owner's study, formation of project teams, design coordination, construction, and project closeout. May not be used for degree credit with CIVE 4743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5153 Contract Administration
Description: Methods and techniques of tracking and control of construction projects. Evaluation of current research findings to contract implementation. May not be used for degree credit with CIVE 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5163 Construction Equipment Management
Description: Analysis of construction equipment. Performance under various operating conditions. Application of engineering fundamentals to construction methods. Selection and costs of equipment, prediction of equipment production rates, and unit costs of work in place. May not be used for degree credit with CIVE 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5183 Construction Estimating
Prerequisites: Graduate standing and CIVE major.
Description: The construction industry, its makeup, operation, estimating, and bidding procedures. Theory and practice of estimating, materials, labor, equipment, and overhead costs for various types of construction. Emphasis on preliminary cost estimates during the conceptual design phase of a construction project. May not be used for degree credit with CIVE 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5193 BIM for Constructions
Prerequisites: CIVE major and graduate standing.
Description: The course focuses on advanced information systems used to control and predict project performance (cost and schedule) in construction. Building information modeling is examined as a systems approach of integrating design and construction for the benefit of developing construction work packages, 4D simulations, clash detection, and the process of implementing BIM on an enterprise to project level. May not be used for degree credit with CIVE 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5203 Pavement Rehabilitation, Management and Safety
Prerequisites: Graduate standing or senior standing with instructor approval.
Description: Understand and perform pavement evaluations of function, structure, surface condition, and surface safety and learn various types of equipment for evaluating pavement function, structure, and surface condition and safety. Describe techniques for rehabilitation of flexible and rigid pavements, and overall objectives and major components of a pavement management system. Understand and explain the basic techniques of safety analysis based on pavement surface data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5243 Use and Design of Geosynthetics
Prerequisites: Graduate student.
Description: Description of types of geosynthetics available for engineering uses. Pertinent engineering properties required to design for various functions, basic design methodology for geosynthetics for various functions, and construction and performance considerations. May not be used for degree credit with CIVE 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5253 Sensors and their Applications for Pavement
Prerequisites: Graduate standing or senior standing with instructor approval.
Description: Sensor Principles of Falling Weight Deflectometer (FWD), Rolling Weight Deflectometer (RWD) and Traffic Speed Deflectometer (TSD); 2D and 3D laser imaging as used in pavement surface condition survey; Laser rangers and accelerometers for pavement longitudinal profile; Friction and texture measurement of pavement surface; New software and mobile tools for presenting sensor data with HTML5; 3D visualization and database management with pavement sensor data; Inertial navigation system and high-precision gyro for pavement data positioning; LIDAR and its usage for infrastructure management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5273 Concrete Durability
Prerequisites: CIVE 5673 Concrete Mixture Design and graduate standing or permission of instructor.
Description: This course investigates the mechanisms, test methods, and evaluation procedures for the primary mechanisms for durability issues in concrete. Emphasis is placed on providing a practical and theoretical overview of the topics. Special topics may be covered with the interest of the students.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5283 Numerical Methods in Geotechnical Engineering
Prerequisites: Graduate standing, or professional school and CIVE 3714 for undergraduates.
Description: The course covers a brief review of some fundamental principles of finite element method and its application to problems in geotechnical engineering. Students will use computer programs to perform analysis of geotechnical earth structures including flow through porous media, unsaturated and expansive soils.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5293 Design and Analysis of Earth Retaining Structures
Prerequisites: CIVE major and graduate standing.
Description: Lateral earth pressure theories. Use of earth retaining structures in civil engineering construction. Design and analysis of gravity, sheet pile, soil nail, and MSE walls by hand calculation and with a computer program. May not be used for degree credit with CIVE 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5303 Systems Analysis for Civil Engineers
Description: Synthesis of systems modeling and simulation techniques, mathematical optimization procedures, and evaluation tools of multi-attributed systems including utility theory and decision analysis. Mathematical optimization techniques in the areas of resource allocation, transportation and water resources systems planning, structural design, construction management, and environmental and ecological problems. May not be used for degree credit with CIVE 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5313 Highway Traffic Operations
Description: Level of service, capacity and service volume concepts. Operational characteristics of uninterrupted-flow and interrupted-flow traffic facilities. The 1985 HCM procedures for analyzing the capacity of freeways, multilane and two-lane rural highways, urban arterials, signalized and unsignalized street intersections, and transit and pedestrian facilities. Administrative and planning actions for congestion management. Design alternatives and improvement strategies for effective use of urban arterial street width. May not be used for degree credit with CIVE 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5323 Civil Infrastructure Systems
Prerequisites: Graduate student.
Description: The course presents a unified approach to the management of civil infrastructure systems. Topics of discussion include various aspects of asset management: analytical methods, data collection technologies, life cycle cost, prioritization and optimization, climate change and sustainability. Types of infrastructure considered in the course include pavements (roads and airports), bridges, drainage and sewer systems, water supply systems, and power supply facilities. May not be used for degree credit with CIVE 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5333 Reliability and Risk of Components and Systems
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5343 Urban Transportation Planning
Description: Determinants of demand for transportation and models for demand forecasting. Performance characteristics of transportation systems and models for performance. Quantitative analysis of multimodal transportation networks including prediction of flow patterns and service quality. Evaluation of social, environmental, and political impacts of transportation decisions. Application of systems analysis techniques to the generation, evaluation, and selection of alternative transportation systems. May not be used for degree credit with CIVE 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5363 Design and Planning of Airports
Description: Nature of civil aviation. Aircraft characteristics and performance related to airport planning and design. Air traffic control and navigation systems. Basics of airport planning and airport demand forecasting. Analysis of airport capacity and delays. Runway length requirements. Configuration and geometric design of runways, taxiways, holding aprons, and landing areas. Airport lighting, marking, and signing. Drainage and noise control. May not be used for degree credit with CIVE 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5373 Design of Traffic Control Systems
Description: Traffic control systems design, available technological options, and range of agency needs. Design of vehicle detectors, controllers, communications links, signal display hardware, and wiring. Development of timing plans using computer simulation models. Freeway surveillance and control: ramp metering, incident detection, and motorist information systems. Preparation of contractual documents and construction supervision. May not be used for degree credit with CIVE 4373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5383 Geometric Design of Highways
Description: Geometric, functional, and aesthetic aspects of roadway design. Alignment, sight distance, at-grade intersections, interchanges, and freeway systems. Design tools and techniques. May not be used for degree credit with CIVE 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5403 Advanced Strength of Materials
Description: General states of stress and strain, theories of failure, energy principles, beam bending, shear center, torsion of prismatic shafts, beams on elastic foundations, plates and shells, elastic stability. May not be used for degree credit with CIVE 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5413 Classical and Matrix Methods of Structural Analysis
Prerequisites: Graduate standing or admission to CIVE professional school, and CIVE 3413.
Description: Advanced analysis of indeterminate frames, trusses and arches by classical, numerical, energy, and stiffness methods with emphasis on methods for hand computations and development of matrix analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5423 Matrix Analysis of Structures
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413.
Description: Matrix analysis of two- and three-dimensional trusses and frames. Development of member stiffness matrices. Assemblage of structure matrices by direct stiffness method. Computer programs for structural analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5433 Energy Methods in Applied Mechanics
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413 and MATH 2233 or MAE 3323.
Description: Advanced structural mechanics from the standpoint of virtual work; energy principles and variational calculus applied to the analysis of structures, mechanisms, dynamics, and vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5453 Engineering Analysis
Description: Advanced, classical mathematical skills for engineers. Dimensional Analysis, General Tensor Analysis, Curvilinear Coordinates, Partial Differential Equations, Perturbation Theory, Integral Equations, Special Functions, Eigen Function Analysis, Integral Transform Methods, Variational Methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5473 Steel Plastic Design
Prerequisites: Graduate standing or CIVE 3413 Structural Analysis and instructor approval.
Description: This course is for incoming graduate students that are not familiar with LRFD AISC based steel design. Topics typically covered in the undergraduate course are covered with additional topics.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5483 Concrete Testing and Monitoring Method
Prerequisites: Graduate student.
Description: Standard and advanced concrete testing and monitoring methods used for strength assessment of concrete, along with other various material properties and integrity issues in the laboratory and in the field. Principles, applications and limitations, procedures, equipment operation and result interpretation are discussed for each destructive and non-destructive evaluation technique reviewed: mechanical, chemical, electrical, ultrasonic and acoustics, thermography, radiography. This course includes a laboratory session to develop manipulation skills and review concepts presented in lectures. May not be used for degree credit with CIVE 4483.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5493 Infrastructure Condition Assessment and Repair
Prerequisites: Graduate student.
Description: The course provides guidelines on how to conduct a practical condition assessment of reinforced concrete infrastructure, which includes discussions on performing condition surveys, preliminary and detailed investigations; along with concrete properties, distress features and associated causes, diagnostics testing; reporting findings and recommendation. It also includes a discussion in basic repair methods and materials. May not be used for degree credit with CIVE 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5503 Computer-Aided Structural Analysis and Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413, CIVE 3513, CIVE 3523 (or concurrent enrollment); or permission of instructor.
Description: Major comprehensive design experience. Promotion of a design office atmosphere in using a team approach. Industry practitioners provide design projects and critique results. Analysis and design of complex structures and preparation of contract documents and drawings. Emphasis on modern computer-based computation and presentation tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5513 Advanced Reinforced Concrete Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523.
Description: Advanced topics in reinforced concrete design with emphasis on frames, slabs, and earthquake-resistant structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5523 Advanced Steel Structure Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3513.
Description: Advanced topics in steel design such as plastic design, plate girders, composite design, fatigue and fracture, stability, and bracing design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5533 Prestressed Concrete
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523.
Description: Design of simple and continuous prestressed concrete beams. Behavior under overload. Calculation of prestress losses and deflections. May not be used for degree credit with CIVE 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5543 Bridge Design
Prerequisites: CIVE 3513 AND CIVE 3523.
Description: Structural design of steel and concrete highway bridges, including bridge types, parts of a bridge, loads and load distribution, analysis, design, and bridge rating. Emphasis on topics of special interest to students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5563 Structural Dynamics
Prerequisites: Graduate standing or admission to CIVE professional school required and ENSC 2123 and CIVE 3413.
Description: Analysis of linear, elastic damped and undamped systems with single and multiple degrees of freedom undergoing free and forced vibration. Lumped and distributed mass systems. Computational techniques to numerically integrate the equations of motion. Course previously offered as CIVE 6433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5573 Timber Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523 or CIVE 3513.
Description: Design of structural timber members, assemblies, and connections in accordance with ANSA/AF&PA, NDS specifications. Design, build, and test timber structure.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5583 Advanced Construction Materials
Prerequisites: Graduate student.
Description: The course addresses advanced topics on fundamental material properties and related design criteria for products commonly used in civil construction: timber and engineered wood products, metals and alloys, polymers and fiber reinforced composites; and glass. The lectures will include material specific topics on: physical, chemical and mechanical properties; fabrication methods; use and applications; standards, testing and quality control measures; selection and design criteria. May not be used for degree credit with CIVE 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5653 Asphalt Materials and Mix Design
Prerequisites: CIVE 3623 or consent of instructor.
Description: Principles of asphalt concrete mix design including material characteristics and performance. Evaluation of Hveem and Marshall mix design methods. Asphalt cements, rubberized asphalt polymer asphalts, emulsions, cutbacks, and aggregates. Laboratory sessions focused on the engineering properties of the materials discussed.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng
Additional Fees: Civil Engineering Equip Use fee of $15 applies.

CIVE 5673 Concrete Materials and Mix Design
Prerequisites: Senior or graduate standing.
Description: Principles of concrete mix design, including material characteristics, strength and durability requirements, environmental effects and forensic analysis. ACI and PCA mix design procedures. Laboratory on theoretical and practical aspects of concrete technology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5693 Pavement Design and Analysis
Prerequisites: CIVE 3633 or consent of instructor.
Description: Principles of pavement design, including stress analyses, load and environmental effects, and material characteristics. AASHTO, PCA and AI methods of pavement design. Computer methods. Practical aspects of life cycle cost analyses and construction methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5713 Soil Mechanics
Prerequisites: CIVE 3713 and CIVE 4711.
Description: Application of soil mechanics principles and concepts in geotechnical areas of permeability and seepage, settlement analysis, bearing capacity, lateral earth pressures and retaining walls, slope stability, and metastable soils. May not be used for degree credit with CIVE 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5723 Foundation Engineering
Description: Types of structural foundations including footings, mats, rafts, piles and drilled shafts. Site characteristics, exploration programs, field data, test results and construction materials and methods as basis for selection of type of foundation and design. Geotechnical design procedures and considerations. May not be used for degree credit with CIVE 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5733 Rock Mechanics in Engineering Design and Construction
Prerequisites: Undergraduate courses in soils and geology.
Description: Stresses, strength variations, and deformational behavior of rock. Engineering classification of rock. Methods of field and laboratory measurement of the engineering properties of rock. Rock mechanics consideration in the design and construction of engineering works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5743 Soil-Struc Interaction
Description: The mechanical interaction effects between soils and structures using suitable engineering procedures such as finite differences and finite element methods. Civil engineering problems where interaction effects are most dominant including grade beams (beams on elastic foundation), axially- and laterally-loaded piles, cantilever, and anchored sheet pile walls. May not be used for degree credit with CIVE 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5753 Engineering Soil Stabilization
Description: Theoretical and practical aspects of engineering soil stabilization as a method for improving and upgrading low quality and unstable soils for engineering purposes. Use of lime, fly ash, portland cement, asphalt, and other physical and chemical admixtures. Application of deep foundation stabilization methods such as preloading, deep compaction, injection and reinforcement. May not be used for degree credit with CIVE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5800 Environmental Engineering Seminar
Prerequisites: Graduate standing and permission of instructor.
Description: Course is a seminar series for graduate students in the Environmental Engineering program. Seminars will be given by the students in the course and by guest speakers. Through presentations using logical and evaluations, students will learn a breadth of topics in Environmental Engineering and related fields, and will learn and practice presentation skills.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5813 Environmental Laboratory Analysis
Prerequisites: Graduate standing or permission of instructor.
Description: Analytical procedures for water and waste water contaminants. Emphasis on the chemical theory of procedures, analytical work and an understanding of the significance or need for such laboratory data for surface and groundwater management and water and wastewater treatment processes and design. May not be used for degree credit with CIVE 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5823 Environmental Risk Assessment and Management
Prerequisites: Graduate standing or permission of instructor.
Description: Environmental risk assessment and management. Applies elements of statistics, probability and environmental simulation to determine the public health and ecological risks from activities of humans. May not be used for degree credit with CIVE 4923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5833 Introduction to Environmental Modeling
Description: Intended as an introductory course for graduate and senior undergraduate students to the fundamentals of environmental modeling. Develops material necessary to construct models capable of identifying contaminant distributions at future times and space for water and air pollution applications. Advanced topics such as stochastic modeling, ecological risk assessment, neural modeling and spatial statistical analysis among others will be presented according to the backgrounds and interests of the enrolled students. In part, the course is designed as the "Physical Science" component for MS students in the Environmental Sciences program. May not be used for degree credit with CIVE 4883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5843 Unit Operations in Environmental Engineering
Description: Fundamental principles of water and wastewater treatment, including basic theory and development of design parameters. Application of these to the design of unit operations and processes in various treatment plans. May not be used for degree credit with CIVE 4833. CIVE 5843 was used to denote Hydrology II prior to 2004.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5853 Bioremediation
Prerequisites: Graduate standing.
Description: Science and technologies for the site selection and bioremediation of hazardous contamination in soil, sediment and groundwater systems. Includes geochemical reactions and analysis, pollutant fate and transport modeling, microbial degradation mechanisms, natural attenuation, and measurements of success. Course requires a familiarity with differential equations and basic microbiology. May not be used for degree credit with CIVE 4853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5863 Advanced Unit Operations in Environmental Engineering
Description: Theory and design of advanced physical-chemical water and wastewater treatment processes applied to municipal, industrial, and hazardous waste situations. May not be used for degree credit with CIVE 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5873 Air Pollution Control Engineering
Description: Causes, effects, and control of atmospheric pollution. Same course as CHE 5873. May not be used for degree credit with CIVE 4873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5883 Residuals and Solid Waste Management
Prerequisites: Graduate standing or admission to CIVE professional school required, or permission of instructor.
Description: Theory, design and operation of systems for handling, treatment, and disposal of process sludge (water treatment, wastewater treatment, industrial) and solid wastes. Potential material reclamation options. May not be used for degree credit with CIVE 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5903 Microbiology for Engineers
Description: Microbiology relates to many aspects of engineering, primarily environmental engineering. The class will cover the roles of bacteria in water and wastewater treatment, the bioremediation of hazardous substances, the mechanisms of antibiotic resistance, the molecular tools for studying and tracking bacteria, and special topics with regards to bacteria in common engineered environments. Basic microbiology and biochemistry will be covered throughout the course providing necessary background. May not be used for degree credit with CIVE 4903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5913 Groundwater Hydrology
Prerequisites: Graduate standing or admission to CIVE professional school required and 3843, or permission of instructor.
Description: Theory of groundwater movement, storage, exploration and pumping tests. Design of groundwater recovery and recharge systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5933 Water Treatment
Description: Theory, design, and operation of water treatment plants. Sizing of various unit processes. Water treatment plant control procedures. May not be used for degree credit with CIVE 4933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5953 Biological Waste Treatment
Description: Fundamentals of microbial systems applied to waste treatment processes. Standard suspended-growth and fixed biofilm wastewater and sludge suspensions and treatment system design calculations. May not be used for degree credit with CIVE 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5963 Open Channel Flow
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3833, or permission of instructor.
Description: Open channel hydraulics, energy and momentum concepts, resistance, channel controls and transitions, flow routing, and sediment transport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6000 PhD Research Dissertation
Description: Independent research under the direction of a member of the graduate faculty by students working beyond the level of Master of Science degree. Offered for variable credit, 1-16 credit hours, maximum of 30 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 6010 Seminar
Prerequisites: Consent of instructor and approval of the student's advisory committee.
Description: Analytical studies with suitable reports on problems in one or more of the subfields in civil engineering by students working beyond the level of Master of Science degree. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 6403 Theory of Elasticity
Prerequisites: Graduate standing or admission to CIVE professional school required, or permission of instructor.
Description: Stress, strain, and deformation analysis of two- and three-dimensional elastic continua. Propagation of stress waves through elastic continua.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6413 Plate and Shell Structures
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 5403, or permission of instructor.
Description: Bending of thin plate structures to include rectangular and circular plates. Analysis of orthotropic plates by classical and numerical methods. Introduction to shell bending theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6434 Finite Element Analysis
Prerequisites: Graduate standing and permission of instructor.
Description: Finite elements: formulation techniques, weighted residuals, variational techniques, shape functions and element types, isoparametric elements, convergence criteria, error analysis, and programming techniques. Applications to solid mechanics, structures, fluid mechanics, and heat transfer are discussed.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6553 Natural Hazards Engineering
Prerequisites: Graduate standing and CIVE 5563.
Description: Performance of structural systems exposed to extreme loadings from natural hazard events. The response, analysis, and design of structures exposed to earthquakes, wind, flood, and fire loadings are considered. Advanced analytical, computational, and experimental techniques. Current building code specifications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6843 Stochastic Methods in Hydrology
Prerequisites: Graduate standing and STAT 4073 or STAT 4033.
Description: Stochastic and statistical hydrologic analyses of surface water and ground water systems. Analyses of urban and rural drainage and detention systems. Same course as BAE 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6923 Industrial Wastes Engineering
Prerequisites: Graduate standing or permission of instructor.
Description: Theory and methods of waste minimization, waste product reduction or reuse; process changes and treatment of residuals to reduce volume and toxicity of industrial wastes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

College of Professional Studies (CPS)

CPS 3010 Special Topics in Professional Studies
Description: This course introduces students to current issues and topics related to professional studies — offerings are on a limited basis. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

CPS 3013 Inclusive Leadership
Description: Development of an inclusive workplace using organizational development principles with study of major trends, the case for inclusion and diversity and the importance of both empathy and psychological safety.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Independent Study, Combined lecture disc & IS, Lecture
Department/School: Professional Studies

CPS 3250 Credit for Prior Learning
Description: College-level learning can take place outside of the traditional college classroom. Through Prior Learning Assessment and portfolio review, students can earn credit toward their degree by documenting the knowledge they have gained during years of work and life-long learning.
Credit hours: 1-24
Contact hours: Contact: 1-24 Other: 1-24
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

CPS 3513 Experiential Learning & Civic Engagement
Description: Integrative and interdisciplinary focus on the various models, definitions and exploration in experiential learning, effective civic involvement, and the impact on the workplace.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Independent Study, Combined lecture disc & IS, Lecture
Department/School: Professional Studies

CPS 4013 Cases in Organizational Leadership
Description: Using simulation and case studies, an in-depth analysis of organizational leadership within the workplace will be discussed including possible interventions and solutions.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Independent Study, Combined lecture disc & IS, Lecture
Department/School: Professional Studies

CPS 4213 Data Driven Decision Making
Prerequisites: 3 hours of MATH or STAT with "A" designation.
Description: This course presents an exploration of the principles and practices of data-driven decision-making within various organizational contexts. Students engage in a study of data collection, analysis, interpretation, and application, enabling them to understand informed and strategic decisions based on quantitative insights. May not be used for degree credit with BADM 2233, MSIS 2233 and MSIS 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

CPS 4850 Special Topics in Research
Description: Special topics course with variable content related to research in professional studies. Topics include relevant issues/practices in professional studies. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours. Offered on a limited basis.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

CPS 4990 Internship in Professional Studies
Prerequisites: Permission of instructor.
Description: Directed internship experience or practicum in a professional work environment. This internship experience will provide experience beyond that available in the classroom. Offered for variable credit, 1-15 hours, maximum of 15 hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

Communication Sci & Disorders (CDIS)

CDIS 1013 Brain Works (N)
Description: This course will teach students how to tap into their brain power to be a successful student. Basic neural anatomy and physiology, techniques to assist in test taking, socialization, critical thinking, memory, stress relief, and daily problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Natural Science Reasoning

CDIS 2013 Facts and Fiction About Communication Disorders (D)
Description: Overview and examination of communication disorders as portrayed in media (movies, books, etc.), dispelling myths and misconceptions. Discussion and practice with ways to be a respectful, successful communicator with people of different backgrounds, life experiences, and communication challenges.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Diversity

CDIS 2033 Deaf Communication and Education (D)
Description: Issues in communication and education for children with hearing loss (communication options, schooling options, assistive technology, cochlear implants, language development, literacy, socializing) and introduction to Deaf culture and American Sign Language. Awareness of the breadth of challenges and options facing parents and educators of children with hearing loss. Previously offered as CDIS 4033, CDIS 4132, and SPTH 4132.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Diversity

CDIS 2223 Speech and Language Development
Description: Discussion of current theories and research on typical language development over the lifespan. Normal acquisition of language (e.g. phonology); speech and language milestones; biological, cognitive, and social bases; description of dialect variations, second language acquisition; atypical language development; and relationship between spoken and written language. Previously offered as CDIS 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 2313 Introduction to Communication Disorders
Description: Introduction of communication impairments across the lifespan (speech, language and hearing disorders). Including their neuromuscular bases; assessment and treatment; and professions related to assessment and treatment. Open to all university students. Previously offered as CDIS 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 2890 Honors Add-on
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Honors Credit

CDIS 3113 Communication Disorders in Children
Prerequisites: A grade of "C" or higher in CDIS 2313 and (CDIS 2223 or CDIS 3223).
Description: Assessment and treatment of childhood communication disorders including autism, cerebral palsy, articulation and phonological disorders (speech sounds and their normal acquisition, common phonological errors), language disorders, fluency disorders, nonverbal and minimally verbal children, children using AAC, voice disorders and communication disorders in school-age children. Same course as CDIS 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3123 Audiology Diagnosis
Prerequisites: CDIS 3203 with a grade of "C" or higher.
Description: Introduction to the profession of audiology, anatomy and physiology of the auditory system, types of hearing loss, hearing disorders, and clinical tests used in the diagnosis of children and adults with hearing loss. Previously offered as SPTH 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3203 Anatomy and Physiology of the Speech Mechanism
Prerequisites: A grade of "C" or higher in BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Overview of the structure and function of the skeletal, muscular, respiratory, phonatory, articulatory, auditory, and nervous system involved in the speech communication processes. Previously offered as CDIS 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3313 Phonetics
Description: The analysis and description of speech at the segmental and suprasegmental levels. Development of students' perceptual and analytical skills in speech sound production. Practice using the International Phonetic Alphabet for broad and narrow transcription. Overview of the speech production mechanism and process. Previously offered as CDIS 2213 and SPTH 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3413 Introduction to Research
Prerequisites: A grade of "C" or higher in STAT 2013, STAT 2053 or STAT 4053.
Description: Introduction to research process and evidence based practice in communication disorders, including how to locate and evaluate research articles, how to find possible research topics, issues related to conduction of experiment, and how to determine treatment effectiveness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4010 Clinic Practicum
Prerequisites: Consent of instructor.
Description: Supervised clinical practicum or internship in speech-language pathology and audiology. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4013 Diagnostics
Prerequisites: A grade of "C" or higher in CDIS 3213 and CDIS 3223.
Description: This course addresses principles and methods of assessment and diagnostics for people with communication disorders. The course includes test construction and design, reliability, validity, and other issues related to criterion and norm-referenced testing. Issues regarding diagnostic criteria and classification systems of communication disorders are also addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4023 Clinical Methods and Issues
Prerequisites: A grade of “C” or higher in CDIS 2213, CDIS 2223 and CDIS 3313.
Description: Fundamental process and procedures of clinical practicum, report writing, goal selection; production, assessment and recording of speech and language behaviors; development of interpersonal skills with clients, families, and other professionals; problem solving skills; professional organization and credentialing requirements and includes clinical observation. Previously offered as CDIS 4022.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4043 Audiology Clinical Methods
Description: Training in audiology clinic methods. Focus on roles, regulations, and responsibilities of audiology assistants. Includes audiology basics, providing patient care, clinic maintenance, ethics, hearing loss prevention, amplification and device maintenance, professional practices in health care and education settings, and communication/collaboration/teaming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4073 Introduction to Sociolinguistics
Description: The study of how languages and varieties vary in social contexts and how they are regarded. Same course as ENGL 4073. May not be used for degree credit with ENGL 5173 or CDIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4133 Audiology Treatment
Prerequisites: A grade of “C” or higher in CDIS 3123.
Description: Review of hearing aids, implantable hearing devices, medical management of hearing loss, aural rehabilitation, and other clinical treatments for children and adults with hearing loss. Previously offered as SPTH 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4313 Speech Science
Prerequisites: A grade of “C” or higher in CDIS 3313, CDIS 3203 and any PHYS course.
Description: Scientific bases of the acoustic parameters, the perceptual and productive processes of speech, and the interrelationships of those factors during speech communication. Previously offered as SPTH 4313. May not be used for degree credit with CDIS 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4423 Neural Bases of Speech and Language (N)
Prerequisites: A grade of “C” or higher in CDIS 3203.
Description: Neuroanatomy and neuro-physiological processes related to speech and language. Including basic anatomy of the central and peripheral nervous systems and the physiological processes involved in neuromotor control and neuronal function related specifically to speech and language. Previously offered as CDIS 4412.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Natural Science Reasoning

CDIS 4433 Communication Disorders in Adults
Prerequisites: A grade of “C” or higher in CDIS 3203 and CDIS 4423.
Description: A review of language disorders and changes occurring with both normal aging and common neurological diseases and traumas, with focus on cerebral vascular accidents. Neurophysiological bases and etiology are presented as well as evaluation and treatment of aphasia and right hemisphere disorders, dementia and traumatic brain injury.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4542 Intro to Dyslexia
Description: Definition, myths and facts of dyslexia. Prevalence, risk factors, key characteristics, impact. Consensus findings on literacy and the science of reading (e.g., National Reading Panel, National Early Literacy Panel, IES Practice Guides). May not be used for degree credit with CDIS 5542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4552 Language Processing for Reading and Writing
Description: Comprehensive exploration of the language processing requirements essential for proficient reading and writing. Typical development of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression. Detail on domains of language, including phonology, morphology, syntax, semantics, and pragmatics, to understand their significance in reading and writing proficiency. May not be used for degree credit with CDIS 5552.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4562 Dyslexia and the Brain
Description: Neurobiological underpinnings of reading. Cognitive, neural, genetic, and environmental factors that contribute to both typical and atypical reading development. Identification and function of neural circuits involved in reading. Neurobiological mechanisms underlying reading disorders such as dyslexia. Recommended prep: CDIS 4542/5542 or other background/experience with foundations of reading, dyslexia, or neural language processing. May not be used for degree credit with CDIS 5562.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4572 Assessment of Dyslexia
Prerequisites: Grade of "C" or better in CDIS 4542 or CDIS 5542.
Description: Methods to assess and support students with reading difficulties. Assessment tools and techniques, including screening, progress-monitoring, diagnostic, and outcome assessments. Practice reading and interpreting common diagnostic tests and informal diagnostic surveys to assess phonological and phoneme awareness, decoding skills, fluency, comprehension, spelling, and writing. May not be used for degree credit with CDIS 5572.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4900 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Research in speech, language, and hearing sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4970 Special Topics in CSD
Prerequisites: Consent of instructor.
Description: Individual and group investigations of topics in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4980 Independent Study in CDIS
Prerequisites: Junior standing and consent of instructor.
Description: Directed readings or research in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member. Required for graduation with departmental honors in communication sciences and disorders.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D
General Education and other Course Attributes: Honors Credit

CDIS 5000 Masters Research & Thesis
Prerequisites: Consent of graduate faculty.
Description: Research in speech, language and hearing sciences and disorders. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5013 Evidence-Based Practice
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders or consent of instructor.
Description: Principles and procedures of evidence-based practice in communication sciences and disorders; experience finding and evaluating systematic research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5113 Developmental Language Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of developmental language disorders from birth to the early school years. Coverage of the continuum of naturalness from play-based therapy to clinician-directed therapy. The course includes current standards of practice as well as attention to changes derived from evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5143 Speech Sound Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of speech sound disorders, including phonological disorders, articulation disorders, and childhood apraxia of speech. Affected individuals include toddlers, children, and young adults. The course includes current standards of practice as well as attention to changes derived from evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5153 Neurological Communication Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Communication changes occurring with aging and common neurological diseases and trauma. Neurophysiological bases and etiology. Evaluation and treatment of aphasia and right hemisphere disorders. Previously offered as CDIS 5152.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5163 Dysphagia
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Anatomy and neurophysiology of the swallowing mechanism in relation to pediatric and adult dysphagia. Evaluation, diagnosis and treatment of swallowing problems in children and adults including videofluoroscopic training with case studies. The first two-thirds of the course focus on adult dysphagia and the latter one third on pediatric dysphagia. Previously offered as CDIS 5160.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5183 Traumatic Brain Injury and Dementia
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Nature, evaluation and treatment of acquired cognitive communication disorders secondary to traumatic injury or dementia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5193 Motor Speech Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Nature, evaluation and treatment of neurologically-based motor speech disorders such as dysarthria and apraxia. Previously offered as CDIS 5172.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5210 Advanced Practicum
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, and consent of instructor.
Description: Practical experience for the advanced student on or off campus. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5243 Disorders of Literacy and Complex Language
Prerequisites: A grade of "B" or higher in CDIS 5113 and graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of literacy disorders and disorders of complex oral language. Clients include school-aged children, adolescents, and young adults. Students will make connections between literacy conventions and the structure of spoken language including complex phrases and sentences. The course includes current standards of practice as well as attention to changes derived from evidence-based practice. Previously offered as CDIS 5242.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5313 Speech Science
Description: Scientific bases of the acoustic parameters, the perceptual and productive processes of speech, and the interrelationships of those factors during speech communication. Previously offered as SPTH 4313. May not be used for degree credit with CDIS 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5330 Voice and Resonance Disorders
Description: This course is designed for students to have an advanced knowledge for the assessment and treatment of vocal and resonance disorders. Knowledge of the vocal mechanism is a pre-requisite of evaluating and treating these disorders and will be the emphasis in the early portion of this course. Previously offered as CDIS 5333 and 5334.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5340 Counseling for Speech-Language Pathologists
Description: This course is designed specifically for speech-language pathologists and presents the concepts of counseling as they relate to the assessment and treatment of individuals with communicative disorders, their families, and others in their environment. The goal is to make the connection between the theories of communication disorders and their application for individuals with communication disorders. Topics include the importance of a client-clinician relationship, efficacy beyond traditional measures, practice-based evidence, making change, diversity, and ethics. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5420 Augmentative/Alternative Communication
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Evaluation and management of communication disorders in individuals requiring specially adapted educational intervention programs. Adaptive communication technologies. Previously offered as CDIS 5423.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5433 Cleft Palate
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Recent research in the etiology, assessment and management of communicative disorders in individuals with cleft palate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5533 Autism Spectrum Disorder: Assessment & Intervention of Communication Deficits
Prerequisites: Graduate standing or permission of instructor.
Description: Assessment and treatment of communication deficits associated with autism spectrum disorder. Etiologies and recent trends in autism spectrum disorder will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5542 Intro to Dyslexia
Description: Definition, myths and facts of dyslexia. Prevalence, risk factors, key characteristics, impact. Consensus findings on literacy and the science of reading (e.g., National Reading Panel, National Early Literacy Panel, IES Practice Guides). May not be used for degree credit with CDIS 4542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5552 Language Processing for Reading and Writing
Description: Comprehensive exploration of the language processing requirements essential for proficient reading and writing. Typical development of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression. Detail on domains of language, including phonology, morphology, syntax, semantics, and pragmatics, to understand their significance in reading and writing proficiency. May not be used for degree credit with CDIS 4552.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5562 Dyslexia and the Brain
Description: Neurobiological underpinnings of reading. Cognitive, neural, genetic, and environmental factors that contribute to both typical and atypical reading development. Identification and function of neural circuits involved in reading. Neurobiological mechanisms underlying reading disorders such as dyslexia. Recommended prep: CDIS 4542/5542 or other background/experience with foundations of reading, dyslexia, or neural language processing. May not be used for degree credit with CDIS 4562.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5572 Assessment of Dyslexia
Prerequisites: Grade of "C" or better in CDIS 4542 or CDIS 5542
Description: Methods to assess and support students with reading difficulties. Assessment tools and techniques, including screening, progress-monitoring, diagnostic, and outcome assessments. Practice reading and interpreting common diagnostic tests and informal diagnostic surveys to assess phonological and phoneme awareness, decoding skills, fluency, comprehension, spelling, and writing. May not be used for degree credit with CDIS 4572.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5710 Special Topics in Communication Disorders
Prerequisites: Consent of instructor.
Description: Individual and group investigations of problems in communication sciences and disorders. Repeatable with substantial change in content. Offered for variable credit, 2-3 credit hours, maximum of 12 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 2-3 Contact: 2-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5713 Fluency Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Current research regarding the nature of etiologies, evaluation and treatment of dysfluent speech in both children and adults. Previously offered as CDIS 4443 and SPTH 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5720 Seminar in Communication Sciences and Disorders
Prerequisites: Consent of instructor.
Description: Readings, discussion, and inquiry in communication disorders. Topics may include theory, research, or application to evaluation or treatment of one or multiple disorders. Repeatable with substantial change in content. Offered for variable credit, 2-3 credit hours, maximum of 12 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 2-3 Contact: 2-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5730 Independent Study in Communication Sciences and Disorders
Prerequisites: Graduate standing and consent of instructor.
Description: Directed readings or research in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5732 Professional Issues
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5760 Portfolio
Prerequisites: Graduate standing.
Description: Nature and preparation of professional portfolio with faculty guidance. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

Comparative Biomedical Sciences (CBSC)

CBSC 5000 Master's Research and Thesis
Prerequisites: Graduate standing.
Description: Research problem for meeting requirements of the Masters degree. Previously offered as VAPP 5000 and VBSC 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 5010 Professional Skills for Biomedical Sciences
Prerequisites: Graduate student standing; consent of instructor.
Description: Acquiring skills that are usually not taught in other courses but are essential to be successful in the graduate program as well as in a career in science. Writing and publishing a scientific paper, writing a successful grant proposal, preparing effective oral and poster presentations, and understanding professional ethics in the conduct of scientific research. Previously offered as VBSC 5010. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5013 Comparative Biomedical Sciences I: Cell & Molecular Biology
Prerequisites: Graduate standing and consent of instructor.
Description: The course is designed to provide a comprehensive understanding of cellular and molecular biology including protein and DNA structure and function, gene regulation, membrane function and traffic, mitochondria, cytoskeleton, cell communication, cell cycle, cell death, and cell junctions, adhesion and extracellular matrix as well as other relevant topics. Previously offered as VBSC 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5023 Comparative Biomedical Sciences II: Pathophysiology
Description: Integrated applied biology and pathophysiology of hosts and pathogens of veterinary interest including infectious disease processes; hemodynamic, inflammatory, immune and tissue repair responses; genetic, environmental, nutritional, and neoplastic disorders; and aging. Previously offered as VBSC 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5103 Biochemical and Molecular Toxicology
Prerequisites: Graduate standing and consent of instructor.
Description: In-depth overview of biochemical and molecular mechanisms of interactions between exogenous chemicals and living systems. Transport, distribution, elimination and alteration of exogenous chemicals within the body and mechanisms whereby exogenous chemicals disrupt biochemical processes critical for cell/organ/organismal integrity and function. Same course as ITOX 5103. Previously offered as VBSC 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5110 Special Problems
Prerequisites: Graduate standing and consent of instructor.
Description: Special research problems in the various fields of veterinary biomedical sciences. Previously offered as VIDP 5110 and VBSC 5110. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 5153 Veterinary Immunology
Description: Basic principles of immunology and their application to veterinary medicine. Same course as VME 7153. Previously offered as VBSC 5253 and CBSC 5253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5161 Epidemiology and Evidence-Based Medicine
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5213 Toxicology: Molecules to Ecosy
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5264 General Pathology
Prerequisites: Graduate standing and consent of instructor.
Description: Cellular and tissue pathology, pigments, inflammation, immunopathology, disturbances of growth and circulation, and neoplasia. Functional disturbances that accompany changes in structures as well as the causes and pathogenesis of diseases. Same course as VMED 7264. Previously offered as VBSC 5264.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5325 Veterinary Parasitology
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5333 Pharmacology I
Prerequisites: Graduate standing and consent of instructor.
Description: Introduction of the principles of pharmacodynamics, drug disposition and pharmacokinetics. Pharmacological effects, mechanisms of actions, metabolism, disposition, clinical indications and toxic effects of drugs acting on the autonomic, central nervous, cardiovascular, respiratory, and renal systems. Same course as VMED 7333. Previously offered as VBSC 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5363 Clinical Pathology
Prerequisites: Graduate standing and consent of instructor.
Description: Basic concepts pertinent to data interpretation and laboratory methods used in evaluation of disease. Same course as VMED 7363. Previously offered as VBSC 5363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5404 Techniques in Parasitology
Prerequisites: Graduate standing and general parasitology; helminthology or concurrent enrollment.
Description: Experimental application of basic research and teaching techniques in helminthology and protozoology. Individual and analysis of experimental situations and techniques applicable to all areas of zoology. Previously offered as VBSC 5404.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5413 Food Safety and Public Health
Prerequisites: Graduate standing and consent of instructor.
Description: Approaches and skills for identifying, investigating and mitigating occurrences of disease outbreaks; introduction to zoonotic diseases; role veterinarians play in protecting public health; potential human health hazards in foods of animal origin. Course previously offered as VMED 5313 and VBSC 5413. Same course as VMED 7413 and MPH 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5432 Pharmacology II
Prerequisites: Graduate standing and consent of instructor.
Description: Continuation of VBSC 5333 that includes the mechanisms of action, disposition, adverse effects, and indications for groups of pharmacological agents used in veterinary medicine. Same course as VMED 7432. Previously offered as VBSC 5432.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5444 Veterinary Bacteriology & Mycology
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5454 Veterinary Virology
Prerequisites: Graduate standing and consent of instructor.
Description: Course covers important animal diseases caused by viruses. These infectious diseases will be taught in an animal systems approach. The first part will provide an overview of veterinary virology. The second part will discuss the different viral diseases of animals. Material for each of the viral infections includes the mechanisms of the disease processes and the relationships of zoonotic diseases to community and environmental health as well as important zooneses. Same course as VMED 7454. Previously offered as VBSC 5454.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5482 Hemolymphatic and Oncology
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the blood and lymphatic system. (6 week module). Same course as VMED 7482. Previously offered as VBSC 5482.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5512 Laboratory Animal Medicine
Prerequisites: Graduate standing and consent of instructor.
Description: Introductory course focusing on the biology and major diseases of commonly used laboratory animals. Same course as VMED 7512. Previously offered as VBSC 5512.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5533 Toxicology
Prerequisites: Graduate standing and consent of instructor.
Description: Diagnosis and management of intoxications involving plant, chemical, and biological toxins. Same course as VMED 7533. Previously offered as VBSC 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5542 Clinical Endocrinology I
Prerequisites: Graduate standing and consent of instructor.
Description: Advanced medical endocrinology addressing diagnostic endocrinology and therapeutic endocrinology. Diagnostic endocrinology shall examine the physiological and medical basis for selecting provocative or non-provocative testing procedures as an adjunct to completing a definitive diagnosis. Therapeutic endocrinology involves the use of diagnostic endocrinology to evaluate the efficacy of medical treatment of endocrinopathies and the medical use of hormonal preparations to control animal physiology and endocrinology and non-endocrine diseases. Same course as VMED 7542. Previously offered as VBSC 5542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5563 Musculoskeletal System
Prerequisites: Graduate standing and consent of instructor.
Description: Diagnosis and management of intoxications involving plant, chemical and biological toxins. Same course as VMED 7563. Previously offered as VBSC 5563.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5564 Alimentary System
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the alimentary system. Same course as VMED 7564. Previously offered as VBSC 5564.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5583 Dermatology and Endocrinology
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to skin and the endocrine system (nine-week model). Same course as VMED 7583. Previously offered as VBSC 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5612 Clinical Neurology
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of nervous system diseases. Same course as VMED 7612. Previously offered as VBSC 5612.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5613 Biology of Parasites
Prerequisites: Graduate standing and consent of instructor.
Description: A systematic and ecologic approach to the study of parasitology. Host-parasite relationships, physiology, ecology and behavioral aspects of parasitic organisms. Previously offered as VBSC 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5614 Cardiopulmonary System
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the cardiovascular and respiratory systems. Same course as VMED 7614. Previously offered as VBSC 5614.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5661 Infectious and Parasitic Diseases of Wild Animals
Prerequisites: Graduate standing and consent of instructor.
Description: Systematic approach to infectious and parasitic diseases affecting wild animals. Capture, restraint, and disease recognition in wild species, population management implications of disease diagnosis. Same course as VMED 7661. Previously offered as VBSC 5661.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5662 Urinary System
Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment and prevention of diseases related primarily to the urinary system. Same course as VMED 7662. Previously offered as VBSC 5662.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5671 Clinical Endocrinology II
Prerequisites: Graduate standing and consent of instructor.
Description: Advanced medical endocrinology, focusing on endocrine diseases associated with 1) dysfunction of the endocrine pancreas, 2) selected endocrinopathies of the reproductive system, and 3) therapeutic use of hormones to control reproductive activity of animals. Same course as VMED 7671. Previously offered as VBSC 5671.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5801 Nonclinical Drug Development
Prerequisites: Graduate standing and consent of instructor.
Description: This course will cover the basic to highly-regulated concepts in nonclinical drug development including pharmacology, pharmacokinetics, and toxicology, along with topics in chemistry manufacturing and controls. Same course as ITOX 5801. Previously offered as VBSC 5801.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5802 Experimental Principles and Approaches
Prerequisites: Graduate standing and consent of instructor.
Description: A review of experimental principles and approaches essential for design, conduct and analysis of research. Same course as ITOX 5802. Previously offered as VBSC 5802.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism
Prerequisites: Graduate standing and consent of instructor.
Description: The course will review the history and current issues related to the use of chemicals as agents of warfare and terrorism. Students will participate in weekly roundtable lectures/discussions and review publications related to various toxicological issues surrounding these chemicals. Same course as ITOX 5902. Previously offered as VBSC 5902.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 6000 PhD Research and Dissertation
Prerequisites: Graduate standing.
Description: Research problem for meeting requirements of the PhD degree. Previously offered as VBSC 6000. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 6010 Respiratory and Infectious Disease Seminar
Prerequisites: Graduate standing and consent of IOR.
Description: The Oklahoma Center for Respiratory and Infectious Disease hosts seminars each semester. This course requires mandatory attendance for seminars with opportunities to meet with and have discussions with the visiting scientist. Previously offered as VBSC 6010. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Dean of Veterinary Med

CBSC 6110 Seminar
Prerequisites: Graduate standing.
Description: Literature and research problems pertaining to veterinary biomedical sciences. Previously offered as VBSC 6110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 6200 Topics in Advanced Pharmacology and Toxicology
Prerequisites: Graduate standing and consent of instructor.
Description: Selected topics in advanced pharmacology, including xenobiotic kinetics and dynamics. Previously offered as VBSC 6200. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate, Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 6223 Xenobiotic Disposition
Prerequisites: Graduate standing and consent of instructor.
Description: Quantitative analysis of xenobiotic absorption, metabolism, and excretion. Analysis of xenobiotic concentration-time data using pharmacokinetic software. Same course as ITOX 6223. Previously offered as VBSC 6201 and VBSC 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 6710 Seminar in Veterinary Clinical Sciences
Prerequisites: Graduate standing in the College of Veterinary Medicine, or internship or residency training program in the Department of Veterinary Clinical Services.
Description: Literature and research of problems pertaining to veterinary clinical sciences. Previously offered as VBSC 6710. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

CBSC 6960 Current Topics in Veterinary Clinical Pathology
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

Computer Science (CS)

CS 1003 Computer Proficiency
Description: For students with minimal personal computer skills. Use of Internet and productivity software such as word processing, spreadsheets, databases, and presentation software. The ability to log on to a personal computer, access the OSU network, and access OSU Web sites is assumed. Previously offered as CS 1002.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 1013 Computer Science Principles
Description: Computing as a creative human activity, abstraction to reduce detail and focus on concepts relevant to understanding and solving problems, describing data and information to facilitate the creation of knowledge, discuss algorithms as tools for developing and expressing solutions to computational problems, use programming is a creative process that produces computational artifacts; and discuss digital devices, systems, and the networks that interconnect them.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 1103 Computer Programming (Q)
Prerequisites: MATH 1513 or higher, each with a grade of "C" or better.
Description: Introduction to computer programming using a high-level computer language, including subprograms and arrays. Principles of problem solving, debugging, documentation, and good programming practice. Elementary methods of searching and sorting. No prior programming or computing experience needed. Previously offered as CS 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science
General Education and other Course Attributes: Analytical & Quant Thought

CS 1113 Computer Science I (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better.
Description: Introduction to computer science using a block-structured high-level computer language, including subprograms, arrays, recursion, records, and abstract data types. Principles of problem solving, debugging, documentation, and good programming practice. Elementary methods of sorting and searching. Use of operating system commands and utilities. Previously offered as CS 2113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Computer Science
General Education and other Course Attributes: Analytical & Quant Thought

CS 2133 Computer Science II
Prerequisites: CS 1113 with a grade of "C" or better.
Description: Recursive algorithms. Intermediate methods of searching and sorting. Mathematical analysis of space and time complexity, worst case, and average case performance. Course previously offered as CS 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 2351 Unix Programming
Prerequisites: CS 1113 or EET 2303 with a grade of "C" or better.
Description: The UNIX programming system. The programming environment. The UNIX file system and the shell. Use of pipes and filters. Course previously offered as CS 3451.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Computer Science

CS 2433 C/C++ Programming
Prerequisites: CS 1113 with a grade of "C" or better.
Description: C/C++ programming language types, operators, expressions, control flow, functions, structures, pointers, arrays, UNIX interface. Basic object oriented programming using C++ and the related language syntax and functionality. Previously offered as CS 2432.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 2570 Special Problems in Computer Science
Prerequisites: Consent of instructor and freshman or sophomore standing.
Description: Current topics and applications of computer science. Existing and new topics to computer science. Allows lower-division students to study topics not provided in existing classes. Can be individual study or a class with a new subject. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3030 Industrial Practice in Computer Science
Prerequisites: CS 3443 and MATH 2144, each with a grade of "C" or better, junior standing, consent of departmental adviser.
Description: Applied computing in industry. Topics vary with cooperating employers. Written reports will be specified by adviser. Basic object oriented programming using C++ and the related language syntax and functionality. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3353 Data Structures and Algorithm Analysis I
Prerequisites: CS 2133, and CS 3653 or (MATH 3613 and MATH 4663), each with a grade of "C" or better.
Description: Storage, structures, data and information structures, list processing, trees and tree processing, graphs and graph processing, searching, and sorting. Previously offered as CS 4343 and CS 4344.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3363 Organization of Programming Languages
Prerequisites: CS 2133 and (CS 3443 or ECEN 3213), each with a grade of "C" or better.
Description: Programming language constructs. Run time behavior of programs. Language definition structure. Control structures and data flow programming paradigms. Previously offered as CS 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3443 Computer Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: Functional and register level description of computer systems, computer structures, addressing techniques, macros, linkage, input-output operations. Introduction to file processing operations and auxiliary storage devices. Programming assignments are implemented in assembly language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3513 Numerical Methods for Digital Computers
Prerequisites: MATH 2153 with a grade of "C" or better; MATH 3013 with a grade of "C" or better, or concurrent enrollment; or MATH 3263 with a grade of "C" or better and knowledge of programming.
Description: Errors, floating point numbers and operations, interpolation and approximation, solution of nonlinear equations and linear systems, condition and stability, acceleration methods, numerical differentiation and integration. Course previously offered as CS 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3570 Special Problems in Computer Science
Prerequisites: Junior standing and consent of instructor.
Description: Existing and new topics to computer science. Allows lower-division students to study topics not provided in existing classes. Can be individual study or a class with a new subject. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3613 Theoretical Foundations of Computing
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Introduction to the classical theory of computer science. Sequential machines and their applications to devices, processes, and programming. Models of computation: finite-state automata, push-down automata, Turing machines. The role of non-determinism. Limits of digital computation. Computability and unsolvability. The Church-Turing Thesis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3653 Discrete Mathematics for Computer Science
Prerequisites: MATH 2144 with a grade of "C" or better.
Description: Theory and applications of discrete mathematical models fundamental to analysis of problems in computer science. Set theory, formal logic and proof techniques, relations and functions, combinatorics and probability, undirected and directed graphs, Boolean algebra, switching logic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4143 Computer Graphics
Prerequisites: MATH 2163 and CS 3353, each with a grade of "C" or better.
Description: Interactive graphics programming; graphics hardware; geometrical transformation; data structures for graphic representations; viewing in three dimensions; representation of 3D shapes; hidden edge and hidden surface removal algorithms; shading models. May not be used for degree credit with CS 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4153 Mobile Applications Development
Prerequisites: CS 2133 or 2433, each with a grade of "C" or better.
Description: The history of mobile apps and their implication on computing in general. Survey of the various platforms and approaches used for mobile apps. Examine the differences between "conventional" programs and mobile apps. Learn tools and techniques to develop mobile apps, and demonstrate proficiency through development assignments. Must have access to computer running Mac OS. May not be used for degree credit with CS 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4173 Video Game Development
Prerequisites: CS 2133, and CS 2433 and MATH 2144, all with a grade of "C" or better.
Description: History of video games. A survey of various game platforms. Computer graphics, audio tools and techniques, and artificial intelligence for game development. Game engines. Game development tools and techniques. An overview of the video game industry from a development perspective. May not be used for degree credit with CS 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4183 Video Game Design
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Theory and pragmatics of game design including game mechanics, storytelling, and types of game play. The relationship between human/computer interaction and the user experience. A survey of game genres. An overview of the video game industry from a design perspective. May not be used for degree credit with CS 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4243 Introduction to Computer Security
Prerequisites: CS 3443 or ECEN 3213, each with a grade of "C" or better.
Description: Introductory course to computer security. Covers a broad range of basic topics in security, including cryptography, computer security, and network security. May not be used for degree credit with CS 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4273 Software Engineering
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. Same course as ECEN 4273. May not be used for degree credit with CS 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4283 Computer Networks
Prerequisites: CS 2133 with a grade of "C" or better; and CS 3443 or ECEN 3213 with a grade of "C" or better; UNIX knowledge.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. Same course as ECEN 4283. May not be used for degree credit with CS 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4323 Design and Implementation of Operating Systems I
Prerequisites: CS 2133; and CS 3443 or ENSC 3213 or ECEN 3213; and CS 3653 and CS 4343 or CS 3353, all with a grade of "C" or better.
Description: Process activation and process context block. Batch, multi-programmed, and timeshared operating system. Process management, memory management, and synchronization primitives. Deadlock prevention, avoidance, and detection. May not be used for degree credit with CS 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4373 Agile Software Development
Description: This course includes a comprehensive overview of the principles and practices of Agile software development based on Agile community's recent recommendations. The emphasis is on quick realization of system value through disciplined, iterative, and incremental software development techniques and the elimination of wasteful practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4383 Network Security and Defense
Prerequisites: CS 2133 with a grade of "C" or better.
Description: Network Security and Defense exposes students to intrusion detection, network auditing, (forensic) evidence collection, security policy design/implementation for networks, and incidence response. Students explore the viewpoint of both the attacker and the defender (network administrator) using appropriate tools in laboratory exercises, May not be used for degree credit with CS 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4433 Introduction to Database Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, relational database design with normalization theorems, XML; basic file organization and storage management; elementary e-commerce web application development; database systems and the Internet. May not be used for degree credit with CS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4483 Network Attack Security
Prerequisites: CS 3443, CS 4243, and CS 4283, each with a grade of "C" or better.
Description: This course will expand the practical knowledge of cyber attacks and their defense technologies as applied to an industrial setting. The course covers the functions and purposes of the key elements used to analyze, create, secure, and protect an industrial cyber infrastructure from cyber threats and attacks. May not be used for degree credit with CS 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013, each with a grade of "C" or better, knowledge of programming or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems of equations. Same course as MATH 4513. May not be used for degree credit with MATH 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4523 Cloud Computing and Distributed Systems
Prerequisites: CS 3443; and CS 4343 or CS 3353, each with a grade of "C" or better.
Description: Cloud computing and distributed systems architectures and models. Usage of Virtual Machines. Distributed computing frameworks. Using the cloud for big data analytics. Cloud deployment of data science algorithms. Cloud services. Security. May not be used for degree credit with CS 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4570 Special Topics in Computing
Prerequisites: Honors Program participation, junior standing.
Description: Advanced topics and applications of computer science. Typical topics include operating systems, multiprocessor systems, programming systems or various mathematical and statistical packages. Designed to allow students to study topics not provided in existing courses. Offered for variable credit, 1-3 credit hours, maximum of 5 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 4623 Introduction to Cyber Physical Systems
Prerequisites: CS 2133 with grade of "C" or better.
Description: Introduction to principles and technologies dealing with cyber physical systems and Internet of Things (IoT). Design of cyber physical frameworks and the process underlying creation of 3D VR based simulation models and Next Generation Internet frameworks to support the adoption of cyber physical methodologies. Information modeling and systems engineering based techniques to support the design of collaborative methodologies for CPS contexts from various domains including robotics and medicine. May not be used for degree credit with CS 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4743 Extended Reality
Prerequisites: CS 2133 and CS 2433 and CS 3653, each with a grade of "C" or better.
Description: Survey the history and state-of-the-art of immersive computing, aka VAMR (virtual/augmented/mixed reality) computing. Tools and techniques to develop for a variety of target platforms. Human physiological factors that affect the design and development of immersive systems. The relationship of immersive computing with IoT (Internet of Things). Construction of virtual environments and the tracking of real and virtual objects. Applications of immersive computing to solve real-world problems. May not be used for degree credit with CS 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4783 Machine Learning
Prerequisites: CS 4343 or CS 3353, and MATH 3013, each with a grade of “C” or better.
Description: A probabilistic, statistical approach to automated pattern discovery applied to large datasets. Constructing computational models with this information and assessing their behavior and reliability. Representing data and devising tools for discovering these models. Class focuses on the development and analysis of learning algorithms as well as the mathematical formulations underlying statistical processing. May not be used for degree credit with CS 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4793 Artificial Intelligence I
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Broad coverage of core artificial intelligence (AI) topics, including search-oriented problem solving, knowledge representation, logical inference, AI languages, history and philosophy of AI. May not be used for degree credit with CS 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4883 Social Issues in Computing
Prerequisites: Senior standing and a grade of "C" or better in ENGL 3323 or BCOM 3113 or BCOM 3223 or SPCH 3723.
Description: The history and evolution of computing systems, providing the background for the analysis of the social impact of computers. The social implications of computer use and or misuse with emphasis on the effects on the individual, society, and other human institutions. Social responsibilities of people involved in using or applying computers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4983 Senior Capstone Project
Prerequisites: CS 4273 with a grade of "C" or better.
Description: This course enables senior computer science majors to organize and apply the knowledge they have acquired from the undergraduate curriculum. Students are expected to work in teams to develop software solutions to real-world problems identified by an instructor. Teams are required to analyze the problem presented to them, design and implement a solution, and provide a report with performance analysis. Each team is also expected to present its work, including its ethical and social implications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors project under the direction of a faculty member, with a second faculty reader and an oral examination. Required for graduation with departmental honors in computing and information science.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science
General Education and other Course Attributes: Honors Credit

CS 5000 Master's Thesis
Prerequisites: Consent of major professor.
Description: Roles and responsibilities of the agricultural education teacher; types of program offerings; steps of the teaching-learning process; place of agricultural education in relation to other educational programs in school systems. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5030 Professional Practice
Prerequisites: Graduate standing in computer science, consent of the department head.
Description: Experience in the application of computer science principles to problems encountered in industry and government. Participation in problem solving in the role of junior computer scientist, junior software engineer, or computer science intern. All problem solutions documented. Required written report to the major professor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5033 Parallel Algorithms and Programming
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better, or consent of instructor.
Description: Models of parallel computation, design and analysis of parallel algorithms: fundamental parallel algorithms for selected sorting, arithmetic, and matrix, and graph problems, and applications in science and engineering, message-passing programming, and shared-memory programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5070 Seminar and Special Problems
Prerequisites: Consent of instructor.
Description: Designed to allow students to study advanced topics not provided in existing courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5113 Computer Organization and Architecture
Prerequisites: CS 3443 with a grade of "C" or better.
Description: Computer architecture, computer control, microprogrammed control, addressing structures, memory hierarchies, hardware description languages, specific architectures, hardware simulation, and emulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5123 Cloud Computing and Distributed Systems
Prerequisites: CS 3443; and CS 4343 or CS 3353, each with a grade of "C" or better.
Description: Cloud computing and distributed systems architectures and models. Usage of Virtual Machines. Distributed computing frameworks. Using the cloud for big data analytics. Cloud deployment of data science algorithms. Cloud services. Security. May not be used for degree credit with CS 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5143 Computer Graphics
Prerequisites: MATH 2163 and CS 3353, each with a grade of "C" or better.
Description: Interactive graphics programming; graphics hardware; geometrical transformation; data structures for graphic representations; viewing in three dimensions; representation of 3D shapes; hidden edge and hidden surface removal algorithms; shading models. May not be used for degree credit with CS 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5153 Mobile Applications Development
Prerequisites: CS 2133 or 2433, each with a grade of "C" or better.
Description: The history of mobile apps and their implication on computing in general. Survey of the various platforms and approaches used for mobile apps. Examine the differences between "conventional" programs and mobile apps. Learn tools and techniques to develop mobile apps, and demonstrate proficiency through development assignments. Must have access to computer running Mac OS. May not be used for degree credit with CS 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5163 Video Game Development
Prerequisites: CS 2133, and CS 2433 and MATH 2144, all with a grade of "C" or better.
Description: History of video games. A survey of various game platforms. Computer graphics, audio tools and techniques, and artificial intelligence for game development. Game engines. Game development tools and techniques. An overview of the video game industry from a development perspective. May not be used for degree credit with CS 4173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5173 Video Game Production
Prerequisites: CS 4173 and CS 4183, each with a grade of "C" or better.
Description: The various aspects of video game production and the video game industry will be covered, including technical production and testing, roles and responsibilities of team members, project management, and legal concerns related to video game production. Professionals from the video game industry will be invited to make presentations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5183 Video Game Design
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Theory and pragmatics of game design including game mechanics, storytelling, and types of game play. The relationship between human/computer interaction and the user experience. A survey of game genres. An overview of the video game industry from a design perspective. May not be used for degree credit with CS 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5223 Design and Implementation of Operating Systems I
Prerequisites: CS 2133; and CS 3443 or ENSC 3213 or ENSC 3213; and CS 3653 and CS 4343 or CS 3353, all with a grade of "C" or better.
Description: Process activation and process context block. Batch, multi-programmed, and timeshared operating system. Process management, memory management, and synchronization primitives. Deadlock prevention, avoidance, and detection. May not be used for degree credit with CS 4323. For non-CS majors only.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5233 Intro to Database Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, relational database design with normalization theorems, XML; basic file organization and storage management; elementary e-commerce web application development; database systems and the Internet. May not be used for degree credit with CS 4433 or CS 5423. Previously offered as CS 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5243 Introduction to Computer Security
Prerequisites: CS 3443 with a grade of "C" or better.
Description: Introductory course to computer security. Covers a broad range of basic topics in security, including cryptography, computer security, and network security. May not be used for degree credit with CS 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5253 Digital Computer Design
Prerequisites: ECEN 4243 or graduate standing.
Description: Analysis and design of digital computers. Arithmetic algorithms and the design of the arithmetic/logic unit (ALU). Serial and parallel data processing; control and timing systems; microprogramming; memory organization alternatives; input/output interfaces. Same course as ECEN 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5263 Quantum Computing
Prerequisites: Graduate standing.
Description: The main theory of quantum information science and its applications to communications, computing and cryptography. Topics include introduction to quantum mechanics, quantum gates, circuits, entropy, cryptographic schemes, and implementations. Current technology in support of quantum processing will be reviewed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5273 Advanced Software Engineering
Prerequisites: CS 4273 with a grade of "C" or better.
Description: Continuation of CS 4273. Formal methods for software design and development. Static analysis. Emerging design and development approaches. Model checking and model-based software reuse. Component-based software engineering and software repositories. Same course as ECEN 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5283 Computer Network Programming
Prerequisites: CS 4283 with a grade of "C" or better.
Description: Detailed technical concepts related to Internet and multimedia, high speed LANS, high speed transport protocols, MPLS, multicasting, Int. serv/Diff serv, Router Buffer management, self-similar traffic, and socket programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5313 Formal Language Theory
Prerequisites: CS 3613 with a grade of "C" or better.
Description: Formal language theory applied to procedure oriented languages. Application of finite state algorithms to lexical analysis. Chomsky hierarchy of languages. Generation, recognition, and closure properties of languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5323 Design and Implementation of Operating Systems II
Prerequisites: CS 4323 with a grade of "C" or better.
Description: Task systems and concurrent programming, synchronization, and inter process communication. Theoretical investigation of resource sharing and deadlock, memory management, strategies, and scheduling algorithms, queuing theory, distributed operating systems. System accounting, user services and utilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5363 Advanced Organization of Programming Languages
Prerequisites: CS 3363 with a grade of "C" or better.
Description: Continuation of CS 3363, mathematical theory of computer language organization functional programming. Parallelism in languages. Mathematics of control structures and data structures. Applicative languages. Symbolic languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5373 Advanced Object-Oriented Programming for Windowing Environments
Prerequisites: For CS students: CS 2133 and CS 2433, each with a grade of "C" or better. For TCOM students: CS 4343 or CS 3353 with a grade of "C" or better and a working knowledge of C++.
Description: Applying the object-oriented computing model to the design and development of software for windowing environments. Effective use of Graphical User Interfaces (GUIs), the Internet, data interchange principles and related topics. No credit for students with credit in CS 3373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5383 Computer Networks
Prerequisites: CS 2133 with a grade of "C" or better; and CS 3443 or ECEN 3213 with a grade of "C" or better; UNIX knowledge.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. May not be used for degree credit with CS/ECEN 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5413 Data Structures and Algorithm Analysis II
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better.
Description: Data structures and their application in recursive and iterative algorithms. Static and dynamic data structure representations and processing algorithms. Dynamic and virtual storage management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5423 Principles of Database Systems
Prerequisites: CS 4343 or CS 3353; and CS 4433 or equivalent; each with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, functional dependencies, relational database design with normalization theorems, query processing, fault recovery, concurrent control, web-based database systems. Introduction to NoSQL databases, querying NoSQL databases. May not be used for degree credit with CS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5433 Big Data Management
Prerequisites: CS 3353.
Description: Introduction to storing, processing and analyzing big data. Topics to be covered include map-reduce model within the Hadoop framework, data summarization, query and analysis; data munging and transformation; streaming data; transferring structured data; setting up distributed services; fast data processing using Apache Spark, including querying, live data streaming, machine learning and parallel processing; writing data pipeline jobs; introduction to machine learning using R or Python.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5473 Software Engineering
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. May not be used for degree credit with CS 4273 and ECEN 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5483 Network Attack Security
Prerequisites: CS 3443, CS 5243, and CS 5383.
Description: This course will expand the practical knowledge of cyber attacks and their defense technologies as applied to an industrial setting. The course covers the functions and purposes of the key elements used to analyze, create, secure, and protect an industrial cyber infrastructure from cyber threats and attacks. May not be used for degree credit with CS 4483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5513 Numerical Computation
Prerequisites: MATH 3013 or equivalent courses with a grade of "C" or better and CS 3513 or an equivalent course with a grade of "C" or better and a knowledge of computer programming.
Description: This course covers advanced topics in numerical computation including matrix multiplication, norms, singular value decomposition, sensitivity of square systems, LU decomposition, pivoting, roundoff error in Gaussian elimination, orthogonalization, least squares, and Eigenvalue problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5583 Network Security and Defense
Prerequisites: CS 2133.
Description: Network Security and Defense exposes students to intrusion detection, network auditing, (forensic) evidence collection, security policy design/implementation for networks, and incidence response. Students explore the viewpoint of both the attacker and the defender (network administrator) using appropriate tools in laboratory exercises. May not be used for degree credit with CS 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5623 Introduction to Cyber Physical Systems
Prerequisites: CS 2133 with grade of "C" or better.
Description: Introduction to principles and technologies dealing with cyber physical systems and Internet of Things (IoT). Design of cyber physical frameworks and the process underlying creation of 3D VR based simulation models and Next Generation Internet frameworks to support the adoption of cyber physical methodologies. Information modeling and systems engineering based techniques to support the design of collaborative methodologies for CPS contexts from various domains including robotics and medicine. May not be used for degree credit with CS 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5653 Automata and Finite State Machines
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Sequential machines and automata. Hierarchy of recognizers. Decision problems and closure properties. Finite and infinite state machines. Cellular and stochastic automata. Coverings of automata.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5663 Computability and Decidability
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Primitive and partial recursive functions. Equivalence of models of computation. The Halting problem and undecidability. Reducing one problem to another or representation change. Tractability and the P-NP problem. Complexity hierarchies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5683 Big Data Analytics
Prerequisites: CS 5513 or instructor's permission.
Description: This course focuses on data science methods to analyze multiple types of massive datasets along with their applications on real world problems like web analysis and recommender systems. May not be used for degree credit with MSIS 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5723 Artificial Intelligence I
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Broad coverage of core artificial intelligence (AI) topics, including search-oriented problem solving, knowledge representation, logical inference, AI languages, history and philosophy of AI. May not be used for degree credit with CS 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5743 Extended Reality
Prerequisites: CS 2133 and CS 2433 and CS 3653, each with a grade of "C" or better.
Description: Survey the history and state-of-the-art of immersive computing, aka VAMR (virtual/augmented/mixed reality) computing. Tools and techniques to develop for a variety of target platforms. Human physiological factors that affect the design and development of immersive systems. The relationship of immersive computing with IoT (Internet of Things). Construction of virtual environments and the tracking of real and virtual objects. Applications of immersive computing to solve real-world problems. May not be used for degree credit with CS 4743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5753 Representation Learning
Prerequisites: CS 5783
Description: This course introduces the field of representation learning, a key aspect of machine learning that focuses on automatically extracting data features, rather than manually crafting them. The course covers several modern deep learning techniques, such as neural networks, auto-encoders, attention, domain-specific representation learning tasks, contrastive learning, and knowledge distillation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5763 Responsible AI Development and Deployment in Healthcare
Prerequisites: CS 5783, HCA 5013, HCA 5133
Description: This course provides a comprehensive exploration of the development, implementation, and management of AI systems in healthcare, with a special emphasis on ethical, regulatory, and human-centered considerations. The course will cover the technical foundations of AI/ML, explainable AI (XAI) models, and the challenges of data bias, security, and privacy specific to healthcare applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5773 Computational Neuroscience
Prerequisites: CS 3353 with a grade of C or higher.
Description: Students will be introduced to the field of Computational Neuroscience. Throughout the course, we will explore mathematical and computational models that attempt to fit and predict the behavior of neurons and nervous systems at various levels of abstraction. A strong emphasis will be placed on the cross-disciplinary nature of this field of research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5783 Machine Learning
Prerequisites: CS 3353 or CS 4343, and MATH 3013, each with a grade of "C" or better.
Description: A probabilistic, statistical approach to automated pattern discovery applied to large datasets. Constructing computational models with this information and assessing their behavior and reliability. Representing data and devising tools for discovering these models. Class focuses on the development and analysis of learning algorithms as well as the mathematical formulations underlying statistical processing. May not be used for degree credit as CS 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5793 Artificial Intell II
Prerequisites: CS 4793 with a grade of "C" or better.
Description: Advance knowledge representation and expert system building, including reasoning under uncertainty. Applications to planning, intelligent agents, natural language processing, robotics, and machine learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5813 Principles of Wireless Networks
Prerequisites: CS 4283 or ECEN 4283, with a grade of "C" or better.
Description: Wireless network operation, planning, mobility management, cellular and mobile data networks based on CDMA, TDMA, GSM, IEEE 802-11 WLANS, Adhoc networks, Bluetooth, power management, wireless geolocation and indoor positioning techniques. Same course as ECEN 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5823 Network Algorithmics
Prerequisites: CS 4283 and CS 4323, with a grade of "C" or better.
Description: Discusses principles of efficient network implementation-router architecture, end node architecture, data copying, timer maintenance, demultiplexing, forwarding table, lookups, switching, scheduling, IP traceback.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6000 Doctoral Dissertation
Prerequisites: Graduate standing and approval of advisory committee.
Description: Graduate standing and approval of advisory committee. Independent research under the direction of a member of the graduate faculty. For students working toward a PhD degree. Offered for variable credit, 2-15 credit hours, maximum of 40 credit hours.
Credit hours: 2-15
Contact hours: Contact: 2-15 Other: 2-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6210 Advanced Topics in Parallel and Distributed Systems
Prerequisites: CS 5113 with a grade of "C" or better.
Description: The state-of-the-art of parallel and distributed systems. Design, implementation, and analysis of parallel and distributed system architectures, protocols, and algorithms. Resource management, scheduling, and coordination. Internet-scale systems, middleware and services, virtualization, and distributed operating systems. Parallel and distributed programming paradigms: message-passing, shared memory, data-intensive, high performance, high throughput. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6240 Advanced Topics in Computer Organization
Prerequisites: CS 5113 and CS 5253, each with a grade of "C" or better.
Description: Structure and organization of advanced computer systems, parallel and pipeline computers, methods of computation, alignment networks, conflict-free memories, and bounds on computation time. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6253 Advanced Topics in Computer Architecture
Prerequisites: CS 5253 or ECEN 5253, with a grade of "C" or better.
Description: Innovations in the architecture and organization of computers, with an emphasis on parallelism. Topics may include pipelining, multiprocessors, data flow, and reduction machines. Same course as ECEN 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6300 Advanced Topics in Programming Languages
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Interpreter models of programming language semantics, Vienna definition language, lambda calculus, LISP definition; Knuth semantic systems and their formulation, translational and denotational semantics. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6350 Advanced Topics in Operating Systems
Prerequisites: CS 5323 with a grade of "C" or better.
Description: Design and analysis of operating systems. Concurrent processes, server scheduling, models of auxiliary storage, memory management, virtual systems, and performance algorithms. May be repeated with a change in topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6400 Advanced Topics in Information Systems
Prerequisites: CS 5413 and CS 5423, each with a grade of "C" or better.
Description: Principles of distributed database systems. Overview of relational database management systems (DBMS) and computer networks, distributed DBMS architecture, distributed database design, distributed concurrency control, query processing and distributed DBMS reliability. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6500 Advanced Topics in Numerical Analysis
Prerequisites: MATH 5513 or CS 4513 with a grade of "C" or better, or MATH 4513 with a grade of "C" or better and consent of instructor.
Description: Systems of nonlinear equations, nonlinear least squares problems, iterative methods for large systems of linear equations, finite element methods, solution of partial differential equations. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6600 Advanced Topics in Analysis of Algorithms
Prerequisites: CS 5413 with a group of "C" or better.
Description: Analysis of various algorithms. Sorting, searching, computational complexity, lower bounds for algorithms; NP-hard and NP-complete problems; parallel algorithms; proof of correctness of algorithms. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6620 Advanced Topics in Applied Algorithms
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better, or consent of instructor.
Description: Recent advances in the design and analysis of data structures and algorithms for real-world applications in diverse problem domains. Problem domain designated for the course will differ in each offering and with instructor's interests. Core topics include mathematical modeling of complex applied problems, and studies of relevant fundamental algorithmic techniques and their experimental analysis on real datasets. Offered for 3 fixed credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6623 Algebraic Structures of Formal Grammars
Prerequisites: CS 5313 and CS 5653; all with a grade of "C" or better.
Description: Context-free languages, Kleene languages, Dyck languages, context-sensitive languages; use of algebraic systems to define languages; linear bounded automata.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6700 Advanced Topics in Artificial Intelligence
Prerequisites: CS 5793 with a grade of "C" or better, or consent of instructor.
Description: Machine learning; computer perception and robotics; logic programming; natural language understanding; intelligent agents; medical informatics. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6800 Advanced Topics in Computing Networks
Prerequisites: CS 5283 with a grade of "C" or better; Graduate standing in Computer Science; consent of instructor.
Description: Large scale embedded networks, deep-space networking, ubiquitous computing, optical networking, Next Generation Internet. May be repeated with change of topics. Offered for variable credit, 2-12 credit hours, maximum of 12 credit hours.
Credit hours: 2-12
Contact hours: Lecture: 2-12 Contact: 2-12
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

Construction Engineering Technology (CET)

CET 1213 Introduction to Construction
Description: Overview of the entire construction industry with emphasis on construction materials, methods and systems. Both building and heavy highway construction drawings and their interpretation. Previously offered as CMT 1213 and CMT 1214.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2003 Construction and Culture
Description: Analyzes the cultural context of construction internationally, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2203 Construction Drawings (for Non-Majors)
Description: Principles of graphic communication are applied to reading and drawing construction plans, with emphasis to fire protection systems. Does not meet CMT degree requirements. (Online course for non-CMT majors). Previously offered as CMT 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2253 Printreading & BIM
Prerequisites: Grade of "C" or better in MATH 1513 or ALEKS score greater or equal to 60 or permission of instructor.
Description: Principles of 2D and 3D graphic communication are applied to reading and drawing construction plans. Techniques for measuring items of construction work from plans and specifications are also covered. Previously offered as CMT 2253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2263 Estimating I
Prerequisites: Grade of “C” or better in CET 1213 and CET 2253, and ALEKS>56 or MATH 1513 with a grade of "C" or higher, or MATH 1613 with a "C" or higher, or MATH 1813 with a "C" or higher or MATH 2144 with a "C" or higher or permission of instructor.
Description: Quantity take-off with emphasis on excavation, formwork and concrete, masonry, rough carpentry and miscellaneous specialty items. Previously offered as CMT 2263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2333 Construction Practices and Procedures
Prerequisites: "C" or better in CET 1213.
Description: Light frame and commercial construction. Foundation layout, framing and finish work, site investigations, excavation, precast concrete, tilt up, structural steel and metal building construction and project management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2343 Concrete Technology
Prerequisites: Grade of “C” or better in (CET 1213 and CMT 1213) and (CMT 2353 or CET 2253) or permission of department.
Description: Fundamentals and practical application of concrete and concrete making materials including admixtures. Proportioning concrete mixtures. Batching, mixing, conveying, placing, finishing, and curing concrete. Hot and cold weather concreting, jointing, volume change and crack control. Previously offered as CMT 2343 and CMT 2351 and CMT 2352.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3163 Field Engineering Applications
Prerequisites: Grade of "C" or better in CET 2263 and ENSC 2113, or permission of department.
Description: Construction sequencing and methods and basic timber structural design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3213 Soft Skills for Effective Interpersonal Communication (S)
Description: A study of personal one-on-one communication skills to improve effective intrapersonal communication. The course also relates intrapersonal skills to successful teamwork and teambuilding and becoming and presenting the best version of yourself.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage
General Education and other Course Attributes: Society & Human Behavior

CET 3273 Scheduling Construction Projects
Prerequisites: Grade of "C" or better in CMT 2263, or CET 2263 or permission of department.
Description: Scheduling basics, including bar charts and critical-path methods; manual and computer techniques using current software; emphasis on using schedules for construction project management. Previously offered as CMT 3273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3322 Construction Practicum I
Prerequisites: Grade of "C" or better in (CMT 1213 and CET 1213) and (CMT 2253 or CET 2253), or permission of department.
Description: Supervised field experience in construction; 400 hours minimum documented time required. Previously offered as CMT 3331 and CMT 3322.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3323 Theory of Built Structures
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144) and (GENT 2323 or ENSC 2113) or permission of the department.
Description: The study of equilibrium of structural systems and stresses and strains that occur in structural members of the built environment. Previously offered as CMT 3323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3332 Construction Practicum II
Prerequisites: Grade of "C" or better in (CMT 2263 or CET 2263), (CMT 3322 or CET 3322) and CIVE 3614 or permission of department.
Description: Supervised temporary, full-time employment in construction, emphasizing field and office engineering and a variety of project management functions; 400 hours minimum documented time required. Previously offered as CMT 3332 and CMT 3333.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3364 Structures I
Prerequisites: Grade of "C" or better in (CMT 2343, CET 2343, or CMT 2351) and (CMT 3323, CET 3323 or GENT 3323 or ENSC 2143) and (MATH 2133 or MATH 2153) and (PHYS 1214 or PHYS 2114) and (CMT 3322 or CET 3322) and (CMT 3273 or CET 3273).
Description: Methods of structural analysis applicable to construction; design of timber structures and forms for concrete structures. Previously offered as CMT 3363 and CMT 3364.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3432 Principles of Site Development
Prerequisites: Grade of "C" or better in CET 2343 or ENSC 2113 or permission of department.
Description: Site layout, vertical and horizontal control, surveying instrument adjustments, site investigations, excavations, site drainage and geotechnical considerations. Previously offered as CET 3433, CMT 3433 and CMT 2333.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3443 Environmental Building Systems (Non-Majors)
Prerequisites: Grade of "C" or better in ENGR 1322 or CMT 2253 or ARCH 3263 and grade of "C" or better in (PHYS 1114 or PHYS 2014), or permission of department.
Description: An introductory level knowledge of plumbing, heating, air-conditioning, electrical and lighting systems as applied to construction and construction-related projects. May not be used for degree credit with CET 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3463 Environmental Building Systems
Prerequisites: Grade of "C" or better in CET 2253 or CMT 2253 and (PHYS 1214 or PHYS 2114) or permission of department.
Description: Plumbing, heating, air-conditioning, electrical and lighting systems as applied to residences and commercial buildings. Previously offered as CMT 3463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3554 Structures II
Prerequisites: Grade of "C" or better in (CET 3364 or CMT 3364).
Description: Analysis and design of elements in steel and reinforced concrete structures; review of shop drawings for both types of construction. Previously offered as CMT 3553 and CMT 3554.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 4050 Advanced Construction Management Problems
Description: Special problems in construction management. Previously offered as as CMT 4050. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

CET 4103 Integrated Project Delivery Methods
Description: An introduction to contract delivery methods for construction projects from the perspective of Designers, Owners, and Builders. Best value selection is used as a tool to illustrate all perspectives for project management. Professional, ethical, and social responsibilities are presented through the perspectives of sustainability and lean bespoke manufacturing methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4133 CAD and BIM for Construction Managers
Prerequisites: Grade of "C" or better in (CMT 1213 or CET 1213) and (CMT 2253 or CET 2253).
Description: Interpretation and production of construction drawings using computer aided drafting. Theory and use of Building Information Modeling software builds upon computer aided drafting skills. Previously offered as CMT 3633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4263 Estimating II
Prerequisites: Grade of "C" or better in EET 1003, (CMT 2263 or CET 2263) and concurrent enrollment or grade of "C" or better in GENT 2323 or ENSC 2113; or permission of department.
Description: Extensive use of actual contract documents for quantity take-off, pricing and assembling the bid for several projects. Use of computers in estimating. Previously offered as CMT 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4273 Technology in Construction
Prerequisites: Grade of "C" or better in (CMT 3273 or CET 3273) and (CMT 4263 or CET 4263).
Description: Applications of various technologies including software for construction. Previously offered as CMT 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4283 Business Practices for Construction
Prerequisites: Grade of "C" or better in ACCT 2003, ACCT 2103, (CMT 3273 or CET 3273) and (CMT 4563 or CET 4563) or permission of department.
Description: Principles of management applied to construction contracting; organizing office and field staff; bonding, liens, financial management practices; introduction to the construction manager concept; schedule of values; construction billings. Previously offered as CMT 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4293 Construction Manager Concepts
Prerequisites: Grade of "C" or better in CET 3163 and CET 4283 or permission of department.
Description: Capstone course utilizing skills and knowledge of estimating, scheduling, bidding, construction management, CAD, TQM, partnering and safety; includes topics in leadership, motivation and the use of current project management software. Previously offered as CMT 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4333 Equipment Management for Constructors
Prerequisites: Grade of "C" or higher in (CMT 2263 or CET 2263), (CMT 2343 or CET 2343) and (ACCT 2003 or ACCT 2103) or permission of department.
Description: Selection and use of equipment, estimating equipment costs, estimating equipment production rates for all types of equipment used in building construction and heavy/highway construction. Previously offered as CMT 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4443 Construction Safety and Loss Control
Prerequisites: Grade of "C" or better in (CMT 2253 or CET 2253) and (CMT 4263 or CET 4263) or permission of department.
Description: A detailed study of OSHA Part 1926 - Construction Safety and Health Compliance and related safety topics including topics related to the OSHA 30-hour training program; concepts and methods of loss control. Previously offered as CMT 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4533 Heavy Civil Construction and Estimating
Prerequisites: Grade of "C" or better in (CMT 2263 or CET 2263) and (CMT 2343 or CET 2343 or CMT 2351) or permission of department.
Description: Theory and application of contractor estimating and bidding procedures used in heavy and highway construction projects. Previously offered as CMT 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4553 Structural Steel Design & Connections
Prerequisites: Grade of "C" or better in CET 3163 and ENSC 2143 or permission of department.
Description: Analysis and design of steel beams and columns, bolted and welded connections, and rigging applications. May not be used for degree credit with CET 3554.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 4563 Construction Law and Insurance
Prerequisites: A grade of "C" or better in (CMT 2263 or CET 2263) and SPCH 2713 and acceptance to the CMT Upper Division or permission of the department.
Description: Legal and insurance problems as they pertain to the construction industry. Previously offered as CMT 4563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4663 Concrete Design & Formwork
Prerequisites: Grade of "C" or better in CET 3163 and ENSC 2143 or permission of department.
Description: Analysis and design of cast in place concrete with concrete formwork applications. May not be used for degree credit with CET 3364 and CET 3554.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

Counseling Psychology (CPSY)

CPSY 1113 Career: Journey of A Lifetime
Description: Assists students in exploring career options through increased understanding of self and expanded knowledge of occupational information. Includes a study of the decision-making process and a look at the present and future changing world of work. Previously offered as CPSY 1112 and ABSE 1112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3003 Introduction to Counseling and Related Professions
Description: Professions related to counseling such as career counseling, community mental health counseling, school counseling, and substance abuse counseling are examined. Students will also learn about diversity and legal and ethical issues within counseling professions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3013 Introduction to Helping Skills
Prerequisites: Upper division standing and successful completion of CPSY 3003.
Description: This course serves as a general overview of applied helping skills for those who are considering the counseling profession or related professions as a career. Students will learn major counseling theories and will practice basic helping skills. Instructional methods will include lecture, small-group interaction, discussion, and role plays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3023 Mental Health in Schools and the Community
Description: An introduction to mental health issues in school and community settings for education or other helping profession majors. Students will learn about topics such as signs of depression; substance abuse; anxiety, including test anxiety; crisis prevention and response; suicidality and violence in schools; bullying; domestic violence; and cyber-citizenship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3320 Seminar in Counseling Psychology
Description: In-depth exploration of contemporary topics in counseling psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 4013 Field Experience in Counseling
Prerequisites: CPSY 3003 and CPSY 3013.
Description: A senior capstone/field experience for students considering graduate work in counseling psychology, school counseling, community counseling, or a counseling-related profession. The field experience provides students with the opportunity to apply the skills, knowledge, and techniques in an applied setting. Students can expect to gain an understanding of the philosophy, organization, and tasks of their field site to assist in guiding their decision for a future career path.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 4443 Cultural Diversity in Professional Life (D)
Description: Knowledge, awareness and skills regarding cultural diversity in one's professional life. Previously offered as EDUC 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

CPSY 5000 Master's Thesis
Description: Consent of advisory committee chairperson. Report of research conducted by a student in the master's program in counseling. Credit given and grade assigned upon completion and acceptance of the thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5173 Gerontological Counseling
Description: An examination of mental health treatment modalities and approaches to counseling with older adults. An experiential component is included. Previously offered as ABSE 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5320 Seminar in Counseling Psychology
Description: Graduate standing. In-depth exploration of contemporary topics in counseling psychology. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5323 Relational Cultural Theory
Description: The goal of this course is to gain an understanding of the theoretical foundation of the Relational Cultural Model of psychotherapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5413 Child and Adolescent Counseling
Description: Counseling theories and techniques for working with children, adolescents, and their parents in individual and group counseling and consulting. Laboratory portion translates theory to practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5423 Crisis Intervention, Disaster Mental Health, and Trauma Counseling
Description: Prepares counselors, educators, and administrators to address the crisis/disaster situations which may arise in schools, colleges, and community mental health settings. Preparation includes what sort of events constitute a crisis, prevention efforts, preparedness, and crisis/disaster intervention strategies. Basics of trauma, and trauma counseling for counselors working in individual and group settings are covered for schools and community mental health settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5433 Expressive Arts in Counseling
Description: Provides graduate students in counseling with an opportunity to learn the history, theoretical foundations, and practice of expressive arts in counseling. This course will be held in a seminar format with an experiential component and an emphasis on class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5453 Vocational and Career Information
Description: Local, state and national sources of occupational information about jobs and sociological factors related to career planning and worker effectiveness. Previously offered as ABSE 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5473 Basic Counseling Skills
Prerequisites: Graduate standing.
Description: Basic attending and relationship building skills needed to develop an effective therapeutic relationship, establish counseling goals, and evaluate client outcomes. Previously offered as ABSE 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5483 Mental Health Counseling
Description: Base of knowledge about the counseling profession, its history, philosophy, and identity. The roles and responsibilities of the professional counselor as therapist and advocate in working competently with culturally diverse populations in a socially and culturally diverse society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5493 Professional and Ethical Issues in Counseling
Prerequisites: Admission to community counseling, elementary or secondary school counseling graduate program or consent of instructor.
Description: Principles and issues of professionalism and ethics. Seminar format with special emphasis on student's thorough preparation for, and active participation in, class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5503 Multicultural Counseling
Description: Emphasis on effective communication skills in cross-cultural counseling or helping relationships and the integration of theoretical knowledge with experimental learning. Psycho-social factors, life styles, etc. of various cultural and ethnic groups and their influence on the helping relationship. Previously offered as ABSE 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5513 Comprehensive School Counseling Programs
Description: Foundations of school counseling focusing on the knowledge and skills required to develop, implement, coordinate, and manage a comprehensive, developmental school counseling program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5523 Assessment in Counseling
Description: An introductory study of the psychological assessments most widely used in the fields of school and clinical counseling. Previously offered as ABSE 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5533 Foundations of Play Therapy
Prerequisites: CPSY 5473.
Description: Overview of essential play therapy elements and principles, including history, theories and techniques, and modalities. Emphasis on observation and application of play therapy skills and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5543 Career Development Theories
Description: Historical and contemporary viewpoints advanced by Ginsberg, Super, Holland, Roe, etc. Counselors are assisted in developing the theoretical and applied basis for developing school-based career education programs and for assisting individuals in career planning. Previously offered as ABSE 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5553 Theories of Counseling
Description: Exploration of the foundations of major individual counseling theoretical approaches with opportunities for personal reflection and application. Previously offered as ABSE 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5563 Conceptualization and Diagnosis in Counseling
Description: Conceptualization and diagnosis through a study of principles of understanding dysfunction in human behavior or social disorganization and provides an in-depth knowledge of use of the DSM classification system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5583 Group Process
Description: Group dynamics, theory and techniques applicable to working with people of all ages in various school and non-school settings. Group member competencies are stressed during the laboratory period. Previously offered as ABSE 5583.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Health Sci, Couns, Couns Psych

CPSY 5593 Counseling Practicum
Prerequisites: Grade of "B" or better in CPSY 5473, CPSY 5493, CPSY 5553, CPSY 5563, and CPSY 5583; admission to program or instructor consent.
Description: Supervised experience in human interaction processes of counseling and consulting with the major goal of facilitating positive growth processes through individual supervision. May be conducted in a variety of settings with a wide range of developmental levels. Previously offered as ABSE 5590.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5663 Counseling And Sexuality
Prerequisites: Permission of instructor.
Description: Current trends in counseling clients with sexual problems, as well as clients with varying sexual orientations and identities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5673 Substance Abuse Counseling
Prerequisites: Permission of instructor.
Description: Current therapeutic trends, strategies, and modalities used in the treatment of addictions, as well as relapse prevention strategies and treatment of special populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5683 Internship In Counseling I
Prerequisites: Grade of "B" or better in CPSY 5593 and admission to counseling program.
Description: Supervised experience working and studying in a counseling agency or setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5693 Internship In Counseling II
Prerequisites: Grade of "B" or better in CPSY 5683 and admission to counseling program.
Description: Supervised experience working and studying in a counseling agency or setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5720 Workshop
Description: Professional workshops on various topics. Designed to meet unique or special needs of professionals in various mental health fields. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5773 Substance Abuse Counseling Theories
Description: Introduction to contemporary theories of addiction for advanced counseling, counseling psychology and related professional graduate students and for practicing mental health professionals. Content includes multicultural case studies utilizing motivational interviewing, moral theory, developmental theory, cognitive behavioral theories, attachment theory, and sociological theory. The focus is understanding theories related to addiction and relapse prevention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5783 Substance Abuse Psychopharmacology
Description: This course covers the major areas of psychopharmacology, including the basic principles of pharmacology, neuroanatomy and neurotransmitter systems, and the properties, actions, and effects of different types of drugs. Students will learn how drugs alter psychological processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5793 Substance Abuse Counseling Internship
Description: A 300-hour field experience allows students to develop specific skills and knowledge surrounding the practice of substance abuse counseling under the direction of a clinical supervisor. Students will be able to apply learning theory and techniques in counseling situations; develop case management and resource allocation skills; determine appropriate assessments of clients; network with supervisors, colleagues, and professionals from a variety of agencies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the doctoral program in counseling psychology. Credit given and grade assigned upon completion and acceptance of the doctoral dissertation. Offered for variable credit, 1-9 credit hours, maximum of 25 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6053 Ethical and Legal Issues in Professional Psychology
Prerequisites: Consent of instructor.
Description: Ethical and legal standards applied to the professional practice of psychology. Previously offered as CPSY 6503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6083 Principles of Counseling Psychology
Prerequisites: Admission to the doctoral program in counseling psychology.
Description: Development, theoretical foundations and applications of therapeutic models of counseling and psychology. Previously offered as ABSE 6083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6123 Adult Personality Assessment
Prerequisites: Admission to counseling, school, or clinical psychology program.
Description: Administration and interpretation of adult personality assessment instruments such as Rorschach, TAT and DAP. Previously offered as ABSE 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6153 Personality Theories
Prerequisites: Graduate standing.
Description: An in-depth analysis of personality theories and personality disorders. Previously offered as ABSE 6153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6163 Advanced Counseling Theories and Interventions
Prerequisites: Grade of "B" or better in CPSY 5553 (Theories) or other Master's level Theories course.
Description: Continued exploration of major individual counseling theoretical approaches with a particular focus on third-wave, experiential approaches. Provides intensive practice in both technical and conceptual skills with emphasis on self- awareness, case conceptualization, and racial-cultural considerations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6223 Beck's Cognitive Therapy
Prerequisites: Graduate standing in counseling, counseling psychology, school psychology, or clinical psychology; or consent of instructor.
Description: The theory and practice of Aaron T. Beck's cognitive therapy approach. Cognitive restructuring, problem-solving, imagery work, and cognitive case conceptualization skills to help clients with a variety of presenting problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6310 Advanced Practicum and Supervision
Prerequisites: Admission to counseling psychology program.
Description: For prospective counseling psychologists, counselor educators and supervisors, and practicing counselors. Supervised assistance in development of counseling, consulting, and supervising competencies. Previously offered as ABSE 6310. Offered for variable credit, 3-12 credit hours, maximum of 12 credit hours.
Credit hours: 3-12
Contact hours: Contact: 3-12 Other: 3-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6313 Advanced Group Interventions
Prerequisites: Admission to counseling psychology program or consent of instructor.
Description: Discussion and exploration of various aspects of group development and treatment. Theory and application of theory. Various factors associated with group psychotherapy cohesion, dynamics and screening. Course previously offered as ABSE 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6323 Psychological Consultation
Prerequisites: Admission to graduate program in the SAHEP or psychology program.
Description: Models and strategies for the delivery of special services in the schools and other agencies that focus on serving the mental health needs of children, adolescents and adults. The use of consultation as a problem-solving alternative to the assessment/label approach. Students can receive credit in only one of the courses. Same course as EPSY 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6413 Counseling Psychology Practicum I
Prerequisites: Admission to the doctoral program in counseling psychology.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Establishing therapeutic conditions conducive to growth and change.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6423 Counseling Psychology Practicum II
Prerequisites: Grade of "B" or better in CPSY 6413.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Integrating theory and research into the practice of counseling psychology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6433 Counseling Psychology Practicum III
Prerequisites: Grade of "B" or better in CPSY 6423.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Integrating theory and psychological assessment skills into the practice of counseling psychology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6443 Counseling Psychology Practicum IV
Prerequisites: Grade of "B" or better in CPSY 6433.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Building integrating consultation skills into the practice of counseling psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6543 Clinical Supervision
Prerequisites: Admission to clinical, counseling or school psychology doctoral program, or consent of instructor.
Description: Building the doctoral psychology student's knowledge base in theory and research of clinical supervision in psychology, and development and refinement of the student's supervision skills. Current theory and research in supervision, including a practical component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6553 Advanced Practice in Marital and Family Treatment
Prerequisites: Admission to counseling, school or clinical psychology program.
Description: Advanced methods in assessment, diagnosis, and treatment of marital and family problems. Skill development, professionalism, ethics and case management. Dynamics of co-therapy and conjoint treatment. Case consultation format. Course previously offered as ABSE 6553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6560 Advanced Internship in Counseling
Description: Admission to the doctoral program in psychology. Designed to facilitate counseling effectiveness and to set the stage for a productive life of professional practice. Previously offered as ABSE 6560. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6850 Directed Reading
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

Curriculum & Instruction Ed (CIED)

CIED 1230 Reading and Study Skills for College Students
Description: Instruction and laboratory experience for the improvement of reading rate, vocabulary, comprehension, and study skills. Graded on pass-fail basis. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 2453 Introduction to Teaching and Learning
Prerequisites: Declaration of intention to pursue a program in Professional Education.
Description: Overview of teaching and learning in the 21st century so that students understand the foundations of education and basic pedagogy. This course includes the initial pre-professional clinical experience in schools, first through eighth grades. Required for full admission to Professional Education. Previously offered as CIED 2450.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 3005 Foundations of Literacy
Prerequisites: ENGL 1113, ENGL 1213, ENGL 2413.
Description: Survey of evaluation, selection and utilization of literature of childhood; introduces cognitive and linguistics foundations of literacy; language conventions needed to compose and comprehend oral and written texts. Work in school setting.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3133 Children's Literature Across the Curriculum
Description: Critical, analytical and instructional skills for teaching with culturally diverse literature for elementary and middle school learners. Integration of literature across the curriculum to develop critical thinking, social literacy, and inquiry skills. Previously offered as CIED 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3253 Teaching Language Arts in the Elementary and Middle School
Prerequisites: ENGL 1113 and ENGL 1213 and ENGL 2413.
Description: Learning theory, content, and methods related to teaching spoken, written, and visual forms of communication. Focus is on listening, speaking, writing and on teaching knowledge, skills and strategies inherent in those processes. Stresses integration of central literacy components (reading, writing, speaking, listening to, and viewing a wide range of texts in a variety of forms) and across the curriculum, teaching diverse learners and perspectives, inquiry, and critical literacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3293 Teaching Reading in the Elementary and Middle School
Prerequisites: ENGL 1113 and ENGL 1213 and ENGL 2413.
Description: Learning theory, content and methods specifically related to teaching children to read a wide range of texts for a wide range of purposes. Understandings of central reading components such as print awareness, phonological/phonemic awareness, phonics, fluency, vocabulary, comprehension, and critical literacy. Best practices for teaching reading effectively for diverse learners with varied needs and interests. Includes program phonics exam.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3313 Field Experience in the Secondary Schools
Prerequisites: Consent of instructor, 2.50 GPA, and passing scores on the Oklahoma General Education Test.
Description: Seminars, directed observation and participation in a particular subject area of the secondary/K-12 school. Experience in meeting the mental, social, physical, and cultural needs among children. Previously offered as CIED 3712.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 3622 Middle Level Education
Prerequisites: CIED 2453.
Description: Overview of the nature of young adolescents as well as an examination of the curriculum, instruction, and organization of middle grade schools. Also includes a field-based experience in a middle school. Previously offered as CIED 3623.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 3753 Teaching Social Studies through Inquiry
Prerequisites: Completion of CIED 3313 or consent of instructor.
Description: This course is designed to develop pre-service teachers' skills to teach social studies through an inquiry approach. Guided readings, discussions, group activities, and project based learning will focus on structuring an inquiry-based secondary classroom through the use of primary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4000 Field Studies in Education
Description: Independent study and/or field experiences, such as spending a semester in an experimental program working with handicapped children in schools, in-depth studies in research projects, internships with school personnel. Graded on a pass-fail basis. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4005 Literacy Assessment and Instruction
Prerequisites: CIED 3005 or HDFS 3213.
Description: Provides a comprehensive survey of teaching strategies, formal and informal assessment, curriculum materials, theory, and research pertaining to reading, writing, spelling and oral language development at the primary and elementary school levels. Practical experiences required.
Credit hours: 5
Contact hours: Lecture: 4 Lab: 2 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4012 Integration of Literacy
Prerequisites: CIED 4005; full admission to Professional Education.
Description: Integration of reading, writing, and oral language; integration of literacy instruction into the content areas in elementary school curriculum.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4041 Interdisciplinary Curriculum Design and Development
Prerequisites: Full admission to Professional Education and concurrent enrollment in 3430, 4012, 4153, 4323, 4353, and 4362.
Description: Planning and development of interdisciplinary teaching units for the elementary school classroom. Pedagogical approaches and materials for teaching integrated themes, as well as research on effective integrated teaching practices.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 4073 Elementary School Curriculum Design and Development
Prerequisites: Full admission to Professional Education.
Description: Students will understand and learn to apply the foundations of elementary curriculum, the processes of designing curriculum for elementary classrooms, the analysis of instructional practices, and the data driven decision making to improve student learning. May not be used for degree credit with CIED 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4093 Teaching Grammar in the Secondary Schools
Prerequisites: ENGL 4013 (or concurrent enrollment) or instructor permission is required.
Description: Inductive teaching of grammar and usage for writing and oral communication. Lessons include learning to teach literary devices, poetic nomenclature, etymology of idiomatic expressions, and such linguistic elements as homonyms, synonyms, and antonyms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4103 Introduction to English Learners for Early Childhood and Elementary Teachers
Description: This course facilitates prospective early childhood and elementary education teachers' learning about how to educate English Learners in their classes, schools, and communities. Taking a comprehensive, learner-centered approach to research, theory, policy, and practice, topics covered include current trends, pedagogical strategies, and instructional theories related to English Learners in early childhood and elementary schools. May not be used for degree credit with CIED 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4133 Introduction to K-12 English Language Learners
Description: This course facilitates prospective teachers' learning about how to educate English Language Learners in their classes, schools, and communities. Taking a comprehensive, learner-centered approach to research, theory, policy, and practice, topics covered include current trends, pedagogical strategies, and instructional theories related to English Language Learners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4194 Teaching Writing in the Secondary School
Prerequisites: ENGL 1113, ENGL 1213, ENGL 3203, all with grade of "B" or better; ENGL 4013 or concurrent or with instructor permission.
Description: Teaching secondary writing inductively in order to build on future students' reasoning skills ultimately leading to cogent, cohesive, audience-appropriate multimodal composition. Previously offered as CIED 4193.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4213 Introduction to Visual Arts in the Curriculum
Description: Provides an understanding of the theoretical basis for the use of art activities in developing sensory perception and aesthetic sensitivity as an integral part of the curriculum. Includes a wide range of opportunities for student involvement in experimentation and exploration with a variety of two- and three-dimensional art media. Emphasis on both creative expression and appreciation of the visual arts in the home, school and community as a vital aspect of instruction in the school, preschool level through grade eight. May not be used for degree credit with CIED 5350.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4233 Literacy Assessment and Instruction
Prerequisites: CIED 3293 and CIED 3253.
Description: Selection, administration, and interpretation of a variety of formal and informal literacy assessments. Use of assessment results to plan, evaluate, and revise effective instruction for diverse learners within an assessment/evaluation/instruction cycle. Tutoring practicum is required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4243 Creativity and Critical Thinking in the K12 Classroom
Description: Preparation of teachers as facilitating critical thinking and creativity opportunities for elementary and secondary students. Skills in cross-curricular content integration, the elements and processes of appreciation and creation of multiple forms of art (performing, visual, digital, media, et. al) and pedagogical approaches to critical thinking competencies. May not be used for degree credit with CIED 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4263 Teaching and Learning Foreign Languages in the Elementary Schools (Grades 1-8)
Description: Purpose, selection and organization of foreign language curriculum content, teaching and learning theories, and procedure and evaluation of outcome for diverse students. Teaching techniques and materials for grades 1-8. May not be used for degree credit with CIED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4313 Young Adult Literature
Prerequisites: Senior or Graduate level standing.
Description: Survey of print and non-print materials, including multicultural and multi-ethnic materials for young adults from middle school through high school. History, criticism, selection, and evaluation of young adult literature and exploration of its relation to the needs and interests of young people. May not be used for degree credit with CIED 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4323 Social Studies in the Elementary School Curriculum
Prerequisites: Full admission to Professional Education.
Description: Purposes, selection and organization of content, teaching and learning procedures, and evaluation of outcomes in elementary social studies. May not be used for degree credit with CIED 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4373 Classroom Environments and Experience
Description: Introduction to the design and management of the physical, social, intellectual aspects of the elementary classroom. Overview of the purposes, selection and organization of classroom management systems and teaching approaches. Directed observation and participation in classrooms. Previously offered as CIED 4362. May not be used for degree credit with CIED 5363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4450 Internship in Elementary Education
Prerequisites: Concurrent enrollment in CIED 4453 or CIED 4720 and CIED 4730, successfully pass the subject area test, and full admission to Professional Education.
Description: Advanced clinical experience as associate (student) teacher in schools, pre-kindergarten through grade eight. Graded on a pass-fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4453 Senior Seminar in Elementary Education
Prerequisites: Concurrent enrollment in CIED 4450 and full admission to Professional Education.
Description: Legal and ethical issues, forms of assessment, including standardized testing, working with colleagues and other professionals, integration of performing arts including music and drama, and completion of a professional portfolio. Taken concurrently with student teaching in the final semester of the elementary education program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4463 Senior Seminar: Learning and Teaching in Diverse School Cultures
Prerequisites: Senior classification; full admission to Professional Education and concurrent enrollment in CIED 4450.
Description: Designing elementary classroom environments and curriculum that meet the needs of diverse populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4473 Reading for the Secondary Teacher
Prerequisites: Consent of instructor, 2.50 GPA, and passing scores on the Oklahoma General Education Test.
Description: Materials and procedures in the teaching of reading in secondary schools for content area teachers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4713 Teaching and Learning in the Secondary School
Prerequisites: Full admission to Professional Education and consent of instructor.
Description: Purposes, selection and organization of curriculum content, teaching and learning theories and procedures, and evaluation of outcomes for diverse students. Teaching techniques and materials for art, English, foreign languages, science, and the social studies. This course MUST be taken the semester prior to student teaching/internship. May not be used for degree credit with CIED 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4720 Internship in the Secondary Classroom
Prerequisites: CIED 4713, CIED 4724 or CIED 4734 or CIED 4744, full admission to Professional Education and successfully passing the subject area test in the content area of Internship.
Description: Supervised observation and student teaching in fields in which the student intends to qualify for teaching certification. Development of awareness of and experience with mental, social, physical and cultural differences among adolescents. Graded on a pass-fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4724 Classroom Management in the Multicultural PK-12/ Secondary School
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Course previously offered as CIED 4723. May not be used for degree credit with CIED 5724.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 4734 Planning and Management in the Multicultural Foreign Language K-12 Classroom
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4744 Planning and Management in the Multicultural Art K-12 Classroom
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Previously offered as CIED 4730.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4813 Second Language Acquisition Research and Pedagogy
Description: The overall focus of this course is on introduction to theory, research, and practice in the fields of first and second language acquisition; understanding of language acquisition at various developmental levels, both within and outside of the classroom; and application of language acquisition theories to instructional practice. May not be used for degree credit with CIED 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4823 Foreign Language Instruction, Curriculum, and Assessment: Grades PK-12
Prerequisites: CIED 4813.
Description: History of foreign language education and teaching; understanding the role of foreign language in PK-12 programs; application of national and state foreign language learning standards in instructional planning; application of approaches, methods, strategies, and techniques of foreign language teaching; utilization of assessment tools to obtain information about foreign language learners' learning; and selection, evaluation, development, and modification of foreign language curricula. May not be used for degree credit with CIED 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5000 Master's Report or Thesis
Prerequisites: Consent of adviser.
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5010 Practicum for Early Career Secondary Teachers
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Facilitated mentoring support for performing professional functions in classroom settings for early career teachers. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5033 Teaching Foreign Languages in the Schools K-12
Description: Curriculum, materials, methods and procedures related to foreign languages (grades K-12).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5043 Issues in Teaching
Description: Current issues and trends in teaching theory, practice and research with emphasis on teacher reflection.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5053 Curriculum Issues
Description: A study of curriculum that includes philosophy, history, decision-making, major concepts and terms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5073 Pedagogical Research
Description: Theory and application of pedagogical inquiry with emphasis on teacher as researcher, pedagogical question posing, and techniques of pedagogical inquiry, including narrative, autobiography, case writing, action research, and artifactual documentation of teacher performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5093 Curriculum Design
Description: The theorizing and practical development of course and curriculum design. Focus on learning sciences, social implications, and interpreting student goals through state and national standards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5123 Curriculum in the Secondary School
Description: Contemporary curricular issues, philosophies, and points of view in secondary school education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5143 Language Arts in the Curriculum
Description: Content and current issues in the language arts. Materials and methods for teaching the communication skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5153 Advanced Studies in Children's Literature
Description: Study of children's literature within the prevailing political, economic and social factors influencing cultural patterns and values. The tools of research in children's literature and the nature and direction of contemporary children's book publishing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5173 Kindergarten-Primary Curriculum
Description: Study of kindergarten-primary curriculum, including philosophy, history, current practice, and issues. For administrators, teachers and students in curriculum and early childhood education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5183 Media Literacy Across the Curriculum
Description: Examination of the history of media literacy. Major topics and issues in the field of media literacy and curriculum in media literacy across subject areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5203 Foundations of Literacy Education 1-8
Description: Major literacy theories, content, and pedagogy with a required 45-hour field experience. For graduate students seeking initial certification in elementary education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5213 Introduction to Teaching and Learning
Prerequisites: Admission to the MAT program.
Description: Overview of teaching and learning in the 21st Century. Requires field experience in PK-12 Classrooms.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 5303 Teaching and Learning Foreign Languages in the Elementary Schools (Grades 1-8)
Description: Purpose, selection and organization of foreign language curriculum content, teaching and learning theories, and procedure and evaluation of outcome for diverse students. Teaching techniques and materials for grades 1-8. May not be used for degree credit with CIED 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5310 Field Experience in the Elementary School
Description: Directed observation and participation in classrooms, First through grade eight. Concurrent seminar exploring multicultural education and integrated programs. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours. Corequisite(s): CIED 4362; full admission to Professional Education.
Credit hours: 1-2
Contact hours: Lab: 3-6 Contact: 3-6
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5313 Curriculum of the Elementary School
Description: Contemporary trends, philosophies and points of view in elementary school education. Previously offered as CIED 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5323 Teaching Social Studies in the Schools
Description: Curriculum, materials, methods, and procedures related to social studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5333 Effective Classroom Management for Secondary Schools
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines classroom management, classroom discipline, and education issues of immediate concern (culturally responsive pedagogy, social justice, anti-bias applications, and using diverse technologies in the secondary classroom) for novice teachers. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5343 Introduction to K-12 English Language Learners
Description: Pedagogical strategies and instructional theories related to English Language Learners and culturally diverse students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5350 The Visual Arts in the Curriculum
Description: Creative approaches to the use of two- and three-dimensional media as they relate to various aspects of education. Opportunities available for periodic group and individual evaluation in order to give direction and significance to future growth. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5353 Literature for Children, Adolescents and Adults
Description: Exploration of the elements and characteristics of quality literature for readers of all ages, addressing evaluation, selection, and utilization. Research component requiring learners to design and conduct relevant research into literature learning and engagement with selected populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5363 Effective Teaching Strategies for the 6-12 Classroom
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Includes a study of effective instructional practices and assessment in the 6-12 classroom. Topics will include but not be limited to: research-based models of instruction, teacher questioning, facilitating classroom discussions, lesson planning, assessment, differentiated instruction, culturally responsive pedagogy, and teaching culturally and linguistically diverse learners. Course is required as part of the graduate certificate program for Effective Teaching in the Secondary Schools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5373 Design and Management of the Elementary School Classroom
Description: Introduction to the design and management of the physical, social, and intellectual aspects of the elementary classroom. Overview of the purposes, selection and organization or applicable classroom management systems and teaching approaches. May not be used for degree credit with CIED 4362. Previously offered as CIED 5362.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5403 Teaching and Learning in the Secondary Schools: English Language Arts Methods
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in Secondary English Language Arts. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5413 Teaching and Learning in the Secondary Schools: Social Studies Methods
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in Secondary Social Studies Education. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5423 Literacy Instruction in Primary Grades
Description: Analysis of growth in literacy from the preschool level through early elementary years. Examination of literacy learning processes and instructional procedures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5433 Reading and Writing in the Content Areas
Description: Study of the development and use of reading and writing across the content areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5443 Teaching Reading with Literature
Description: Teaching reading comprehension strategies through the use of children's literature. Designed to prepare library media specialists and other literacy educators to explicitly teach comprehension strategies to PK-12 students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5450 Internship in Elementary Education
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Clinical internship for teacher candidates in schools. Concurrent seminar on educational policy, legal, and curriculum development issues. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5453 Infusing Aesthetics Across the Curriculum
Description: Teachers enliven curriculum by cultivating students' aesthetic sensibilities across all disciplines. Historically, the field of Aesthetics has been concerned with notions of beauty, ugliness, contemplation, criticism, and elegance among others. Within Curriculum Studies, developing aesthetic awareness also involves engaging all of the senses in the teaching and learning process, approaching curriculum as embodied and holistic, stimulating imagination, and fostering enthusiasm for learning. Historical development of the field of aesthetics and its impact.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5463 Practicum I: Literacy Assessment and Instruction
Prerequisites: CIED 5423 and CIED 5143 or consent of instructor.
Description: Development of knowledge of reading, writing, and language assessment and instruction for K-12 students. 11 hours of supervised field experience for authentic literacy assessment, evaluation, and tutoring, plus 10-15 hours of targeted lesson planning outside of class meetings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5473 Reading & Writing Difficulties
Description: Study of research and formal assessment tools related to reading and writing difficulties in children and adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5483 Literacy and Technology Across the Curriculum
Description: The characteristics of computer-facilitated learning relating to broad definitions of literacy. Use of a variety of computer and literacy tools across the curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5493 Multisensory Phonics Instruction
Description: This course provides in-depth content specifically focused on evidence-based instruction in phonemic awareness, systematic and explicit phonics, and spelling. The course supports teachers and reading specialists who work with students with dyslexia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5513 Young Adult Literature
Description: Survey of print and non-print materials, including multicultural and multi-ethnic materials for young adults from middle school through high school. History, criticism, selection, and evaluation of young adult literature and exploration of its relation to the needs and interests of young people. May not be used for degree credit with CIED 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5523 Practicum II: Advanced Literacy Interventions
Prerequisites: CIED 5463 or consent of instructor.
Description: Assessment, evaluation, and targeted instruction in reading and writing for K-12 students who experience difficulty learning literacy processes. Collaboration among teachers, literacy coaches, and resource personnel. Includes 11 hours of supervised practicum focused on small group intervention instruction. Previously offered as CIED 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5553 Literacy Leadership and Coaching
Prerequisites: CIED 5463.
Description: Develops skills and knowledge for school literacy program design and leadership, and for coaching other teaching professionals in literacy teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5573 Using Assessment to Understand Early Readers in Reading Recovery
Description: Focus on the administration and interpretation of Marie Clay's An Observation Survey of Early Literacy Achievement and intervention procedures that will support the beginning reader for whom reading and writing does not come easily. Graduate students will teach four children while learning Reading Recovery procedures. In addition, graduate students will observe children and teachers interacting behind a one-way glass.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5583 Responsive [Reading Recovery] Teaching to Accelerate Early Reading Progress
Description: Focus on the refinement of the Reading Recovery procedures used with beginning readers for whom learning to read and write does not come easily. Attention will be directed to teacher decision-making while working with four children. All enrolled in the course will be involved in teaching and observing children behind a one-way glass.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5623 Multicultural and Diversity Issues in Curriculum
Description: Understanding of the historical and contemporary perspectives toward cultural diversity. Development of an awareness of diverse culture and language communities; understanding of critical issues of race, class, gender, and ethnicity in education; perennial issues of multiculturalism in public education and in global society; a comprehensive overview of principles and current research on bilingual and multicultural education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5640 Special Topics in Literacy Education
Description: Topics vary to address special topics in literacy education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5643 Integrating Teaching at the Elementary Level
Description: Study and analysis of theories related to children's learning and implications for integrating teaching at the elementary level. Examination of teachers, own practices through reflection and research, study diverse populations, share teaching approaches and materials across the curriculum, and explore outreach to school, family and community.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5663 Integrating Teaching in the Secondary School
Description: In-service for middle to secondary teachers especially with professional development in their own school settings and in further graduate work. Examination of own practices through reflection and research, study of diverse adolescents, sharing of teaching approaches and materials across the curriculum, and exploration of outreach to school, family and community. Teacher leadership. Previously offered as CIED 5664.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5710 Internship in Secondary School
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Advanced clinical experience for teacher candidates (student teacher) in secondary schools. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5713 Teaching and Learning in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Purposes, selection and organization of curriculum content, teaching and learning theories and procedures, and evaluation of outcomes for diverse students. Teaching techniques and materials for art, English, foreign languages, science, and the social studies. This course MUST be taken the semester prior to student teaching/internship. May not be used for degree credit with CIED 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5720 Education Workshop
Description: For teachers, principals, superintendents and supervisors who need advanced curriculum and instruction course work related to K-12 subject areas and pedagogy, in the areas of instruction and administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5723 Gender and Curriculum
Description: An overview of gender issues in curriculum theory and practice. Understanding of historical and contemporary perspectives on gender in the context of schooling, pedagogy, and education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5724 Classroom Management in the Multicultural PK-12/Secondary School
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Course previously offered as CIED 4723. May not be used for degree credit with CIED 4724.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 5730 Seminar in Education
Description: Seminar topics may differ depending upon the nature of current interests and topics in American education. May not be used for degree credit with SMED 4560. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5733 History of Reading
Prerequisites: Graduate standing with the Graduate College.
Description: This course provides an examination of the historical landscape of reading education paradigms, research, theory development, instruction, and policy in the U.S. Key research pioneers in reading/literacy education and their work, from a variety of "camps" (e.g. psychological or information processing, phonics, behaviorist, constructivist, reading and writing process, socio-cultural, etc.), will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5810 Internship Art and Foreign Language in PK-12 School
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Advanced clinical experience for art or foreign language teacher candidates (student teacher) in PK-12 schools. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5813 Educational Advocacy and Leadership
Description: Preparation of teachers as advocates and leaders in educational policy and practice at various levels. Skills in action research, policy analysis, and coalition building leading to advocacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5823 Mindfulness, Curriculum, and Teaching
Description: The concept of mindfulness and its meanings for education. Theory and practice of mindful curriculum and teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5843 First and Second Language Acquisition for Teachers
Description: The overall focus of this course is on introduction to theory, research, and practice in the fields of first and second language acquisition; understanding of language acquisition at various developmental levels, both within and outside of the classroom; and application of language acquisition theories to instructional practice. May not be used for degree credit with CIED 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5850 Directed Study
Prerequisites: Consent of instructor.
Description: Directed study for master's level students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5853 Teaching Writing GR 1-8
Prerequisites: Admission into MAT program.
Description: Learning theory, content, and methods related to teaching spoken, written, and visual forms of communication. Focus on listening, speaking, writing and on teaching knowledge, skills and strategies inherent in those processes. Stresses integration of central literacy components and across the curriculum, teaching diverse learners and perspectives, inquiry, and critical literacy. Meets with CIED 3253. No degree credit for those with credit in CIED 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5863 Foreign Language Instruction, Curriculum and Assessment: Grades Pk-12
Description: History of foreign language education and teaching; understanding the role of foreign language in PK-12 programs; application of national and state foreign language learning standards in instructional planning; application of approaches, methods, strategies, and techniques of foreign language teaching; utilization of assessment tools to obtain information about foreign language learners' learning; and selection, evaluation, development, and modification of foreign language curricula. May not be used for degree credit with CIED 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5893 Reading Processes and Practices GR 1-8
Prerequisites: Graduate Standing and consent of Instructor.
Description: Learning theory, content, and methods specifically related to teaching children to read a wide range of texts. Understandings of central reading components such as print awareness, phonological/phonemic awareness, phonics, fluency, vocabulary, comprehension, and critical literacy. Best practices for teaching reading effectively for diverse learners with varied needs and interests. Includes program phonics exam. Meets with CIED 3293. No degree credit for those with credit in CIED 3293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5963 Teaching Grammar in the Secondary Schools
Prerequisites: Graduate status or instructor permission.
Description: Students learn to teach language inductively to build thinking, language and writing skills. Meets with CIED 4093. No degree credit for those with credit in CIED 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5973 Formative Literacy Assessment GR 1-8
Prerequisites: CIED 5893 and CIED 5853; or consent of instructor.
Description: Selection, administration, and interpretation of a variety of formal and informal literacy assessments. Use of assessment results to plan, evaluate, and revise effective instruction for diverse learners within an assessment/evaluation/instruction cycle. Tutoring practicum required. Meets with CIED 4233. No degree credit for those with credit in CIED 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5993 Teaching Writing in the Secondary Schools
Prerequisites: Graduate status or instructor permission.
Description: Students learn to teach writing inductively by building the reasoning skills that lead to cogent, cohesive, audience-appropriate writing. Focus is on increasing the underlying skills necessary for writing description through argumentation. Meets with CIED 4193. No degree credit for those with credit in CIED 4193 or CIED 4194.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-12 credit hours, maximum of 25 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6030 Contemporary Issues in Curriculum Studies
Description: Examination of selected contemporary topics in curriculum studies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6033 Analysis of Teaching
Description: Advanced study of multiple forms of analysis of teaching such as behavioral, phenomenological, and constructivist with emphasis on major research on teacher reflection and teacher narrative.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6040 Special Topics in College Curriculum and Teaching
Description: Topics vary to address issues related to college curriculum and teaching at various levels of higher education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6043 Curriculum Leadership
Description: A study of curriculum leadership and implications for schooling; focus on what it means to be a curriculum leader in times of major societal change and educational reform.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6053 Advanced Curriculum Studies
Description: In-depth examination of key concepts, topics, trends, and the interdisciplinary nature of curriculum studies. Critical analysis of contemporary curriculum discourses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6060 Advanced Special Topics in Literacy Education
Description: Topics vary to address special topics in literacy education at the doctoral level. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6063 Curriculum History
Description: Examines in-depth the history of various movements in U.S. curriculum thinking and the individuals who promoted them, with attention to the cultural and institutional contexts within which they worked. Emphasis is given to primary sources and the position of curriculum thinking within evolving educational thinking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6070 Seminar in Arts and Humanities Education
Prerequisites: Graduate standing or instructor permission is required.
Description: Topics, research trends, theories, themes, and/or problems of interest and use in research, theorizing, publishing, and teaching. Particular focus on the skill of writing a theoretical lens and analyzing texts through that lens. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6073 Advanced Pedagogical Research
Description: Advanced theory and application of pedagogical research with emphasis on teacher as researcher, teacher research as professional development and education reform, techniques of pedagogical research and pedagogical question posing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6090 Readings in Arts and Humanities Education
Prerequisites: Graduate standing or instructor permission is required.
Description: In-depth readings specific to research and theorizing in arts and humanities education. Focusing on analysis, students examine primary texts and related secondary texts. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6133 Theory to Practice in Education
Description: A culminating seminar demonstrating the application of theory from several disciplines to the practical problems of education: curriculum development, organization, teaching strategies and evaluations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6143 School Reform
Description: Current issues in school reform with an emphasis on U.S. education; focus on what it means to engage in reform from dual points of view: curriculum leader and recipient of reform mandate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6153 Curriculum of Nonviolence
Description: The concept of nonviolence and its implications for curriculum and education. Curriculum dynamics of nonviolence. Curriculum theory and practice for, about, and through nonviolence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6163 Advanced Research Strategies in Curriculum
Prerequisites: SCFD 6113.
Description: Exploration of designs and methods within qualitative and quantitative research as applied to the field of curriculum. Articulation on how to ensure that both qualitative and quantitative studies meet their respective standards of rigor. Previously offered as CIED 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6173 International Peace Curriculum Development
Description: Conceptual foundations of peace education; theory and practice of developing school and college curriculum about and for international peace; case studies of international conflict resolution and peace curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6183 Advanced Media Literacy Across the Curriculum
Description: This course examines the interdisciplinary area of media literacy across the curriculum. Major themes such as issues of hegemony and strategies of media literacy in diverse classrooms will be explored. Students will analyze and evaluate various curriculum theories as applied to media literacy as well as research in the field. Finally, the future of media literacy and debates in the field will be considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6253 Designing and Conducting Mixed Methods Research
Prerequisites: REMS 5953 (or equivalent) and SCFD 5913 (or equivalent); admittance to a doctoral level program.
Description: Participants will examine the history, philosophical foundations, and methodological issues of mixed methods research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6283 Innovation & Change: Implementation Science
Description: Implementation science is the study of factors that influence the successful use of effective innovations in practice to improve outcomes. This course provides theoretical foundations, practical tools and authentic learning opportunities to build the knowledge and skills needed to implement innovations in real-world settings. The focus of the course is on building capacity. Students will learn implementation science theories, models, and frameworks as well as methods and tools to understand the determinants that facilitate or impede implementation at all levels of the implementation process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6383 Coaching Models to Encourage Change
Description: This course is designed to explore the role of coaching in promoting innovation and change within a school or other organizations. While "coaching" in schools is often seen as synonymous with "instructional coaching" this course will take a broader view. In this class we will examine the role of coaching, how to set up and manage a coaching culture, and how to evaluate the success of coaching programs. Additionally, this class will explore multiple coaching models, conversational frameworks, and discuss the practical skills needed to be an effective coach.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6433 Seminar in Literacy
Description: Research of issues in literacy education using knowledge gained through both research and classroom practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6483 Innovation & Change: Practitioner Action Inquiry
Prerequisites: SCFD 5913 recommended
Description: This course focuses on theory, design, and application of practitioner action inquiry. Emphasis is placed on practitioner as researcher, practitioner question-posing, and techniques of practitioner research utilized under the umbrella of practitioner action inquiry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6503 Doctoral Seminar
Description: In-depth investigation into the doctoral experience and the professoriate including research and writing for the dissertation and for publication; grant writing; professionalism and ethics; professional service; and teaching in higher education. Primarily for students in the PhD program in Curriculum Studies and Professional Education Studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6583 Innovation & Change: Data-Driven Decisions
Description: This course is designed to prepare practitioner scholars in education and human sciences to use quantitative data for innovation and change in their professional contexts. Emphasis is on the practical application of existing tools to gather (e.g., Qualtrics, Survey Monkey, academic measures), maintain (e.g., Excel), analyze and share data to make informed decisions for change in their work settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6853 Improvement of Instruction in Reading
Description: Problems and issues related to reading instruction. The roles of various school personnel in changing curriculum and methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6880 Internship in Education
Prerequisites: Consent of instructor.
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6910 Practicum
Prerequisites: Consent of adviser.
Description: Helps the student carry out an acceptable research problem (practicum) in his/her local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

Dance (DANC)

DANC 1003 Introduction to Dance Studies (H)
Description: Explore dance as an art form and academic discipline within a global context. No prior dance experience necessary.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

DANC 1200 Dance Ensemble Practicum
Description: Directed study and practice of dance in performance as a soloist or ensemble member. Offered for variable credit, 1-2 credit hours, maximum of 6 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

DANC 2002 Ballet I
Description: Fundamentals of ballet vocabulary, technique, and aesthetics taught through exercises at the barre, center work, and movement combinations. Suitable for the beginning through advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2102 Contemporary Modern Dance I
Description: Class provides an introduction to the use of gravity, spatial awareness, rhythm, and energy through study of global influences which construct contemporary dance - through floor work, center, and traveling combinations. Suitable for the beginning through advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2202 Jazz Dance
Description: Jazz dance techniques for theatrical performance emphasizing body alignment, coordination, flexibility, rhythm and jazz dance vocabulary in simple dance combinations. Suitable for the beginning through advanced student. Previously offered as TH 2412.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2302 Tap I
Description: Fundamentals of tap dance techniques for theatrical performance emphasizing coordination, rhythm, and dance vocabulary in simple tap combinations. Suitable for the beginning through intermediate student. Previously offered as TH 2432.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2402 Hip Hop Dance and Cultures
Description: This class provides an introduction to hip hop dance techniques and histories. Grounded in appropriate historical and cultural contexts, students will experience various styles under the Hip Hop "umbrella", and develop an understanding of the socio-cultural forces which shape the form.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2563 American Social Dance and Visual Culture
Description: This introductory course offers a beginning-level survey of the cultural history of social dance in North America from the eighteenth century to the present. It combines study of the history, theory, and visual/material culture of social dance with physical practice of specific dance forms. Because few comprehensive written sources exist for social dance, visual art, including film, animation, paintings, sculpture, photography, and illustration, is a vital tool for understanding historic dance and its role in American society. Over the course of the semester, we will examine the visual culture of social dance in order to gain insight into its historical functions as a tool for social cohesion, intercultural exchange, protest/activism, and identity formation, among other things. Through the practice of these dance forms, we will add an experiential component to our analysis of the roles that social dance has played in American culture over time. Same course as ART 2563.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Theatre

DANC 2602 Dance Composition
Prerequisites: DANC 2002 and DANC 2102 or permission of instructor.
Description: An investigation of the elements of dance composition and improvisation in order to experience new kinds of movement, make connections among varied movement ideas, and seek new relationships to create dances. A primer for choreographic studies.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2603 Context and Cultures: Mapping the Dancing Body (H)
Description: This course orients students to the field of dance as an art form and academic discipline that exists beyond simple entertainment. Through readings, video viewing, discussions, writing, and creative assignments students will attune to "reading" the body as a space of intelligence, a creator and product of culture, and entwined within its socio-political contexts. Students will apply critical lenses of gender, race/ethnicity, economics, sexuality, and colonial/post-colonial/neo-colonialism to analyze systems of power. Coursework is curated to encourage curiosity, critical engagement, and a layered understanding of the rich lineages of dance. Students will demonstrate their understanding through written, spoken, and movement-based work.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

DANC 3002 Ballet II
Prerequisites: DANC 2002 or permission of instructor.
Description: Building upon Ballet I, this course emphasizes technical and artistic skills in style and presentation, and the use of increasingly complex combinations and technical vocabulary.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3102 Contemporary Modern Dance II
Prerequisites: DANC 2102 or permission of instructor.
Description: Building on DANC 2102, class provides a continued investigation in to the use of gravity, spatial awareness, rhythm, and energy through study of global influences which construct contemporary dance - through floor work, center, and traveling combinations. Suitable for intermediate through advanced students.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3302 Tap II
Prerequisites: DANC 2302 or permission of instructor.
Description: This class builds on the skills developed in Tap I, with a focus on complex rhythmic patterns, advanced tap steps, and Broadway choreography. Recommended for the Intermediate to advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3400 Teaching Assistant Practicum
Prerequisites: Permission of instructor.
Description: Directed study and practice of dance teaching. This course provides the opportunity for students to learn about the process of teaching through active observation and assisting the instructor during a dance course. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Lab: 2-4 Contact: 3-6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3502 Musical Theatre Dance
Prerequisites: Ballet 1 or consent of instructor.
Description: Course focuses on training performers in the various dance styles used in Broadway and Off-Broadway musicals, and demonstrates the dance skills through performance of choreography by well-known choreographers.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3530 Special Topics in Dance
Prerequisites: Instructor approval.
Description: This course offers specialized topics in dance techniques and dance histories. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Lab: 1-4 Contact: 2-7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3603 Choreography
Prerequisites: DANC 2602 or permission of instructor.
Description: Building upon DANC 2602 Dance Composition, this course is an investigation of dance composition and the choreographic process. Students will learn and execute the fundamentals of dance choreography.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

DANC 3703 Competition Dance - Through an Ethnographic Lens
Description: This upper-level course provides students the opportunity to learn, broadly, about dance as an expression of culture and, specifically, about the phenomenon of commercial competition dance in the United States. Through readings, lectures, discussion, and active fieldwork, students will learn about and utilize Ethnography as a framework for research; apply critical lenses to analysis of research, and plan, administer, and report on active field research. From week to week, students will observe and analyze filmed competition dance classes, rehearsals, and performances through critical research lenses of economics, pedagogy, race/ethnicity, gender, and performance of sexuality. Students will also consider factors of child development as they relate to these lenses. Final work will be submitted as a written report and a verbal presentation developed in collaboration with a small group of peers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

Design & Merchandising (DM)

DM 1003 Design Theory and Processes for Design and Merchandising
Prerequisites: DM/DHM majors and declared DM/DHM minors only.
Description: Design elements, principles and processes applied to design and merchandising. Previously offered as DHM 1003.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1103 Basic Apparel Assembly
Prerequisites: DHM or DM major only or declared DHM or DM minor or HDFS (Family and Consumer Sciences Education option) major.
Description: Basic apparel assembly techniques. Problems including basic fit, spreading and cutting methods and equipment, and use and application of sewing equipment, including lock, chain, and overedge. Previously offered as CTM 1103 and DHM 1103.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1123 Graphics for Interior Design I
Prerequisites: DHM or ADT or FM or ID major.
Description: Drafting and visual communication techniques related to interiors. Previously offered as DHM 1123.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1433 Fundamentals of the Fashion Industry
Description: An overview of variables affecting production and distribution of consumer goods; development of present structure in consumer products industries. Course previously offered as CTM 2433 and DHM 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 1993 Communications and Presentation Techniques for Apparel Design
Prerequisites: DM 1003 with a minimum grade of C.
Description: Creative communication methods and techniques, including a variety of media for two- and three-dimensional presentations in apparel design. Previously offered as DHM 1993 and DHM 2993.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 2003 Problem Solving Strategies
Description: Participatory problem solving in design and merchandising; critique of proposed solutions as a positive process of evaluation. Previously offered as DHM 2003
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2033 VR and AR for Social Change
Description: Focus on using and applying Virtual Reality (VR) and Augmented Reality (AR) technology through a multidisciplinary approach to solving current societal problems by applying social science practices with innovative technology. How to develop 3D content, and apply these components effectively in VR/AR, form teams, and develop VR projects proposed by current events and conditions of the world. Turn your creative ideas into useful applications. This is a beginner-level course and is open to all students. No prior coding or design experience is required.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 2073 Computer-Aided Design for Interior Design
Prerequisites: Permission of Instructor and Pass Proficiency Review and minimum grade of C in both DM 1123 and DM 2233.
Description: Computer-aided design and drafting for two-dimensional and three-dimensional interior systems. Previously offered as DHM 2073, DHM 3373 and HIDC 3373.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2103 Interior Design Studio I: Residential
Prerequisites: Permission of Instructor and Pass Proficiency Review and a minimum grade of C in DM 1123 and DM 2233 and MATH 1513 or MATH 1583 or MATH 1613 and ENGL 1113.
Description: Studio course utilizing the design process in the analysis and planning of residential environments using computer-aided and hand drafting techniques. Previously offered as DHM 2103, DHM 3263 and HIDC 3263.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2204 Intermediate Apparel Assembly
Prerequisites: DM 1103 with minimum grade of “C”.
Description: Development of skill in apparel assembly. Intermediate problems in fit, spreading, cutting, and sequencing of apparel assembly operations for lined garments, plaids, other special fabrics and closures. Course previously offered as DHM 2203, DHM 2204 and CTM 2203.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2212 Heritage of Dress I
Prerequisites: 3 credit hours of History.
Description: Survey of ancient to Baroque European modes of dress, as that clothing reflects the environment and cultural life of a people. Previously offered as DHM 2212.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2233 Graphics for Interior Design II
Prerequisites: DM 1123 with minimum grade of "C".
Description: Applied creative solutions to visual communication formats and media; free-hand sketching, informational graphics, rendering techniques for product and material illustrations, floor plans, elevations and 3-D room interiors/architectural detailing. Previously offered as DHM 2233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2243 Sustainability in the Fashion Industry
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of business strategies for a more sustainable fashion industry. Students will explore concepts and principles of sustainable fashion, examining sustainable sourcing, production methods, and the role of technology in advancing industry-wide sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2263 Interior Design Studio II: Small Scale Contract
Prerequisites: DM 2073 and DM 2103 with minimum grade of "C".
Description: Analysis and planning of small office, hospitality and retail environments with emphasis on materials, lighting, codes and accessibility using computer-aided 2D drafting and 3D modeling techniques. Previously offered as DHM 2263, DHM 3363 and HIDC 3363.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2302 Supervised Field Experience
Prerequisites: DM 2103 with minimum grade of "C".
Description: Field experience in specialized residential, commercial and institutional design with both historic and contemporary elements. Previously offered as DHM 2302.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2403 Research Methods
Prerequisites: MATH 1483 or MATH 1513, with minimum grade of "C".
Description: Qualitative and quantitative data collection methodologies for the fields of Apparel, Interior Design and Merchandising. Basic understanding of data analysis and use of data to guide managerial decision making. Previously offered as DHM 2403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2423 Technology and Visual Communication for Merchandisers
Prerequisites: Fashion Merchandising majors and minors only. DM 1003 and DM 1433, both with a minimum grade of "C".
Description: The development of visual communication skills for marketing, promotional, and merchandising applications as well as personal branding utilizing industry-relevant technological practice. Previously offered as DHM 2423.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2444 Draping
Prerequisites: DM 2204 with "C" or higher and pass proficiency review.
Description: Interpretation of garment design developed through the medium of draping on dress forms. Previously offered as DHM 2443, DHM 2444, DHM 4243, and CTM 4243.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2573 Textile Science (LN)
Description: Science principles as the basis for understanding fibers, the basic structure of yarns and fabrics. Relationships between the chemical composition of fibers and properties such as tensile strength, flammability, elasticity, moisture absorption, and dye affinity. Understanding science principles in relation to textile properties for evaluation of textile products. Recommended for education majors seeking knowledge to be used for innovative teaching of science principles in grades K-12. Required for all DHM majors. Previously offered as CTM 2573 AND DHM 2573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

DM 2913 Sewn Product Quality Analysis
Prerequisites: DM 1433 and DM 2573, both with minimum grade of "C".
Description: Sewn product manufacturing process with emphasis on evaluating product quality and its relationship to performance. Examined from the retailers', manufacturers', and consumers' perspectives. Course previously offered as DHM 2013 and DHM 2913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3014 Flat Pattern Design
Prerequisites: DM 2444 with minimum grade of "C" and pass proficiency review.
Description: Interpretation of dress design developed through the medium of flat pattern; introduction to pattern drafting. Course previously offered as CTM 3013 and DHM 3014.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3023 Computer-Aided Flat Pattern Design
Prerequisites: DM 3014 with minimum grade of "C" and pass proficiency review.
Description: Advanced apparel design problems using flat pattern and computer-aided design (CAD) techniques. Previously offered as DHM 3023.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3033 Material Culture
Prerequisites: DM 3303 or DM 3213 with a minimum grade of "C" or permission of instructor.
Description: An exploration of a variety of theoretical approaches toward understanding what objects mean. Psychological, sociological, economic, and other approaches are examined using culture theory models. Previously offered as DHM 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3043 Digital Product Creation
Prerequisites: DM 3023 with a final grade of "C" or higher
Description: Advance your 2D design skills with 3D digital creation. Understand the importance of the 3D software as it pertains to the apparel industry. Introduction to 3D software programs (BZW, CLO).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3053 Quality Analysis for Apparel Design
Prerequisites: DM/DHM or ADT or FM majors only, and DM 1433, DM 2204, and DM 2573, all with a minimum grade of "C".
Description: Evaluation of product quality relating to target market, materials, and construction. Previously offered as DHM 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3103 Anthropometry and Ergonomics in Design
Prerequisites: DM 2403 with minimum grade of "C".
Description: Methods and principles for representing body size, fit, accommodation, proxemics, ease and product specific functionality to apparel, merchandising and built environment design. Previously offered as DHM 3103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3123 Advanced Technology for Apparel Design
Prerequisites: DHM or DM majors only and DM 1993 and DM 3023, both with a minimum grade of "C".
Description: Building on CAD skills using software as applied to apparel design and production. Development of technical packages and specification materials. Previously offered as DHM 3123.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3173 Digital Design Communication
Prerequisites: DM 2073 with a minimum grade of "C".
Description: Introduction of digital media tools for 2D and 3D design visualization and presentation. Underlying concepts and techniques of computer applications for design communication. Previously offered as DHM 3173.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3213 Heritage of Dress II (H)
Prerequisites: ENGL 1213 with minimum grade of "C" and 3 credit hours of history.
Description: Survey of historic modes of dress from the 18th to the 21st centuries, as that clothing reflects the environment and cultural life of a people, and change within the fashion industry. Previously offered as HIDC 3213 and CTM 3213 and DHM 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Human Heritage & Cultures

DM 3233 Heritage of Interior Design I (H)
Prerequisites: DM 2103, DM 2233 and ENGL 1213, all with a minimum grade of "C".
Description: Religious, civic, commercial, and domestic architecture and furnishings prior to and including the 18th Century with emphasis on the periods which have greatly influenced housing and interior design. Previously offered as HIDC 3233 and DHM 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Human Heritage & Cultures

DM 3263 Applications of Artificial Intelligence in Design
Description: This course explores the integration of Artificial Intelligence (AI) in design practices. Students will gain foundational knowledge in AI and its applications, engage with generative design, data-driven decision-making, and predictive analysis, and understand the ethical implications of AI. Through lectures, workshops, and projects, students will learn to leverage AI tools to enhance creativity, efficiency, and innovation in their work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3303 Materials and Finishes for Interior Design
Prerequisites: DM 2263 with a minimum grade of C and DM 2573 with a minimum grade of C.
Description: An overview and examination of interior materials and finishes. Previously offered as DHM 2303, DHM 3303 and HIDC 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3343 Interior Design Studio III: Interior Components and Construction Documents
Prerequisites: DM 2263 with minimum grade of "C".
Description: Studio course exploring the design, materials, construction and production of interior design components for small scale commercial projects using computer-aided and hand drafted documents and renderings for visualization of design solutions. Previously offered as DHM 2243, DHM 3243, DHM 3343, and HIDC 3243.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3423 Editorial Styling for Merchandisers
Prerequisites: DM 2423 with minimum grade of "C".
Description: The production of artful images and the editorial styling techniques that support this production. Create content for digital and print merchandising applications, with an emphasis on editorial layout and social media design. Previously offered as DHM 3422 and DHM 3423.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3433 Retail Strategies in the Digital Sector
Prerequisites: DHM or DM majors or declared DHM or DM Minors or by permission of instructor, DM 1433 and ECON 1113 or ECON 2103, all with a minimum grade of C.
Description: Study and application of retail merchandising in a virtual format. Emphasis on retail strategies and their impact on consumer experience in digital markets. Previously offered as DHM 3433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3443 Fashion Marketing Strategies
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of strategic approaches in fashion marketing, emphasizing effective promotion and positioning of fashion brands in a competitive marketplace. Students will learn how to develop and implement effective marketing strategies that drive consumer engagement and sales.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3453 Interior Design Studio IV: Environmental Design
Prerequisites: DM 3343 with minimum grade of "C".
Description: Exploration of the design factors and human performance criteria for lighting, acoustics, and thermal/atmospheric comfort and their applications in studio projects using computer-aided and hand drafted techniques. Previously offered as DHM 3253, DHM 3453 and HIDC 3253.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3463 Fashion Consumer Behavior
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of psychological and social factors influencing consumer purchasing decisions in the fashion industry. Students will explore theories of consumer behavior and trends to understand how fashion brands can effectively engage their audiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3533 Textile Surface Design
Prerequisites: DM 1003 and DM 2573 and DM 1993 or DM 2423, all with minimum grade of "C".
Description: Traditional and contemporary dyeing, printing, stitching, and other textile surface manipulation techniques are practiced in a portfolio of individual projects. Exercises in color theory and production inform textile design work. Aesthetic, methodological, and environmental tradeoffs are considered in relation to designing textile surfaces. Course previously offered as DHM 3533 and CTM 3533.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3553 Profitable Merchandising Analysis
Prerequisites: MATH 1483 or MATH 2103 or MATH 1513, all with minimum grade of "C".
Description: Relationship analysis of profit and loss statement. Retail mathematical calculations necessary to plan and control merchandising results, open-to-buy, mark-up, mark-down, turn-over, stock-sales ratio. Initial development of a six-month buying plan. Previously offered as DHM 3553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3563 Fashion Buying and Planning
Prerequisites: DM 3553
Description: Study of the principles and practices of fashion buying and planning, focusing on strategic retail acquisition, assortment management, and inventory optimization. Emphasis on consumer behavior analysis, trend forecasting, and the development of a 6-month buying plan to align purchasing decisions with seasonal trends and maximize profitability. Previously offered as DHM 3563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3823 Professional Practices for Interior Design
Prerequisites: DM 2263 with minimum grade of "C".
Description: Specific terminology, procedures, relationships and ethics pertaining to the organization and conduct of interior design practice globally. Previously offered as DHM 3823 and HIDC 3823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3853 Visual Merchandising
Prerequisites: "C" or better in DM 2423.
Description: Study and application of principles and practices in merchandise presentation for commercial purposes. Course previously offered as CTM 3853 and DHM 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3881 Interior Design Pre-Internship Seminar
Prerequisites: DHM or DM majors only. DM 2073 and DM 3343 and DM 3823 and EDHS 1112 or EDHS 3112, all with minimum grade of "C", Junior standing, and 2.5 major GPA.
Description: Preparation for obtaining and completing a directed practical experience in a work situation in the interior design field. Previously offered as DHM 3881.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3991 Pre-Internship Seminar
Prerequisites: ADT/ADP option: DM 1003 or DM 2003 or DM 2573 and DM 3123. FMER/MERC option: DM 1003 and DM 2003 and DM 2573 and DM 3433. ID option: DM 2073 and DM 3343 and DM 3823. All options: DHM or DM majors only. EDHS 1112 or EDHS 3112 and 2.5 major GPA.
Description: Preparation for obtaining a directed practical experience in a work setting related to design or merchandising. Previously offered as CTM 3991 and DHM 3991.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3993 Global Sourcing Strategies
Prerequisites: ECON 1113 or ECON 2103 or ECON 2203 with minimum grade of "C" and Junior standing.
Description: Broad multi-disciplinary study of the soft goods industries in the global economy. Previously offered as DHM 4993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3994 Professional Internship in Merchandising or Apparel Design and Production
Prerequisites: DHM or DM majors only and DM 3991 and (merchandising students) DM 3553 and DM 3853 or (apparel design and technology students) DM 3023 and DM 3123, all with minimum grade of "C" and EDHS 1112 or EDHS 3112.
Description: Directed practical experience in an approved work situation related to the fashion industry. Course previously offered as DHM 3994.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4010 Fashion Show Production
Description: Focus on fashion show production and promotion. Event management and public relation skills will be developed in the context of organizing a fashion show that highlights original student design work. Leadership and group interaction skills will be emphasized. Previously offered as DHM 4010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4011 Post-Internship Seminar
Prerequisites: DM majors only, DM 3994.
Description: Study and comparison of student work experiences. Individual student conferences, review of merchant supervisor reactions. Previously offered as CTM 4011 and DHM 4011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4013 Advanced Visual Communication for Merchandisers
Prerequisites: Grade of "C" or better in DM 3853, Fashion Merchandising majors or minors only.
Description: Advanced visual communication skills for marketing, promotional, and merchandising applications as well as personal branding utilizing industry-relevant technology practice. Previously offered as DHM 4013.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4023 Retail Analytics and Insights
Prerequisites: Grade of “C” or better in DM 3563
Description: Study of data-driven strategies in retail, focusing on the use of analytics to optimize decision-making. Topics include sales forecasting, customer behavior analysis, inventory management, and market trend identification. Students will learn to leverage data tools and techniques to generate actionable insights for improving retail performance and driving business growth. Previously offered as DHM 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4033 Digital Product Creation II
Prerequisites: DM 3043, with final grade of "C" or higher.
Description: Continue to improve your knowledge and proficiency in 3D with advance skills with avatars, materials, pattern creation, styling and simulations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4040 International Studies in Design and Merchandising
Description: Selected areas of international study in Design and Merchandising. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as DHM 4040.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4043 Advanced Digital Product Creation
Prerequisites: DM 4033, with a final grade of "C" or higher.
Description: Determine your path to 3D garment creation with advanced 3D design knowledge. Increase your skill set in 3D with advanced rendering, garment construction and animating Avatars.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4050 Biomimetic Industrial Practices
Prerequisites: Completion of DM 1101, Wicked Problems of Industrial Practice, is recommended prior to enrolling in this course.
Description: Exploration of sustainable solutions to challenges imposed by human beings through emulation of principles inherent in how nature works with an emphasis on applications in design. Completion of DM 1101, Wicked Problems of Industrial Practice, is recommended prior to enrolling in this course. May not be used for degree credit with DM 5050. Previously offered as DHM 4050 and DHM 4051. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4053 Capstone in DPC
Prerequisites: DM 4043, with a final grade of "C" or higher.
Description: Advance your skills and focus your individual path as an artist, designer and tech designer. As a technical designer it is important to have a grasp of the skills required. This course will expand on pattern and garment fit in relation to 3D and actual fit model. We will also expand on creating these garments in multi-sizes, garment construction, marker consumption and bill of materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4063 Sustainability in the Built Environment
Prerequisites: Senior standing
Description: This course utilizes a project-based learning approach to educate students about sustainability requirements in the built environment. Students will learn to connect concepts to practical application through the integrative design process. Students will be prepared to sit for the LEED exam after successfully completing this course. Previously offered as DHM 4021.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4073 Advanced Textiles
Prerequisites: DM 2573
Description: An overview on protective textiles and clothing used by workers (e.g., firefighters, oilfield-workers) in high-risk sectors will be provided. Various factors affecting the performance of protective textiles and clothing will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4083 Technology in Apparel Retail and Consumer Experiences
Description: A study of technology in the field of retail and consumer behavior. Examination of concepts, frameworks, theories, issues, and academic research in content areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4153 Technical Design
Prerequisites: DHM or DM majors only and DM 3123 and DM 3053, both with a minimum grade of "C".
Description: Understanding and applying tech design for apparel related products. Technical design includes illustration, sketching, CAD pattern making, CAD marker making, material sourcing, production simulation, 3D avatars and fitting, along with costing. Previously offered as DHM 3153, DHM 4153 and CTM 3153.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4163 Housing in Other Cultures
Description: Housing and interior design and expressions of cultural beliefs, attitudes, family patterns and environmental influences. Previously offered as DHM 4163 and HIDC 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4203 Functional Clothing Design
Prerequisites: DM 2573 and DM 3123, both with a minimum grade of "C".
Description: Problem solving approach to functional clothing design for specialized market segments (athletic, sportswear, clothing for the physically challenged) including performance evaluation of selected materials using standard methods of textile testing. Previously offered as CTM 3203 and DHM 3203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4264 Interior Design Studio V: Large Scale Commercial
Prerequisites: DM 3453 and DM 4373 and DM 4824, all with a minimum grade of "C".
Description: Analysis of large scale office planning and institution design including systems and specifications and emphasizing computer-aided design techniques for construction documents and presentations. Previously offered as DHM 4263, DHM 4264 and HIDC 4293.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4294 Interior Design Studio VI - Capstone
Prerequisites: DM 4264 with a minimum grade of "C".
Description: Studio course utilizing the design process in the analysis and planning of hospitality design and/or institutional design such as health care and education. Approaches include the consideration of the impact on facility management. Previously offered as DHM 4293, DHM 4294 and HIDC 4293.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4323 Heritage of Interior Design II (G)
Description: Exploration of the architecture, interiors and furnishings of a variety of structures. Residential, commercial, governmental, institutional, and recreational buildings of different cultures of the 19th and 20th centuries. Previously offered as HIDC 3333, HIDC 4323 and DHM 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: International Dimension

DM 4373 Advanced Computer-Aided Design for Interior Design
Prerequisites: DM 2073, with a minimum grade of "C".
Description: Advanced computer-aided design and visualization for three-dimensional interior systems. Previously offered as DHM 4373.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4403 Advanced Apparel Design
Prerequisites: DM 2444 and DM 3023, with a minimum grade of "C".
Description: Application of design and pattern-making principles and apparel assembly processes in the development of original designs. Course previously offered as CTM 4403 and DHM 4403.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4433 Facility Management and Design
Description: Survey of nine competency areas of facility management and design, ensuring functionality of the built environment by integrating people, places, processes and technology. Previously offered as DHM 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4453 Fashion Entrepreneurship
Prerequisites: DM 3553, DM 3563, and DM 3993 with a minimum grade of "C".
Description: Study of the principles and practices of launching and managing a successful fashion business. This course covers the entire entrepreneurial process from ideation to business planning, including market research, brand development, financing strategies, product sourcing, and distribution. Students will explore challenges and opportunities in the fashion industry and develop the skills necessary to create, finance, and grow their own fashion enterprises. Previously offered as CTM 4453 and DHM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4503 Couture Techniques
Prerequisites: DM 2444, with a minimum grade of "C".
Description: Advanced clothing construction techniques using couture methods. Previously offered as DHM 4503.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4523 Critical Issues in Design and Merchandising
Prerequisites: Senior standing in DHM/DM major.
Description: Capstone course examining professional issues in design and merchandising in the context of central themes from general education. Course previously offered as CTM 4523 and DHM 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4533 Diversity and Inclusion in the Built Environment (D)
Description: In-depth study focused on diversity and inclusion needs of underrepresented groups in a variety of built environments including: offices, retail stores, hotels, restaurants, government, educational, housing and cultural institutions. This includes examining the lived experience of individuals of diverse ages, genders, physical and cognitive abilities framed within a lens of individual and civil rights. Previously offered as DHM 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Diversity

DM 4573 Sustainable Design for Apparel and Interiors
Prerequisites: CHEM 1014 or equivalent, and DM 2573, DM 3033 and Senior standing. Non DM majors: no prerequisite.
Description: A brief review of contemporary environmental, social and economic issues associated with industry practice; a broad exploration of sustainable design theories which may be applied in the apparel and interiors fields, from eco-efficiency to socially-driven changes. Previously offered as DHM 4573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4583 Sustainable Design Capstone
Prerequisites: DM 1101 with a minimum grade of "C" and Permission of Instructor.
Description: Work with community leaders and/or organizations to complete transdisciplinary service-learning projects that require the application of sustainable design concepts to solve local problems. Public dissemination of lessons learned. Previously offered as DHM 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4810 Problems in Design and Merchandising
Prerequisites: Consent of instructor.
Description: Selected areas of study in design and merchandising. Previously offered as DHM 4810. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4824 Professional Internship
Prerequisites: ADP option: DM 3023 and DM 3123. ID option: DM 3453 and DM 4373. Merch option: DM 3553 and DM 3853. All options: DHM or DM majors only, 2.5 major GPA and DM 3991.
Description: A supervised internship experience that simulates the responsibilities and duties of a practicing professional in a work situation related to design in merchandising. Previously offered as DHM 4820 and DHM 4824.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4850 Special Unit Course in Design and Merchandising
Description: In-depth study of specific areas of design and merchandising. Previously offered as HIDC 4850 and DHM 4850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4893 Fundamentals of Medical Smart Garment Engineering
Prerequisites: Senior standing or higher.
Description: Students will gain elementary knowledge in focus areas of health science, biomedical sensing and analysis, and apparel design necessary to undertake the development of wearable electronic sensing systems. Lecture and laboratory systems. May not be used for degree credit with BIOM 6893, IEM 4893 or IEM 5893. Previously offered as DHM 4893.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4900 Honors Creative Component
Prerequisites: College of Education and Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in the College of Education and Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral examination. Previously offered as DHM 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5000 Master's Thesis
Prerequisites: Graduate standing and consent of major professor.
Description: Research related directly to design and merchandising for the master's thesis. Previously offered as CTM 5000 and DHM 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5001 Orientation to Graduate Studies in Design and Merchandising
Description: Process of developing a graduate plan of study in the Department of Design and Merchandising. Fundamental skills needed for successful completion of a DM graduate degree. Previously offered as DHM 5001.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5003 Theoretical Perspectives for Design and Merchandising
Description: A study of terminologies associated with theory. Exploration of key theories and their application to practice and research in design and merchandising. Previously offered as DHM 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5010 Thesis Equivalency for Doctoral Students
Prerequisites: Doctoral student standing and consent of supervising instructor and DM 5013 and STAT 5013, or equivalent courses.
Description: Research related directly to design or merchandising, conducted for the purpose of removing a master's degree research thesis deficiency. Previously offered as DHM 5010. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5013 Research Developments in Design and Merchandising
Description: Current methods and needs in research for fashion design, interior design and merchandising including the application and integration of research into fashion design, interior design and merchandising practice. Previously offered as DHM 5110 and DHM 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5023 User-Centered Methods for Human Factors Research
Description: A broad overview of Human Factors applications through the methods of User-Centered Design. Theories and methods that influence the assessment of physical, cognitive, social and psychological human factors and the analysis of user needs with application to designed processes, products and environments, explored through reading, lectures, discussion, case studies and course projects. Previously offered as DHM 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5033 Foundations of Sustainability in Merchandising
Description: Introduction to the theory, principles, and practices of sustainability. Examination of environmental, social, and economic sustainability at both the global and apparel and textile industry levels. Exploration of innovative practices and social change strategies for the furtherance of sustainability. Previously offered as DHM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5043 Technology in Apparel Retail and Consumer Experiences
Description: A study of technology in the field of retail and consumer behavior. Examination of concepts, frameworks, theories, issues, and academic research in content areas. Previously offered as DHM 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5050 Biomimetic Industrial Practices
Description: Exploration of sustainable solutions to challenges imposed by human beings through emulation of principles inherent in how nature works with an emphasis on applications in design. Completion of DHM 1101, Wicked Problems of Industrial Practice, is recommended prior to enrolling in this course. May not be used for degree credit with DM 4050. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5053 3D Digital Product Creation
Prerequisites: DM 3023 or permission of instructor
Description: Advance your 2D design skills with 3D digital creation. Understand the importance of the 3D software as it pertains to apparel industry. Introduction to 3D software programs Graduate Level Online only.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5063 Advanced Textiles
Prerequisites: Knowledge of Textiles
Description: An overview on protective textiles and clothing used by workers (e.g., firefighters, oilfield-workers) in high-risk sectors will be provided. Various factors affecting the performance of protective textiles and clothing will also be discussed. The skills related to laboratory experiments on protective textiles and clothing will be developed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5073 Application of Virtual and Augmented Reality
Description: This course focuses on using and applying virtual reality, augmented reality technology and 3D printing through a multidisciplinary approach to solve pressing social problems by blending social science practices with innovative technology. Previously offered as DHM 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5083 Advanced Virtual and Augmented Reality for Social Change
Description: Explores evidence-based design/research informed design through the use and application of Virtual Reality (VR) and Augmented Reality (AR) technology using a multidisciplinary approach to solve current societal problems by applying social science practices with innovative technology. Learn how to develop 3D content, and apply these components effectively in VR/AR, form teams, and develop VR projects proposed by current events and conditions of the world. Turn your creative ideas into useful applications. No prior coding or design experience required. Same course as EDTC 5703.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 5093 Proposal Writing
Prerequisites: DM 5013, with a minimum final grade of "C".
Description: Fundamentals of planning for a research project with an emphasis on the development of literature review. Previously offered as DHM 5112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5113 Theories of Creative Process in Design and Merchandising
Description: A study of the creative processes used in art, science, business and hybrid disciplines, with application to design and merchandising. Previously offered as DHM 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5123 Foundations in Sustainability in Apparel & Textiles
Description: Introduction to the theory, principles, and practices of sustainability. Examination of environmental, social, and economic sustainability at both the global and apparel and textile industry levels. Exploration of innovative practices and social change strategies for the furtherance of sustainability. Previously offered as DHM 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5143 Digital Product Creation II
Prerequisites: DM 3043, with a final grade of "C" or higher.
Description: Continue to improve your knowledge and proficiency in 3d with advanced skills with avatars, materials, pattern creation, styling and simulations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5153 Advanced Digital Product Creation
Prerequisites: DM 5143, with a final grade of "C" or higher.
Description: Determine your path to 3D garment creation with advanced 3D design knowledge. Increase your skill set in 3D with advanced rendering, garment construction and animating Avatars.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5173 Advanced Digital Design Communication
Description: Evidence-based design/research informed design through 2D and 3D visualization and presentation. Students will apply 3D and 2D visualization and simulations skills to real world situations through a scientific approach. Previously offered as DHM 5173.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 5183 Capstone: Digital Product Creation in Technical Design
Prerequisites: DM 5153, with a final grade of "C" or higher.
Description: Advance your skills and focus your individual path as an artist, designer or tech designer. As a technical designer, it is important to have a grasp of skills required. This course will expand on pattern and garment fit in relation to 3D and actual fit model. We will also expand on creating these garments in multi sizes, garment construction, marker consumption and bill of materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5240 Master's Creative Component
Prerequisites: Consent of major professor and department head.
Description: An in-depth design application of theoretical design models and philosophies. A maximum of six hours to be used by graduate students following Plan III for the master's degree. Previously offered as HIDC 5240 and DHM 5240. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5243 Retail Analytics and Insights
Description: Study of data-driven strategies in retail, focusing on the use of analytics to optimize decision-making. Topics include sales forecasting, customer behavior analysis, inventory management, and market trend identification. Students will learn to leverage data tools and techniques to generate actionable insights for improving retail performance and driving business growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5263 Applications of Artificial Intelligence in Design and Design Research
Description: This course explores the integration of Artificial Intelligence (AI) in design practices. Students will gain foundational knowledge in AI and its applications, engage with generative design, data-driven decision-making, and predictive analysis, and understand the ethical implications of AI. Through lectures, workshops, and projects, students will learn to leverage AI tools to enhance creativity, efficiency, research and innovation in their work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5303 Sociological, Psychological and Economic Aspects of Consumer Behavior
Description: Analysis and integration of social, psychological and economic theories related to consumer acquisition of products. Application and testing of these theories as appropriate to apparel and interior consumption processes. Previously offered as DHM 5303 and 6303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5343 Applied Sensation, Perception and Behavioral Psychology in DM
Prerequisites: DM 5013.
Description: Human sensation, perception and behavior in the areas of technology/product development, the built environment, social change and consumer behavior. Previously offered as DHM 5343 and HIDC 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5353 Graduate Interior Design Studio
Prerequisites: Consent of instructor.
Description: Studio course exploring alternative, research-based design solutions for selected interior environments. Previously offered as DHM 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5360 Advanced Studies in Design and Merchandising
Description: Investigation into special areas in the fields of design and merchandising. Previously offered as HIDC 5360 and DHM 5360. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5363 Color Theories and Applications for Apparel and Interiors
Prerequisites: Nine hours in DM graduate courses or consent of instructor.
Description: Survey of color theories as they apply to the physical, psychological, and aesthetic aspects of apparel and interiors. Previously offered as DHM 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5373 Topics in Building Information Modeling
Description: An introduction to Revit Architecture and discussion of advanced topics on Building Information Modelling. Previously offered as DHM 5373.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 5440 Career Internship
Prerequisites: Consent of instructor and department head.
Description: An individualized career-oriented internship. Selected learning experiences in approved work situations in industry, government, education or research institutions related to design or merchandising. Previously offered as CTM 5440 and DHM 5440. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5533 Theory and Design of Functional Apparel
Prerequisites: DM 2573, DM 3013, DM 5013, or consent of instructor.
Description: A holistic approach to the study of apparel design with an emphasis on integrating knowledge of the needs and functions of the individual, the structural properties of textiles and apparel design. Previously offered as DHM 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5623 Professional Advancement in Merchandising
Description: Analysis of leadership and how it affects organizational culture and change through a prism of past and current experiences. Various leadership styles examined and a personal leadership philosophy developed for professional advancement in merchandising. Web-based instruction. Previously offered as DHM 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5633 Product Design, Development and Evaluation
Description: Advanced study of issues and management strategies necessary to design and produce a competitively priced product. Examination of the role of globalization and rapidly changing technology on the development of a successful product. Web-based instruction. Previously offered as DHM 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5643 Promotional Strategies in Merchandising
Description: Examination of integrated marketing communications (i.e., promotional strategies and techniques) while fostering cultural and global awareness, social responsibility and ethical decision-making in the field of promotion. Web-based instruction. Previously offered as DHM 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5663 International Merchandising Management
Prerequisites: Merchandising or business courses or consent of the instructor.
Description: Comprehensive understanding of theory, practices, and trends in international merchandising management. An analysis of global retail systems and the way goods are distributed to consumers in various countries. Previously offered as DHM 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5673 Financial Merchandising Implications
Description: Advanced study of financial trends in the merchandising industries; implications related to sole proprietors, partnerships, franchises, S corporations, and C corporations. Foci will be on the financial implications of recent advances in the field that assist graduate students as they embark on careers in academic and/or the merchandising industries. Web-based instruction. Previously offered as DHM 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5683 Strategic Planning for the Merchandising Executive
Description: Examination of the merchandising executive planning process utilized to develop successful corporate strategies. Emphasis on the importance of a market orientation for building customer value and sustaining a competitive advantage. Web-based instruction. Previously offered as DHM 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5693 Retail Analytics
Description: Learn advanced data analysis techniques in Microsoft Excel. Develop strategies for managing the flow of goods in the supply chain with no emphasis on forecasting, pricing, managing customer relationships, retail inventory and revenue in the fashion merchandising industry. Previously offered as DHM 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 5810 Problems in Design and Merchandising
Prerequisites: Consent of instructor or department head.
Description: Individual and group investigations and discussions of special problems in the various phases of design and merchandising. Previously offered as CTM 5810 and DHM 5810. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5830 DM Seminar
Prerequisites: Consent of Instructor.
Description: A selected group of current issues in design and merchandising. Course previously offered as HIDC 5830 and DHM 5830. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 5963 Case Studies in Medical Smart Garment
Prerequisites: DM 4893 or consent of instructor.
Description: Advanced training course designed to activate critical thinking skills needed for problem solving in wearable sensing system development. Same course as BIOM 5963. Previously offered DHM 5963.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 5983 Category Management in Merchandising
Description: The application of category management strategies using industry software with emphasis on product selection, shelf merchandising, promotion and pricing. Previously offered as DHM 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 6000 Doctoral Dissertation
Prerequisites: Completion of a master's research thesis or thesis equivalency and consent of major instructor.
Description: Research in design and merchandising for the PhD degree. Previously offered as DHM 6000 and CTM 6000. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 6133 Research Methods in Design and Merchandising
Prerequisites: DM 5112 and DM 5013 or equivalent and six credits of graduate level statistics.
Description: Survey and discussion of research methods, experiences in research design and analysis of data. Previously offered as CTM 6133 and DHM 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 6363 Anthropometry and Ergonomics in DM
Prerequisites: Graduate standing and DM 6133 or equivalent.
Description: Variability of human body measurements and their relationships (body shape) as determinants for product design. Theory and practice of anthropometry and ergonomics (human factors) as applied to apparel and/or interior design. Comfort, performance, health, and safety issues in product design for men, women, children, and special populations. Previously offered as DHM 6363.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Design & Merchandising

DM 6403 Merchandising Theory Application and Strategy Implementation
Prerequisites: DM 5653.
Description: Integration of marketing, merchandising, and management theories, strategies, models, and frameworks. Application of theories and implementation of strategies relevant to apparel and interior industries. Previously offered as DHM 6403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 6410 Independent Study in Design and Merchandising
Prerequisites: Consent of instructor.
Description: Selected areas of design and merchandising for advanced graduate students working toward the doctorate degree. Previously offered as HIDC 6410 and DHM 6410. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 6810 Advanced Problems in Design and Merchandising
Prerequisites: Consent of instructor or department head.
Description: Intensive individual or small-group study of problems in various areas of design merchandising for advanced graduate students who are working toward doctorate degrees. Previously offered as CTM 6810 and DHM 6810. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 6830 DM Seminar
Prerequisites: Consent of instructor.
Description: Problems and recent developments in design and merchandising. Previously offered as HIDC 6830 and DHM 6830. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Design & Merchandising

Design Housing & Merchandising (DHM)

DHM 2033 VR and AR for Social Change
Description: Focus on using and applying Virtual Reality (VR) and Augmented Reality (AR) technology through a multidisciplinary approach to solving current societal problems by applying social science practices with innovative technology. Learn how to develop 3D content, and apply these components effectively in VR/AR, form teams, and develop VR projects proposed by current events and conditions of the world. Turn your creative ideas into useful applications. This is a beginner-level course and is open to all students. No prior coding or design experience is required.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DHM 4001 Design and Merchandising Speakers Colloquium
Description: Seminars presented by distinguished industry professionals. Current issues and implications for the future of apparel and interiors.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DHM 5083 Advanced Virtual and Augmented Reality for Social Change
Description: Explores evidence-based design/research informed design through the use and application of Virtual Reality (VR) and Augmented Reality (AR) technology using a multidisciplinary approach to solve current societal problems by applying social science practices with innovative technology. Learn how to develop 3D content, and apply these components effectively in VR/AR, form teams, and develop VR projects proposed by current events and conditions of the world. Turn your creative ideas into useful applications. This course is open to all graduate students. No prior coding or design experience is required. Same course as EDTC 5703.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Design & Merchandising

Diversity (DIVR)

DIVR 2003 Inclusion Leadership (DS)
Description: Focus on developing and refining leadership skills in order to prepare for success in personal and professional lives. Variety of leadership theoretical perspectives to broaden perspectives; develop inclusive leadership skills; increase knowledge regarding global networking; and clear a pathway to successful living within a global society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

DIVR 2213 Minorities in Science and Technology: Contributions Past, Present and Future (DS)
Description: Women, racial and ethnic minorities are underrepresented in science and technology in America. STEM (science, technology, engineering, and mathematics) fields are traditionally perceived as unwelcoming for these groups. This course examines this idea by focusing on the notion of a "Chilly Climate" for minorities in technical fields. The contributions of prominent women and minority scientists and engineers in America will be explored, as well the struggles they overcame to achieve. This course also explores current issues and why inclusiveness matters today and in the future.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

DIVR 2323 Diversity and Inclusion in 21st Century America (DS)
Description: This course is designed to increase awareness and understanding of diversity and inclusion in the United States. It focuses on the complex and often controversial issues of race, sex, gender, sexual orientation, social class, and disability by assessing the effects these categories have on society. This course will examine the historical context and how the United States has reached current categories of difference
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

Economics (ECON)

ECON 1113 The Economics of Social Issues (S)
Description: Issues-oriented approach. Basic economic principles introduced and developed through study of important social issues: for example, inflation, unemployment, poverty, discrimination, crime, population growth and environmental quality. Develops the economist's approach to social problems, and evaluates the contribution of economics to their solution. No general education credit for students also taking AGEC 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2003 Microeconomic Principles for Business
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations relevant to business: operation of markets for goods, services and factors of production; the behavior of firms and industries for different types of competition; and international exchange. May not be used for degree credit with ECON 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 2103 Introduction to Microeconomics (S)
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations from current social issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition; income distribution; and international exchange. May not be used for degree credit with ECON 2003. No general education credit for students also taking AGEC 1113. Previously offered as ECON 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2203 Introduction to Macroeconomics
Prerequisites: ECON 2103 or ECON 1113 or AGEC 1113 or ECON 2003.
Description: The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; monetary and fiscal policy; and aspects of international interdependence. Previously offered as ECON 2013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3010 Special Topics in Economics
Prerequisites: ECON 2203, prior approval of instructor.
Description: Analysis of a contemporary topic in economics. Course content will vary to reflect changing social issues and trends in applied economics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 3023 Managerial Economics
Prerequisites: ECON 2103 or AGEC 1113 or ECON 2003.
Description: Application of economic theory and methodology to decision problems of private industry, nonprofit institutions and government agencies; demand and cost analysis, forecasting, pricing and investment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3033 Economics of Entrepreneurship and Innovation
Prerequisites: 3 credit hours in Economics.
Description: Explores the process of economic innovation and entrepreneurship from both microeconomic and macroeconomic perspectives. Key topics include risk and uncertainty, the psychology of innovation, institutional change, product versus process innovation, the externality of innovation, innovation profit, innovation life cycle, innovation diffusion, and business cycle instability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3043 Real Estate Economics
Prerequisites: ECON 2003 or ECON 2103.
Description: Theoretical and empirical development of an understanding of economic factors that shape and influence markets for real property. Topics include theory of land markets and locational choice, studies of changing economic activities, demographic trends, transportation, and local government behavior as they affect real estate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3113 Intermediate Microeconomics
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: How the market organizes economic activity and an evaluation of its performance. Principles of price theory developed and applied to the interactions of consumers, producers and resource owners in markets characterized by different degrees of competition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3123 Intermediate Macroeconomics
Prerequisites: ECON 2203 and either MATH 2103 or MATH 2144.
Description: Development of a theoretical framework for studying the determinants of national income, employment and general price level. National income accounting, consumption, investment, government spending and taxation, the supply of and demand for money. Monetary, fiscal and incomes policies considered with regard to unemployment, inflation and economic growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3213 Game Theory and Experimental Economics
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: The fundamentals of strategic actions presented in a game theory context and the validation of these ideas with economic experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3313 Money and Banking
Prerequisites: ECON 2203.
Description: The economics of money and banking. Operations of commercial banks and structure and competition of the banking industry. Organization and operation of the Federal Reserve System and its effects on interest rates, employment and prices. An introduction to monetary economics and international banking concludes the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3423 Public Finance
Prerequisites: ECON 2003 or ECON 2203.
Description: The economics of the government sector. Scope of government activity, efficiency in government expenditures, federal budget, fiscal and debt management policy. Principles of taxation. Major tax sources, tax distribution, tax issues. Current public finance problems such as revenue sharing, negative income tax, urban transport systems and national health insurance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3513 Labor Economics
Prerequisites: ECON 2003.
Description: The economic analysis of labor markets. Topics include labor supply and demand, the impact of education and training, labor migration, the structure of wages, discrimination and labor unions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3613 International Economic Relations (GS)
Prerequisites: ECON 2003 or ECON 2203.
Description: International trade and finance; international economic organizations; the foreign economic policy of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 3703 Introduction to Mathematical Economics
Prerequisites: One from each of the following groups - MATH 1483 or MATH 1513; ECON 2003 or ECON 2103.
Description: Essential mathematical knowledge suitable for economic analysis. Particular emphasis is on learning and using algebra and calculus based techniques as well as optimization theory for analyzing economic decisions. Topics covered include economic applications of basic algebra, calculus, matrix algebra, and etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3713 Introduction to Industrial Organization
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: A branch of Microeconomics specializing in questions related to imperfect competition, effect of market structure on behavior of firms, monopoly power, anti-competitive practices and anti-trust issues. An introduction on strategic competition between firms, how this is related to market structure and market power.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3723 The Economics of Sport
Prerequisites: ECON 2103 or ECON 2003.
Description: Using economic analysis to understand the world of professional and amateur sport. Emphasis will be on economic decision-making relevant to the teams, leagues and institutions in the world of sport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3823 American Economy: The Past and Present (S)
Description: Economic development and economic forces in American history; emphasis upon industrialization and its impact upon our economic society since the Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 3903 Economics of the Environment
Prerequisites: ECON 2103 or ECON 2003.
Description: Economic and political factors that influence the formation and implementation of environmental policy. Environmental policy instruments such as pollution taxes, standards and marketable pollution permits are discussed. Measurement of environmental damages and risk are also considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4043 Real Estate and Capital Markets
Prerequisites: ECON 2003 or ECON 2203.
Description: Understanding of how debt and equity secondary markets linked to real estate assets. Topics include the impact of institutional forces on the real estate sector, development of a framework of institutional real estate private and public equity and capital markets including the concept of market efficiency, modern portfolio theory applications, and market measures of risk and return under current and future circumstances with a particular focus on market activity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4113 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines economic theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4213 Econometric Methods
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Basic quantitative methods used in economic analysis emphasizing applications to economic problems and interpretation of empirical results. Statistical analyses, regression and forecasting techniques using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4223 Business and Economic Forecasting
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Forecasting business and economic variables. Regression models and time series models such as exponential smoothing models, seasonal models, and Box-Jenkins models. Evaluation of methods and forecasting accuracy. Application of methods using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4233 Econometric Applications
Prerequisites: ECON 2203 and 3 hours of statistics.
Description: Econometric applications and data analysis used to conduct economic research and policy analysis. Econometric methods include the basics of linear regression, hypothesis testing, panel data, differences-in-differences, instrumental variables, and quantile regression. The emphasis is on the development of intuition and application rather than econometric theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4643 International Economic Development (GS)
Prerequisites: ECON 2003.
Description: Problems of underdeveloped economics related to the world economy; obstacles to economic growth and policies for promoting growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 4850 Applied Studies in Economics
Prerequisites: 12 credit hours in economics and consent of instructor.
Description: Structured internship or field project with supporting academic study. Offered for variable credit,1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 4913 Urban and Regional Economics
Prerequisites: ECON 2003 or ECON 2203.
Description: Theoretical, historical, and empirical examination of the economic forces that shape growth, development, land use, and location decisions in towns, cities and regions. Presents economic explanation for several urban problems such as sprawl, segregation, crime, pollution, traffic congestion, and inadequate housing and education. The role of state and local governments in addressing these problems is discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4933 Applied Economics
Prerequisites: ECON 3113 and ECON 3123 and 6 additional hours of upper-division economics.
Description: Essential skills in applied economics, including data collection, economics analysis, and presentation of findings. Specific applications may come from international trade and finance, econometrics, energy economics, public finance, labor economics, economic history, regional economics, and development, etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4993 Economics Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in economics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics
General Education and other Course Attributes: Honors Credit

ECON 5000 Research and Thesis
Description: Workshop for the exploration and development of research topics. Research leading to the master's thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 5003 Research Report
Prerequisites: Consent of committee chairperson.
Description: Supervised research for MS report.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5010 Research and Independent Studies
Prerequisites: Consent of departmental committee under a workshop arrangement or supervised independent studies.
Description: Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5033 Macroeconomic Analysis
Prerequisites: Three hours of economics or consent of instructor.
Description: Study of the determinants of aggregate output, employment, price level, and interest rates, including international aspects. Monetary, fiscal, and exchange rate policies and impact on the macroeconomy and business environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5043 Microeconomic Analysis
Prerequisites: ECON 3113 and MATH 2144 or consent of instructor.
Description: A calculus-based microeconomics course developing basic consumer, producer, and equilibrium models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5113 Managerial Economics
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Economic theory applied to business decision-making. Concepts of microeconomics and macroeconomics related to understanding the economic system, analysis of policy, forecasting, and international economics. No credit for PhD students in economics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5173 Energy Economics
Prerequisites: ECON 5113 or ECON 2103 or equivalent.
Description: Develop tools necessary to examine energy markets from an economics perspective and discuss aspects of local, national and global markets for oil, natural gas, coal, electricity, and renewable energy. The course examines public policies affecting energy markets including taxes, regulation, energy efficiency and control of emissions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5213 Introduction to Econometrics
Prerequisites: STAT 3013 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. A review of basic probability and statistics, linear regression with one or more explanatory variables, binary dependent variables regression, instrumental variables regression, the use of panel data, and program evaluation. Assessment of the internal validity of estimated models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5263 Introduction to Econometrics II
Prerequisites: ECON 5213 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. Topics include microeconometric applications using panel data, qualitative choice and limited dependent variable models. Also, includes applications in macroeconomics and financial economics using regression analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5353 Austrian Economics: Theory & History
Description: Explore the Austrian school of economics, its origins, history and theory. Austrian economics views the market as a dynamic process with entrepreneurship as its driving force. In contrast to competing paradigms, the Austrian school consistently applies value subjectivity, acknowledges the highly heterogeneous nature of productive capital and relies primarily on a method that is specific for the social sciences. Same course as EEE 5103. May not be used for degree credit with EEE 4103 or ECON 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5603 Global Economics
Description: This course presents an introduction to economic issues from a global perspective for the non-specialist. It emphasizes the problems and challenges the process of globalization poses to national economies. The first part of the course presents the main theories of international trade and their relevance to explaining current global trade patterns. The second part of the course examines the foreign exchange market and the process of exchange rate determination. It covers various international financial issues such as global current account imbalances, the role of the dollar in international financial markets and international currency crises. Same course as GS 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5733 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national, and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6000 Research and Thesis
Prerequisites: Approval of advisory committee.
Description: Workshop for the exploration and development of research topics. Research leading to the PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6010 Seminar in Economic Policy
Description: Intensive analysis of selected problems in economic policy. Individual research, seminar reports and group discussion of reports. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6013 Microeconomic Theory I
Prerequisites: ECON 5223 or consent of instructor.
Description: Contemporary price and allocation theory with emphasis on comparative statics. Course previously offered as ECON 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6023 Microeconomic Theory II
Prerequisites: ECON 6013.
Description: Contemporary price and allocation theory with emphasis on general equilibrium analysis. Welfare economics. Course previously offered as ECON 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6033 Macroeconomic Theory I
Prerequisites: ECON 5033 or consent of instructor.
Description: National income, employment and the price level from the point of view of comparative statics. Course previously offered as ECON 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6043 Macroeconomic Theory II
Prerequisites: ECON 6033.
Description: National income, employment and the price level from the point of view of dynamics. Growth models. Previously offered as ECON 6143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6113 Seminar in Economic Theory
Description: Microeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6123 Seminar in Economic Theory
Description: Macroeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6213 Econometrics I
Prerequisites: ECON 5213 or consent of instructor.
Description: Theory and application of econometric theory to regression analysis. Topics include OLS, GLS, nonlinear least squares, and maximum likelihood estimation. Course previously offered as ECON 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6233 Time Series Econometrics
Prerequisites: ECON 5243 or equivalent.
Description: Advanced topics and fundamental elements in economic as well as financial time series models. Recently developed techniques with stationary and nonstationary time series, including Box-Jenkins and forecast methods, unit root, cointegration, error correction model, and VAR.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6243 Econometrics II
Prerequisites: ECON 6213.
Description: Advanced econometric theory and microeconometric applications. Topics include instrumental variables estimation, generalized method-of-moments estimation, limited dependent variable models, regression analysis using cross- section survey and panel data, and program evaluation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6323 Mathematical Economics I
Prerequisites: ECON 3113 and MATH 2163 or equivalent.
Description: Mathematical concepts of single variable and multivariate calculus, topological properties of Euclidean space, convergence, linear algebra, optimization theory and the Kuhn-Tucker Theorem with applications from economic theory. Previously offered as ECON 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6613 International Finance
Prerequisites: Permission of instructor.
Description: Open economy macro-economics and the role of devaluation, fiscal and monetary policy in the open economy, monetary approach to the balance of payments, portfolio balance and asset market approaches to the determination of exchange rates. Course previously offered as ECON 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6623 Economic Development I
Prerequisites: Permission of instructor.
Description: Characteristics and problems of less-developed countries. Criteria of growth and development with emphasis on strategies for development. The role of capital, labor, technological progress and entrepreneurship. Growth models. Course previously offered as ECON 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6633 International Trade
Prerequisites: Permission of instructor.
Description: International trade and commercial policy. Comparative advantage, general equilibrium and modern trade theories; welfare implications of international resource allocation models; the theory of protection and international interdependence. Course previously offered as ECON 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6643 Economic Development II
Prerequisites: Permission of instructor.
Description: Major problems of development policy. Inflation and mobilization of capital, investment criteria, agriculture, foreign trade, population and manpower, planning and programming methods. Course previously offered as ECON 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6903 Regional Economic Analysis and Policy
Description: Selected topics in location theory, regional economic growth and policies toward regional development in the U.S. Course previously offered as ECON 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6913 Urban Economics
Prerequisites: Permission of instructor.
Description: The urban area as an economic system. Problems of economic policy in an urban environment. Course previously offered as ECON 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

Education & Human Sciences (EDHS)

EDHS 1111 First Year Seminar Supplement
Description: Experiences that effectively facilitate transition into the College of Education and Human Sciences at OSU. Introduction to the student support services available throughout the college. Career development through connections among the student's major curriculum, general education courses, career goals, and eventual careers. Required of all freshmen in CEHS. May not be used for degree credit with HS 1112, HES 1112 or EDHS 1112.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 2000 Special Topics in Education
Description: Specialized readings in education. Previously offered as EDUC 2000. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 2080 Introduction to International Experiences (G)
Prerequisites: Consent of Associate Dean.
Description: Introduction to international cultures through an educational experience outside the USA. Previously offered as HS 2080. Offered for variable credit, 1-9 credit hours, maximum of 15 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences
General Education and other Course Attributes: International Dimension

EDHS 2111 Career Exploration in Education and Human Sciences
Description: Acquisition of career information critical to introduce students to the world of work. Career searches, processes for interviewing and acquiring careers. Previously offered as HES 2111 and HS 2111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 2210 Professional Field Experience in Education and Human Sciences
Prerequisites: Consent of instructor and major in College of Education and Human Sciences and freshman or sophomore standing.
Description: Supervised field experience in professional setting related to Education and Human Sciences field of study. Previously offered as HS 2210. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 2410 Innovative Education Studies
Description: Designed to meet unique or special needs of individuals involved in education. Topics include contemporary approaches to meeting educational challenges on the professional as well as the personal classroom experience. Previously offered as EDUC 2510. Graded on a pass-fail basis. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 2510 Education and Human Sciences First-year Research Seminar
Prerequisites: College of Education and Human Sciences major; Admission to the Freshman Research Scholars program.
Description: Seminar for College of Education and Human Sciences' first-year students participating in the Freshman Research Scholars Program. Includes exploration of what "research" means in a variety of settings and introduces basic research skills and processes. Previously offered as HES 2510 and HS 2510. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 2511 Dynamics of Leadership in Education and Human Sciences
Prerequisites: Consent of Associate Dean.
Description: Major topics related to personal and professional development, including developing and utilizing leadership skills, teamwork and team building, total quality management, ethics, public speaking, and business and social etiquette. Open to sophomores in the College of Education and Human Sciences who have been accepted in the Ambassadors student organization. Previously offered as HES 2511 and HS 2511.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 3080 International Experience
Prerequisites: Consent of associate dean.
Description: Participation in a formal or informal educational experience outside of the USA. Previously offered as EDUC 3080, HES 3080 and HS 3080. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 3090 Study Abroad
Prerequisites: Consent of the Office of the Study Abroad and associate dean of the College of Education and Human Sciences.
Description: Participation in a formal study abroad program in which a semester or year is spent in full-enrollment at a university outside the U.S. Previously offered as EDUC 3090 and HES 3090 and HS 3090. Offered for variable credit, 1-18 credit hours, maximum of 18 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 3110 Honors Directed Study
Prerequisites: Honors College Participation.
Description: Individualized directed study approved by a sponsoring professor or Honors coordinator. Previously offered as EDUC 3110. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences
General Education and other Course Attributes: Honors Credit

EDHS 3111 Preparing for Your Future Career
Prerequisites: Major in the College of Education and Human Sciences
Description: This seminar is designed to guide students in the College of Education and Human Sciences (CEHS) as they navigate their academic, career, and personal journeys. The course fosters connections with peers, faculty, and alumni while encouraging students to reflect on their passions and align them with their academic and career pursuits. Exploration of your future career goals, the requirements to enter that career and steps to complete while in college are a focus. Must be a student in CEHS. Equivalent to EDHS 1111. May not be used for degree credit with EDHS 1112.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 3112 Education and Human Sciences First-Year Seminar for Transfer Students
Description: Experiences that effectively facilitate transition for the first year transfer student to the College of Education and Human Sciences at OSU. Introduction to the developmental advising process to ensure a successful advisor/advisee partnership. Career development through connections among the student's major curriculum, general education courses, career goals, and eventual careers. Analysis of case scenarios. Previously offered as HS 3112, HES 3112 and HES 3111.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 3210 Internship in Education and Human Sciences
Prerequisites: Consent of instructor and major in CEHS and sophomore standing and EDHS 1112 or EDHS 3112.
Description: Supervised internship related to an Education and Human Sciences field of study. Previously offered as HS 3210 and HES 3210. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 3511 Public Policy and Education and Human Sciences
Prerequisites: Consent of Associate Dean.
Description: The impact of human, economic and material resources. Analysis of developmental, ethical, cultural and public policy factors that influence need satisfaction. Open to juniors and seniors in the College of Education and Human Sciences who have been accepted in the Ambassadors student organization. Previously offered as HS 3511 and HES 3511.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 4000 Honors Seminar in Education and Human Sciences
Prerequisites: Honors College Participation.
Description: In-depth interdisciplinary seminar focused on a current national or international issue having an impact on quality of life. Exploration of the issue utilizing various strategies and national resources. Dialogue and debate from multiple perspectives with emphasis on verbal and written expression. Previously offered as HS 4000 and HES 4000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences
General Education and other Course Attributes: Honors Credit

EDHS 4050 Honors Colloquium
Prerequisites: Honors College Participation.
Description: Study of an interdepartmental and interdisciplinary nature of various important issues and aspects as related to the field of education and human sciences. Provides an intellectual challenge for the able student with a strong dedication to scholarship. Previously offered as EDUC 4050. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences
General Education and other Course Attributes: Honors Credit

EDHS 4110 Professional Education Seminar
Description: Problems, trends, and pertinent education issues. May include simulation, small-group instruction and field-based experiences. For the pre-service or in-service level. Previously offered as EDUC 4110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 5110 Directed Studies in Education and Human Sciences
Prerequisites: Consent of instructor.
Description: Directed individual study in Education and Human Sciences. Previously offered as HS 5110 and HES 5110. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 5210 Contemporary Educational Issues
Description: Contemporary topics and issues in the broad field of education. May include television interaction, small group discussion and outreach and field experiences. Written reports required. Previously offered as EDUC 5110. Graded on a pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 5240 Master's Creative Component
Prerequisites: Consent of associate dean.
Description: An in-depth application of theoretical models and philosophies related to area of specialization. Previously offered as HES 5240 and HS 5240. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 5533 Aging Policy and Advocacy
Description: This course covers the formation, implementation, and impact of various policies and programs focused on providing services and supports for the social, financial, and physical well-being of aging persons within their communities. A primary focus is placed on addressing challenges and gaps in policies, as well as issues of unmet needs and inequity through advocacy and policy-making. Web-based instruction. Previously offered as HES 5533 and HS 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 5543 Interdisciplinary Perspectives in Environments in Aging
Description: This course overviews theoretical perspectives in environments for aging, as well as factors involved in the continuum of environments for aging including aging in place, retirement communities, long term care, memory care, and end of life care. Students will be introduced to a wide range of overlapping domains such as environmental psychology, cognitive science, sociology, physiology, architectural and interior design, human geography and urban/rural planning. Web-based instruction. Previously offered as HES 5543 and HS 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 5633 Applied Research Methods and Evaluation of Aging Programs
Description: This course will familiarize students to applied research methods as they apply to aging programs, such as: needs assessment, formative research, process evaluation, and impact assessment. Students will learn theories and concepts of evidence-informed practice and program evaluation, perform the skills to conduct methodologically sound program evaluation research, and gain practical experience and strategies for application. Previously offered as HES 5633 and HS 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 5910 Educational and Human Sciences Field Experiences
Prerequisites: Consent of instructor.
Description: Guided field experience appropriate to a specific program of study. Field experience preceded and followed by appropriate on-campus seminars, readings and reports. Previously offered as EDUC 5910. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean Education/Human Sciences

EDHS 6183 Dynamics of Innovation and Change
Description: This interdisciplinary course integrates foundational and emerging theories and practical applications to address real-world challenges, fostering innovative strategies and leadership in various contexts
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 6383 Communicating and Sustaining Innovation and Change
Description: This graduate-level course explores the interconnected themes of change management, organizational communication, and innovation implementation within complex organizational contexts. Drawing from theories, research, and practical applications within the varied fields of education and human sciences, this course equips practitioners with the knowledge, skills, and strategies necessary to navigate, lead, and communicate organizational change effectively.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 6483 Working with Lifelong Learners of Diverse Journeys
Description: This class builds foundational understanding of the contemporary, diverse journeys students bring to learning spaces. Students are prepared to be effective at developing and facilitating further and continuing educational experiences through exploration and understanding of instructor as learning partner/facilitator, andragogical considerations, the design of significant learning experiences, and student diverse backgrounds/hidden populations in contemporary learning spaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 6503 Dissertation in Practice Proposal Writing
Description: This course is designed for in-depth support with identifying significant problems of practice in specific professional contexts, writing thorough research proposals to address those problems, understanding the ethical dimensions of doing research, and preparing for the proposal defense phase of a professional doctorate. This course emphasizes theoretical knowledge and practical skills in research design, peer reviewing, academic writing, and presenting work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

EDHS 6993 Graduate Seminar in Education and Human Sciences
Prerequisites: Consent of instructor.
Description: Analysis of philosophy, critical issues, current developments and interrelationships among elements in education and human sciences. Previously offered as HS 6993 and HES 6993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean Education/Human Sciences

Educational Leadership (EDLE)

EDLE 5000 Thesis Or Report
Prerequisites: Consent of instructor.
Description: Master's students may earn up to two hours of credit for a report or six hours of credit for a thesis. Students working on a specialist's report may earn a maximum of 10 hours of credit. Previously offered as EAHE 5000. Offered for variable credit, 1-10 credit hours, maximum of 10 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5253 The Principalship
Prerequisites: 5000-level course in school administration or equivalent.
Description: Strategies, techniques and solutions used by the principal in the administration and leadership of a public school. Previously offered as EDLE 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5323 School Finance
Description: Development of conceptual bases in economics of education, taxation, distribution systems, policy analysis; application to Oklahoma school finance; and introduction to budget development. Previously offered as EDLE 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5473 Supervision of Instruction
Description: Application of modern approaches to instructional supervision through practice in recording and analyzing teacher behavior in actual classroom settings. Clinical and group methods for improving instruction. Previously offered as EDLE 6473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5720 Education Workshop
Description: Analysis of organizational, administrative, and instructional problems by common schools and higher education personnel. Previously offered as EAHE 5720. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5723 Education Law
Description: Study of the legal framework of education (constitutional law, case law, and Oklahoma law) with emphases on church-state issues, tort liability, teachers' rights, and student rights.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5800 Embedded Field Studies Internship
Description: Practicum experiences designed to relate ideas and concepts to problems encountered in educational settings by faculty and administrators.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5813 Leadership Theory and Ethical Decision Making
Description: Developing understanding of leadership theory and issues related to decision-making in educational settings. Exploring leadership and decision-making within an ethical context. Previously offered as EAHE 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5883 Field Studies Internship I
Prerequisites: Consent of instructor.
Description: Directed internship experiences designed to relate ideas and concepts to problems encountered in education by faculty and administrators. Previously offered as EDLE 5880.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5893 Field Studies Intern II
Prerequisites: Consent of instructor.
Description: Directed advance internship experiences designed to relate ideas and concepts to problems encountered in educational organizations by faculty and administrators.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: EDLE 5893 fee of $75 applies.

EDLE 5953 Developing Educational Organizations
Prerequisites: EDLE 5813.
Description: Understanding and critically analyzing conventional and novel approaches to the climate and governance of schools and higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Education degree. Credit given upon completion of the thesis. Previously offered as EAHE 6000. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6003 Educational Ideas
Description: Decision-making processes used in educational systems and use of modern technologies for curricular enhancement and professional development. Previously offered as EAHE 6003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6143 Resources for the Study of Educational Leadership
Description: Introduction to research traditions, tools and processes that are integral to the study of educational leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6243 Connecting Theory and Practice in Administering Schools
Description: Application of research findings and theoretical concepts to best practice in administering educational organizations. Previously offered as EAHE 6243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6343 Problem Solving in School Administration
Description: Identifying and analyzing administrative problems, individually and collectively, in school settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6353 The Superintendency
Description: Integration of theory and practice through examination of roles and responsibilities of the superintendent. Particular emphasis on leadership, communications, and the changing nature of public education. Previously offered as EAHE 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6363 Special Topics in School Finance Policy
Prerequisites: Admission to the Graduate College and EDLE 5323 or equivalent.
Description: Investigation of problems in education finance policy within the interconnected concepts of liberty, equity, equality, adequacy and efficiency.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6393 The Human Factor in Administering Schools
Description: Analysis and critique of current issues in school personnel administration such as recruitment, selection, promotion, morale, salary, staff relations and teacher assessment. Previously offered as EAHE 6393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6423 The Politics of Education
Description: Activities of schools as they relate to the political environment, e.g., voter behavior, change strategies and community power structures. Previously offered as EDLE 6420.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6453 Special Topics in Education Law
Description: Analysis and critique of selected topics in school law relating to public school administration. Previously offered as EAHE 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6483 School Leadership, Culture and Ethics
Prerequisites: Admission to the School Administration doctoral program.
Description: Ethical dilemmas and leadership are explored. Personal ethics are studied in terms of integrity in leadership roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6493 School Improvement/Reform
Prerequisites: Admission to the School Administration doctoral program.
Description: Focus on the theory and practice of school improvement/reform, especially addressing conditions of underachievement and performance gaps among diverse populations. Knowledge and skill related to understanding evaluating, and implementing school improvement/reform practices. Addresses Oklahoma licensure standards related to the provision of effective instructional practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6603 Organizational Theory in Education
Description: Selected organizational typologies, conceptualizations and theoretical frameworks as they relate to organizational behavior and behavior of personnel in organizations. Previously offered as EAHE 6603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6633 School Leadership and Community Collaboration
Description: Promoting student success, school mission and goals through collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources. Previously EDLE 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6650 Problems in Educational Administration
Description: Special administrative problem in common schools or higher education, e.g., school plant, school/community relations, administration and the instructional programs, attrition and finance. Previously offered as EAHE 6650. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6710 Special Problems
Description: Assists administrators with either recurrent or unique problems arising in common schools or in higher education. Emphasizes evaluation and planning related especially to staff, programs and faculty needs. Previously offered as EAHE 6710. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6850 Directed Reading
Description: Directed reading for students with graduate standing. Previously offered as EAHE 6850. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6853 Research Traditions in Educational Leadership
Description: Educational research design (including literature review, elements of a research proposal, and major research paradigms) supporting the field of School Administration. May not be used for degree credit with HESA 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6870 Seminar
Description: Topical issues related to administration and/or higher education, including research techniques available to analyze such topics. Previously offered as EAHE 6870. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6873 Leading Schools with Data
Prerequisites: Graduate standing.
Description: Practical application of decision-making from a systems perspective with a focus on identifying, collecting, organizing, and analyzing school district level data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6883 Internship in Education I
Prerequisites: Consent of instructor.
Description: Directed internship experiences designed to relate ideas and concepts to problems encountered in education by faculty and administrators. Previously offered as EDLE 6880.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6893 Internship in Education II
Prerequisites: Consent of instructor.
Description: Field experiences in a variety of educational work settings.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6910 Practicum
Prerequisites: Consent of instructor.
Description: Required of all candidates for the Specialist in Education degree. Designed to help the student carry out an acceptable field study or research problem. Credit given upon completion of the written report. Offered for variable credit, 1-5 credit hours, maximum of 9 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Educational Psychology (EPSY)

EPSY 1003 Learning to Learn
Description: Learning effective strategies to succeed through online individualized assessment, positive attitude development, habit change, development and self-efficacy and self-regulation. Learning tools include goal setting, developing information skills, questioning, transformational learning, presentation and information use skills. Analyzing class materials, problem solving, creativity, teacher analysis, reflection, developing classroom motivation and appropriate classroom behavior to lead to classroom success.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 1013 Emotional Skills in Learning Success
Description: Striving for academic excellence through self awareness and growth in areas of social and emotional development. Interpersonal and intrapersonal skills, leadership skills, and self-management skills in the context of emotional intelligence theories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 2513 Foundations of Ethical Leadership
Prerequisites: 24 hours in good standing; admission into the UGLC or consent of instructor.
Description: Introduces students to a variety of theoretical views of ethics and leadership studies through the identification of contemporary ethical challenges and the development of foundational leadership skills to meet those challenges. Same course as HESA 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3063 Critical Thinking, Problem Solving, and Creative Processes
Description: Learning theory in developing strategies for promoting critical thinking, problem solving, and creativity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3110 Educational Psychology Seminar
Description: Problems, trends, contemporary topics, and pertinent issues in educational psychology. Concentrated study of selected areas not usually addressed in the undergraduate curriculum. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 3113 Psychological Foundations of Childhood
Description: The child from conception to puberty with focus on educational implications of development in cognitive, affective and psychomotor domains. Previously offered as ABSE 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3213 Psychology of Adolescence
Description: The adolescent from pubescence to adulthood with focus on educational implications of development in cognitive, affective and psychomotor domain. Course previously offered as ABSE 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3413 Child and Adolescent Development
Description: The person from conception through adolescence with focus on education implications of development in cognitive, affective, social, and physical domains. Course previously offered as ABSE 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3533 Motivating Learners
Description: Current practices in learner motivation, school age through adult. Developing positive attitudes and building community in classrooms to stimulate motivation of all learners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4063 Exploration of the Creative Experience
Description: The creative experience in art (visual to performing), articulation (oratory to literature), thought (philosophy to psychology), business (practices to products), leisure (procreation to recreation). Western and Eastern viewpoints. Personal creative development fostered by modeling and by investigation of proven techniques. A wide range of creative endeavor with an experiential approach. Future-oriented applications. Course previously offered as ABSE 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4223 Psychological Foundations of Learning and Instruction
Description: Instructional psychology focusing on the study of teaching and learning theory as part of an instructional program to deal with individual, cultural, and environmental differences. Case studies and group discussion emphasizing motivation, planning, evaluation, classroom problems and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4503 Ethical Leadership for the Common Good
Prerequisites: EPSY 2513 or HESA 2513.
Description: Builds on foundational model of ethical theory and leadership studies through application of ethical theory and leadership skills to specific contexts and evaluation of their results. Same course as HESA 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4533 Competency Motivation
Description: Development of competence through the application of research strategies in achievement motivation. Examines intellectual ability, motives, goals, attributions, competence perceptions and values as they relate to developmental issues, demographics, contextual influences, culture, and self-regulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4743 Learning, Motivation, and Social Justice (G)
Description: Foundational principles of learning, motivation, and global identity; critical analysis of contemporary cultures; and application of learning in addressing global issues of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension

EPSY 5000 Master's Thesis
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the master's program in school and educational psychology. Credit given and grade assigned upon completion and acceptance of the thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5001 Colloquium: Educational Psychology
Description: Discussion of issues related to graduate study in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 5103 Human Development in Psychology
Description: Introduction to basic research and theories of cognitive, emotional and social development. Applications to educational and family settings. Course previously offered as ABSE 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5123 Academic Writing in the Learning Sciences
Description: Introduction to the structure and organization of academic writing appropriate for a Creative Component, project, thesis, or doctoral dissertation. Students will be expected to prepare a proposal for their special topic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5320 Seminar in Educational Psychology
Description: In-depth exploration of contemporary topics in educational psychology. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5403 Issues in Adolescent Development
Description: Current issues in adolescent development in an educational context and culture, including self, family, peers, school and work relationships. Gender differences within culture, race and class examined. Current dilemmas explored using critical theory and action research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5463 Psychology of Learning
Description: Evaluation of, and application to, education, psychology, and other learning contexts of research-based, contemporary psychological theories of human learning. Course previously offered as ABSE 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5473 Psychology of Adult Learning
Description: Analysis of the psychological foundation of adult learning both in and out of learning programs across the lifespan. Differentiates among adults of all ages in terms of practice and performance in a variety of settings, including classroom, community, and work environments. Examines the intellectual, social, cultural, emotional, motivational, and performance components of the psychology of adult learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5553 Motivation in Educational Contexts
Description: An overview of empirically informed theories of motivation from a psychological perspective with emphasis on contextual influences in and outside the classroom. Topics include beliefs about ability and intelligence, goals, casual attributions, the value of academic tasks, and psychological needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5603 Developmental Issues in Instruction
Prerequisites: Three hours in developmental psychology, educational psychology or consent of instructor.
Description: Developmental issues in instruction at all levels from early childhood through adulthood. Specific impacts of developmental stages on the acquisition and retention of cognitive, affective and psychomotor development at various levels and contexts will be examined and applications to instruction will be provided.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5663 Creativity for Teachers
Description: Theoretical origins of creativity and their concomitant applications in the learning environment. Blocks to creative thinking, imagination, imagery, creativity testing, developing ideas and innovations, creative problem solving and teaching techniques and methods to maximize creative potential in all kinds and types of students. Course previously offered as ABSE 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5713 Transpersonal Human Development
Description: Human development in terms of individual consciousness, focusing on the implications of such extraordinary states of consciousness as those associated with hallucinogenic drugs and mystical religious experience. Integration of psychological and religious interpretations of development. Applications to practical problems in education and psychology. Course previously offered as ABSE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5720 Educational and School Psychology Workshop
Description: Workshop on various topics related to educational and school psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5773 Individual Intellectual Assessment
Description: Intensive study of various intelligence and achievement batteries, including the Wechsler scales and the Woodcock Johnson Tests of Achievement. Emphasis and practice in administration, scoring, interpretation. Further emphasis on issues related to report writing, non-discriminatory assessment, and the history of intelligence testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5963 Developing Resources to Support Educational Programs
Description: Development, management and evaluation of programs in intra- and extra-class settings. Program types include parent, volunteer, mentor, tutor, group sponsors in technology, business involvement, curricular enhancement and service learning. Developing community and business interest through public relations, financial development, grantsmanship or resource information sources. Developing Internet resources to support learners. Course previously offered as EPSY 5962.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5983 Instructional Effectiveness in Higher Education
Prerequisites: Graduate standing or consent of instructor.
Description: For teaching assistants in all areas. The many aspects of teaching in higher education. Both theory, e.g., traditional instructional design and practical applications, e.g., how to create a lecture. Issues related to instructional design, development of classroom climate, understanding and assessment of students, classroom practices, materials creation for teaching and development of support systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the doctoral program in educational school psychology. Credit given and grade assigned upon completion and acceptance of the doctoral thesis. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6001 Colloquium II: The Job Search in Educational Psychology and Related Fields
Description: Discussion of issues related to the job search process in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 6043 Adult Development
Description: Theory and research concerning human development during the adult years. Practical applications for serving adult populations in education and education-related settings. Course previously offered as ABSE 6043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6110 Seminar in School Psychology
Description: An assessment of psychological techniques applied to problems encountered in the internship. Course previously offered as ABSE 6110. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6153 Advanced Research in Educational Psychology
Description: Research in educational psychology in areas such as recent trends in the field, exploration of research designs in Educational Psychology, writing and dissemination of research, ethics and collaboration, and development of skills to be competent consumers of the literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6163 Emotion and Cognition
Description: The relationship between emotion and cognition as it relates to knowing and learning. History, wisdom and the interdependence of affect and cognition, the effects of mood on memory, emotion in feminist epistemology, the role of feeling in the writing process, intuition, and narrative thought. Exploration of potential research. Course previously offered as ABSE 6163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6213 Advanced Educational Psychology
Prerequisites: Three hours in developmental psychology or consent of instructor.
Description: Learning and its effect upon coping and adjustment. How learning, environmental and personality factors interact to change human behavior. Course previously offered as EPSY 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6323 Psychological Consultation
Prerequisites: Admission to graduate program in the SAHEP or psychology program.
Description: Models and strategies for the delivery of special services in the schools and other agencies that focus on serving the mental health needs of children, adolescents and adults. The use of consultation as a problem solving alternative to the assessment/label approach. Same course as CPSY 6323, students can receive credit in only one of the courses. Course previously offered as ABSE 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6443 Theories and Problems in Educational Psychology
Prerequisites: Admission to the doctoral program in educational psychology or consent of instructor.
Description: Theoretical foundations and nature of the problems studied in educational psychology; current issues and historical overview.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6460 Internship in Educational Psychology
Prerequisites: Consent of instructor.
Description: May be repeated for credit when work assignment varies. Required of all teaching assistants in educational psychology during the first semester of each new teaching assignment. Includes cooperative planning and evaluation. Course previously offered as ABSE 6460. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6533 Human Motivation
Description: A theoretically-oriented approach to the concept of motivation; essential precursors to human behavior and applications to the solution of real and hypothetical problems. Course previously offered as ABSE 6533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6850 Directed Readings in Educational and School Psychology
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing in educational and school psychology. Course previously offered as ABSE 6850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6880 Internship in Education
Prerequisites: Admission to advanced graduate program and consent of area coordinator.
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Course previously offered as ABSE 6880. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Educational Technology (EDTC)

EDTC 3123 Applications of Educational Technologies
Description: Introduction to the design and development of instruction using educational media and technology in the PK-12 classroom. Materials development, contemporary applications of computers and other electronic systems to instruction. Integration of instructional design, instructional media, and instructional computing. May not be used for degree credit with EDTC 4113. Previously offered as CIED 3122.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4103 Advanced Computing Applications in Education
Description: In-depth exploration of advanced technology use in teaching and learning environments. Examination of current issues of technology use in instructional settings. May not be used for degree credit with EDTC 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4110 Special Topics in Educational Technology
Description: Exploration of contemporary problems or issues in educational technology. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4113 Applications of Media and Technology
Description: Introduction to the application of media and technology to formal and informal learning situations. Intended for non-professional education majors. May not be used for degree credit with EDTC 3123. Previously offered as CIED 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4223 Introduction to Assistive Technologies
Description: Introduction to assistive technologies and the application of assistive technologies in formal and informal learning environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4503 Facilitating Online Learning
Description: Students will apply knowledge of pedagogy, instructional design, learning theory, standards for online teaching, online community building and teaching with technology by developing a proposal for an online course in an area of their choosing. May not be used for degree credit with EDTC 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4753 Introduction to Instructional Design
Description: Introduction to the systematic design of instruction. Topics covered: Analysis, design, development, implementation, and evaluation of instructional materials in a variety of educational settings. Current research, trends and issues in instructional design will be addressed. May not be used for degree credit with EDTC 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4773 Instructional Systems Project Management
Description: Explore essential elements of successful instructional systems project management by defining a project, identifying essential components, developing the project schedule and budget, and managing project quality and risks. Produce complete design documents for an instructional system, including budget, justification, implementation schedule, and evaluation plan.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5000 Master's Report or Thesis
Prerequisites: Consent of instructor.
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 5053 Learning in a Digital Age
Description: Foundational understanding of digital learning including history, definitions, common assumptions, cultural competence, ethical issues, standards, methods, and models to maximize digital learners' experience in educational and corporate settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5103 Advanced Computing Applications in Education
Description: In-depth exploration of advanced technology use in teaching and learning environments. Examination of current issues of technology use in instructional settings. Previously offered as CIED 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5113 Digital Media Production for Instruction
Description: Introduction to the production of digital media for instruction. Topics covered: Instructional design for digital media, message design, use of graphics, multimedia development tools. Current research, trends, tools and issues in media production will also be addressed. Previously offered as CIED 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5123 Academic Writing in the Learning Sciences
Description: Introduction to the structure and organization of academic writing appropriate for a Creative Component, project, thesis, or doctoral dissertation. Students will be expected to prepare a proposal for their special topic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5153 Computer-Based Instruction Development
Description: Examinations of curriculum strategies, related research issues, and techniques for developing computer-based instruction. Students will develop and evaluate computer-based instruction with case studies. Previously offered as CIED 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5203 Foundations of Educational Technologies
Description: A general introduction to the field of Educational Technology. Define, describe, and critically evaluate the foundations, issues and careers in educational technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5303 Digital Games and Simulations in the Classroom
Description: Introduces students to the philosophies, theories, processes, and practices of integrating digital games and simulations into the classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5403 Creativity and Innovation in Educational Technology
Description: In-depth examination of a variety of innovation technologies and engagement in pedagogies and technologies associated with creativity, innovation and invention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5503 Facilitating Online Learning
Description: Apply knowledge of pedagogy, standards for online teaching, online community building, and teaching with technology to design and facilitate online learning environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5703 Advanced Virtual and Augmented Reality for Social Change
Description: Explores evidence-based design/research informed design through the use and application of Virtual Reality (VR) and Augmented Reality (AR) technology using a multidisciplinary approach to solve current societal problems by applying social science practices with innovative technology. Learn how to develop and apply 3D content in VR/AR. Turn your creative ideas into useful applications. This course is open to all graduate students. No prior coding or design experience is required. Same course as DM 5083.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Educ Found Leadersh & Aviation

EDTC 5720 Educ Workshop
Description: For teachers, principals, superintendents and supervisors who have definite problems in instruction or administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 5753 Introduction to Instructional Design
Description: Introduction to the systematic design of instruction. Topics covered: Analysis, design, development, implementation, and evaluation of instructional materials in a variety of educational settings. Current research, trends and issues in instructional design will be addressed. Previously offered as CIED 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5763 Introduction to Assistive Technology
Description: Introduction to assistive technologies and the application of assistive technologies to formal and informal situations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5773 Instructional Systems Management
Description: Principles of management relevant to instructional systems, including, but not limited to: project, resource, quality, change, financial, information technology, human resource, program evaluation, product, knowledge and performance management. Previously offered as CIED 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5783 Learning and Teaching with Mobile Devices
Description: Exploring the potential of learning with mobile devices in formal education settings and factors to consider when designing an effective and innovative mobile learning environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5793 Design-Based Research
Description: Design-Based Research seeks to contribute to theory-building about learning and the design of learning environments. Course provides an examination of the history of this research approach along with related current literature, commentary and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5850 Directed Study
Prerequisites: Consent of instructor.
Description: Directed study for master's level students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6000 Doctoral Dissertation
Description: Required of all candidates to the Doctor of Education degree. Credit is given upon completion of the thesis. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6153 Advanced Computer-Based Instructional Development
Prerequisites: EDTC 5153 or consent of instructor.
Description: Design of user-friendly instructional interfaces and computer-based learning management systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6283 Performance Improvement Technology
Description: Overview of performance improvement, as defined within the field of Educational Technology. Training and non-training interventions to improve performance in learning situations. Sample topics may include needs assessment, motivation systems, compensation systems, job aids, or electronic performance support systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6333 Human Computer Interaction
Prerequisites: EDTC 5153 or consent of instructor.
Description: Human cognitive architecture, information processing, and design of effective educational, computer-based interfaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6423 Trends and Issues in Educational Technology
Description: Selected problems, issues and trends in educational technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6553 Media and Learning in Educational Technology
Description: Exploration of topics from media studies relevant to educational technology, especially online learning. Reading of classic works in media studies in tandem with related contemporary works addressing new developments in educational technology, online learning, online gaming, and social media for learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6613 Instructional Systems Design
Description: Overview of theoretical foundations of the systematic design of instruction and their applications in design practice including analyzing, defining, sequencing, developing, and validating instructional components. Current research, theory, and future directions in design theory and practice will be addressed. Course previously offered as EPSY 6613 and ABSE 6613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6713 Introduction to Learning Sciences
Description: Introduction to the Learning Sciences and its theoretical frameworks, research methods, and current scholarly issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6793 Advanced Design-Based Research
Description: Exploration of current DBR literature, research and research implementations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6880 Internship in Education
Prerequisites: Consent of instructor.
Description: Directed off campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6910 Practicum
Prerequisites: Consent of instructor.
Description: Helps the student carry out an acceptable research problem (practicum) in a local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Electr & Computer Engineering (ECEN)

ECEN 2011 Experimental Methods I
Prerequisites: PHYS 2114 with a "C" or better or concurrent enrollment advisor permission required.
Description: Laboratory associated with ECEN 2714 taken mostly by transfer students who have completed a similar course as ECEN 2714 without the accompanying laboratory. Previously offered as ECEN 3013.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 2233 Fundamentals of Digital Logic Design
Prerequisites: MATH 1813 with a "C" or better or concurrent enrollment.
Description: Introduction to digital logic, logic building blocks, Boolean algebra, two-level realization of logic functions, Karnaugh maps (K-maps) and the Quine-McCluskey method/Heuristics for minimizing the complexity of logic circuits, programmable logic with FPGAs, complex logic building blocks, Finite State Machines (FSMs), FSM design methodology, digital system design, algorithmic design in digital systems, control/datapath partitioning, FSM optimizations, and clocking methodologies. No degree credit for students with credit in ECEN 3233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 2714 Fundamentals of Electric Circuits
Prerequisites: MATH 2153 with a "C" or better and (PHYS 2114 and MATH 2233 and ENSC 2611 with a "C" or better or concurrent enrollment).
Description: Circuit analysis techniques including equivalent networks and mesh/node formulation of network equations; operational amplifiers; RL, RC and RLC transient and steady-state circuit analysis; energy and power; electrical measurements and instrumentation.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3020 Supervised Research Project
Prerequisites: Consent of instructor and ECEN department head.
Description: Supervised research project for qualified students. May be repeated no more than three times for a total of three credit hours. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 3113 Energy, Environment and Economics
Prerequisites: ECEN 3714 with a "C" or better.
Description: Topics relevant to understanding the close relationship between energy use, its impact on the environment, and overall economic implications. Green energy technologies (wind, solar, hydro) will be considered along with conventional techniques. Both conventional and non-conventional energy technologies will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3213 Computer Based Systems in Engineering
Prerequisites: ECEN 2714 and ECEN 2233 and (CS 2433 or CS 2133 or ENGR 1412 or EET 1103), all with a "C" or better.
Description: A comprehensive introduction to technology and applications of microcontrollers/microprocessors in solving engineering problems. Topics include computer principle, computer hardware/software, programming, IO interfacing, communication, memory, data acquisition, data representation, and numerical analysis. Previously offered as ENSC 3213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3314 Electronic Devices and Applications
Prerequisites: ECEN 3714 with a grade of "C" or better and ENSC 2611 with a grade of "C" or better.
Description: Semiconductor electronic components including MOSFETs, BJTs, JFETs, and OpAmps. Emphasis on device models and use of solid state electronic devices to analyze, synthesize and design amplifiers and switching circuits. SPICE simulations are extensively utilized. Basic building blocks for analog and digital applications. Theoretical concepts and methods are demonstrated and reinforced through laboratory exercises. Course previously offered as ECEN 3313.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3513 Signal Analysis
Prerequisites: ECEN 3714 with a "C" or better.
Description: Deterministic signals. Fourier series and Fourier transforms. Impulse response, convolution and correlation. Sampling theorem. Analog modulation techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3613 Applied Fields and Waves I
Prerequisites: MATH 2163 and ECEN 3714 with a "C" or better.
Description: Circuit model of transmission lines, wave propagation, energy transfer, impedance mismatch, and transients. Field analysis of voltage, current, resistance, capacitance, and inductance. Coupled circuits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3623 Applied Fields and Waves II
Prerequisites: ECEN 3613.
Description: Continuation of ECEN 3613. Plane-wave propagation in free space, power flow, reflection and transmission. Guided waves and resonators. Radiation and introduction to antenna systems. Boundary value problem analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3714 Network Analysis
Prerequisites: MATH 2233 and PHYS 2114 and (ECEN 2714 or (both ENSC 2613 and ENSC 2411) or (both ENSC 2613 and ECEN 2011)) with a grade of "C" or better.
Description: Advanced mathematical analysis techniques used in circuit analysis including Laplace transforms, Fourier transforms, and Fourier series. Circuit frequency response, Bode plots, and filters, including passive, active, low-pass, high-pass, and band-pass filters. Theory of linear circuits; two-port circuit models and parameters. Course previously offered as ECEN 3713.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3723 Systems I
Prerequisites: ECEN 3714 and ENSC 2113 with a "C" or better and (MATH 3013 with a "C" or better or concurrent enrollment).
Description: Physical and mathematical modeling of electrical and mechanical dynamic systems. Transient response of first and second order systems. Laplace transform techniques for solving differential equations, transfer functions, frequency response and resonance. Course previously offered as ECEN 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3903 Introduction to Semiconductor Devices
Prerequisites: ECEN 3714 with a grade of "C" or better.
Description: Crystal structure, the quantum theory of solids. The physics of semiconductor materials and the projunction, with an emphasis on applications to semiconductor devices. Same course as PHYS 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3913 Solid State Electronic Devices
Prerequisites: ECEN 3714 with a "C" or better and (PHYS 3313 or ECEN 3903 with a "C" or better).
Description: Solid state physics basis of modern electronic devices. Introductory quantum mechanics. Energy bands in solids. Electronic properties of semiconductors. Junction diodes. Bipolar transistors. Field effect transistor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4010 Special Topics
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a "C" or better or advisor permission.
Description: Engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 4013 Design of Engineering Systems
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better, and ECEN 3613, ECEN 3513, ECEN 3314 and (ENGL 3323 with a grade of "C" or better or concurrent enrollment).
Description: Complete design cycle for several small design projects, each including establishing objectives, synthesis, analysis, construction, testing and evaluation. Use of modern lab equipment and fabrication techniques. Development of communication skills.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4024 Capstone Design
Prerequisites: ECEN 4013 and ECEN 4503.
Description: Continuation of ECEN 4013. Student project teams design, build, test and present results for realistic projects from university and industrial sponsors. Formulation of specifications, consideration of alternative solutions, feasibility considerations, detailed system descriptions, economic factors, safety, reliability, aesthetics, ethics and social impact. Course previously offered as ECEN 4023.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 4030 Undergraduate Professional Practice
Prerequisites: Department Permission Required.
Description: Experience in application of electrical engineering principles to typical problems encountered in industry. Solutions to the problems by student participation in the role of engineer or engineering intern. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 4133 Power Electronics
Prerequisites: ECEN 3714 with a grade of "C" or better.
Description: Power electronic devices, components, and their characteristics; DC to AC conversion; fundamentals of inverters and waveshaping devices; application aspects; control aspects; characteristics and state-of-the-art of advanced power inverter and power conditioning topologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4153 Power System Analysis and Design
Prerequisites: ECEN 3714, "C" or better.
Description: Power system component models from circuit theory. Formulation and design of the load flow model and the optimum economic generator allocation problem utilizing computer methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4213 Embedded Computer Systems Design
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233) and ECEN 3714, all with a grade of "C" or better.
Description: Design of microcontroller/microprocessor-based systems through proper integration of hardware and software. Topics include development process and methodology, sensor interfacing, motor control, networking and wireless communication, embedded operating systems, and Internet of Things (IoT).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4223 Mobile Robotics
Prerequisites: ECEN 3213 and ECEN 3714, both with a grade of "C" or better.
Description: This electrical and computer engineering course introduces the fundamentals of mobile robots to both undergraduate and graduate students. Mobile robots are integrated mechanical, electrical and computational systems functioning in the physical world. Topics include design, locomotion, perception, control, localization and mapping, path planning, and more. Advanced topics will also be discussed. This course aims to provide theoretical and practical experiences to students through both lectures and projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4233 High Speed Computer Arithmetic
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Course covers computer arithmetic as applied to general purpose and application-specific processors. Focus is on developing high-speed arithmetic algorithms and understanding their implementation in VLSI technology at the gate level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4243 Computer Architecture
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Functional organization and hardware design of digital computer systems with emphasis on microprocessor-based systems. CPU organization, features of microprocessors including advanced 32-bit CPU's, memory system design including cache, virtual memory, error detection and correction, I/O operations, including direct memory access and peripheral interface design.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4273 Software Engineering
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. Same course as CS 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4283 Computer Networks
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. Same course as CS 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4293 Applied Numerical Methods for Python for Electrical Engineers
Prerequisites: None. This course is suitable for any student in CEAT who has a basic understanding of programming (CS 1113 Computer Science I) and is willing to spend the time necessary to learn.
Description: This course is an introduction to numerical linear algebra and related numerical methods. Topics include direct and iterative methods for linear systems, eigenvalue decompositions and QR/SVD factorizations, stability and accuracy of numerical algorithms, the IEEE floating-point standard, sparse and structured matrices, and an introduction to machine learning/AI and linear algebra software. Other topics may include nonlinear optimization, numerical integration and differentiation, FFTs, and sensitivity analysis. Problem sets will involve heavy use of the Python environment (little or no prior experience required; you will learn as you go).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4303 Digital Integrated Circuit Design
Prerequisites: ECEN 3314 and (ECEN 2233 or ECEN 3233 with a "C" or better).
Description: Theory of digital and electronics circuits. Digital logic families TTL, IIL, ECL, NMOS, CMOS, GaAs. Large signal models for transistors. Implementation at RAM and ROM. Circuit design for LSI and VLSI.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4313 Linear Electronics Circuit Design
Prerequisites: ECEN 3314.
Description: Overview of semiconductor device physics (MOSFETs and BJTs) and integrated-circuit design environment. Building blocks for analog systems (differential amplifiers, operational amplifiers, output stages, and voltage references). Understanding of frequency response (Bode plot, transfer function, pole-zero analysis, feedback, and stability). Extensive SPICE-based design for performance optimization and design tradeoffs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4353 Communication Electronics
Prerequisites: ECEN 3314.
Description: Introduction to radio-frequency (RF) communication systems with a primary focus on transistor- and circuit-level analysis. Investigations of RF system properties (noise, linearity, and matching) modulation schemes, and transceiver architectures. Operation principles and basic design of low-noise amplifiers, mixers, power amplifiers, and oscillators.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4413 Automatic Control Systems
Prerequisites: ECEN 3723 or (MAE 3723 or MAE 3724).
Description: Properties of feedback control systems, mathematical models of basic components, state-variable models of feedback systems, time-domain analysis, stability, transform analysis, frequency domain techniques, root-locus design of single input single output systems and simple compensation techniques. Same course as MAE 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4493 Artificial Intelligence in Engineering
Prerequisites: ECEN 3714 with a "C" or better.
Description: Elementary concepts of artificial intelligence and its applications in engineering, including but not limited to automation, manufacturing, computer vision, robotics and mechatronics. Emphasis is on deep neural network architectures and learning algorithms along with topics related to machine learning, computer vision and data analytics. Online computer programs, such as Python and AI Libraries, collated from open-source repositories will be given along with hands-on experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4503 Applications of Probability and Statistics to Random Signals
Prerequisites: ECEN 3513.
Description: Concepts of probability, statistics, and random variables necessary for study of signals and systems involving uncertainty and randomness. Applications of probability and statistics to practical problems in electrical and computer engineering including communications, signal processing, image processing, and control systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4523 Communication Theory
Prerequisites: Currently enrolled in ECEN 4503 or have taken ECEN 4503 or both ECEN 3513 and STAT 4033.
Description: Noise in modulation systems. Digital data transmission. Design of optimal receivers. Introduction to information theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4533 Data Communications
Prerequisites: (ECEN 4503 prerequisite or concurrent enrollment) or (ECEN 3513 and STAT 4033).
Description: Signal detection in noise. Tradeoffs between bandwidth signal-to-noise ratio and rate of information transfer. Transmission multiplexing and error handling. Elements of computer network design. Data link protocols.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4613 Microwave Engineering
Prerequisites: ECEN 3613.
Description: Review of EM and transmission line theory. Microwave network theory: Impedance and admittance matrices, scattering matrix and S-parameters, ABCD and transfer matrices. Signal-flow diagrams. Matching circuits and microwave filters. Passive microwave devices: power dividers, hybrids, couplers, resonators, isolators, and circulators. Class projects such as radar, communication, imaging, or sensing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4743 Introduction to Biomedical Engineering Modeling and Systems
Prerequisites: ECEN 3513.
Description: An overview of the field of biomedical engineering and an introduction of the modeling approaches implemented in biomedical engineering. Topics include bio-electronics, biomechanics, compartmental modeling, bio-signal processing, biomedical optics, etc. The course will demonstrate a few of major fields of activity in which biomedical engineers are engaged and modeling approaches are implemented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4763 Introduction to Digital Signal Processing
Prerequisites: ECEN 3513.
Description: Introduction to discrete linear systems using difference equations and z-transforms. Discrete Fourier analysis. Design of digital filters. Sampling theorem. Applications of digital signal processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4773 Real Time Digital Signal Processing
Prerequisites: ECEN 4763.
Description: DSP Processor architectures and programming. A/D, D/A, polled and interrupt-driven I/O. Realtime implementation of FIR/IIR filters, the FFT, and other DSP algorithms on special purpose DSP hardware from Motorola, Texas Instruments and others. Link between DSP theory and practical implementation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4823 Design of Optical Systems
Prerequisites: ECEN 3714 with a "C" or better.
Description: Introduction to optics through the design, construction, and characterization of optical systems. Emphasis on geometrical optics and spectroscopy. Course previously offered as ECEN 3813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4843 Design of Lasers and Systems
Prerequisites: ECEN 3714
Description: Introduction of the design of lasers and optical systems based on lasers including the design, construction, and characterization of lasers. Gaussian beams and optics, laser gain materials, laser cavities, advanced topics. Course previously offered as ECEN 4813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 5000 Thesis
Description: A student studying for the master's degree will enroll in this course for a maximum of six credit hours. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5030 Professional Practice
Prerequisites: Department Permission Required.
Description: Experience in application of electrical engineering principles to typical problems encountered in industry and government engineering design and development projects. Solutions to the problems require participation by the student in the role of junior engineer or engineer-intern. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5060 Special Topics
Prerequisites: Advisor permission.
Description: Engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5070 Directed Studies
Prerequisites: Consent of instructor.
Description: Investigation outside of the classroom of topics not normally covered in lecture courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5080 Fundamental Topics
Prerequisites: Advisor permission.
Description: Fundamental topics that are typically introduced in the senior year curriculum with additional depth and breadth commensurate with the graduate program. Repeat credit may be earned with difference course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5113 Power Systems Analysis by Computer Methods
Prerequisites: ECEN 4153 or Departmental Permission.
Description: Quasi-static control of power systems and analysis of power systems under abnormal operating conditions. Transient stability studies. Models formulated and solutions outlined for implementation on the computer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5123 Engineering Systems Reliability Evaluation
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Techniques and concepts needed for evaluating the long-term and short-term reliability of a system. Topics include static and spinning generation capacity; transmission, composite, interconnected, and dc system reliability evaluations; and power system security. Applications to systems other than power systems included. For students with little or no background in probability or statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5133 Power Electronics and Renewables
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Modeling and control aspects of power electronics for integrating renewable energy systems. Topics covered here will focus on power converter dynamics, indirect converter topologies, PWM technique, sliding mode control of converters, game theory based control, Maximum power point tracking, control of generators for different renewable energy systems. Simulation tools will be discussed as appropriate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5153 Direct Energy Conversion
Prerequisites: Departmental Permission.
Description: Energy conversion techniques and applications; thermo-electrics, thermionics, fuel cells, MHD and other processes involving electrical, mechanical and thermal energies. State-of-the-art developments in direct energy conversion using selected papers from journals and other publications. Gives the student a proper perspective of the possibilities and problems associated with satisfying future energy requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5163 Cyber Physical Systems and Smart Grid
Prerequisites: ECEN 4503 or Departmental Permission.
Description: A comprehensive overview of advanced cyber-physical technologies and ideas that make the power grid smart. Topics covered include: basics of electric power systems; fundamentals of smart grids; the role of measurement, communications and monitoring technologies in smart grids; integrated applications of control and information advancements in a smart grid; Distributed Energy Resources (DERs) including renewable energy resources, energy storage systems, electric vehicles, and demand response; various functions and tools for managing smart grids; and interoperability, standards, and cyber security in smart grids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5193 Power Economics and Regulation
Prerequisites: ECEN 3113 or Departmental Permission.
Description: Natural monopoly, regulated mono-polities. Power pricing. Deregulation and the Energy Policy Act of 1992. Bulk power markets, transmission access and wheeling. Economic dispatch and system operations. Security and reliability. Environmental externalities and Clean Air Act compliance. Procurement of new capacity and integrated resource planning. Co-generators and independent power producers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5223 Digital Systems Testing
Prerequisites: Departmental Permission.
Description: Testing of combinational and sequential circuits. Test generation techniques. Design of reliable and testable circuits and systems. Testing for LSI and VLSI.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5233 Embedded Sensor Networks
Prerequisites: Departmental Permission.
Description: Analysis and design of wireless networks, including the integration of sensing, computation, and wireless communication within an embedded system. Mobile sensor networks and body sensor networks. Real world application and new innovations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5253 Digital Computer Design
Prerequisites: ECEN 4233 or ECEN 4243 or Departmental Permission.
Description: Arithmetic algorithms and the design of the arithmetic/logic unit (ALU). Serial and parallel data processing; control and timing systems; microprogramming; memory organization alternatives; input/output interfaces. Same course as CS 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5263 VLSI Digital Systems Design
Prerequisites: ECEN 4303 or Departmental Permission.
Description: Design of very large-scale digital systems on a single chip. Review of MOS technology. Design rules imposed by fabrication techniques. Systematic structures for control and data flow; system timing; highly concurrent systems. Experimental opportunities available.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5283 Computer Vision
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Fundamental concepts and tools in computer vision. Image formation and camera calibration. Early vision: edge detection, feature extraction, texture analysis. Mid-level vision: clustering, segmentation and object detection. High-level vision: object recognition using principal component analysis (PCA) and video analysis by hidden Markov models (HMMs).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5313 Analog Integrated Circuits
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Advanced studies of analog CMOS IC design with an emphasis on EDA. Topics include bandgap reference, oscillators, PLL, linear regulators, DC-OC converters, low voltage, low power, and energy harvesting techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5333 Semiconductor Devices
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Semiconductor crystal structure and device fabrication, carrier distribution and transport, pn junction and diode, metal-semiconductor heterojunction, MOSFET, BJT and optoelectronic devices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5363 Mixed-Signal Integrated Circuits
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Analysis and design of CMOS mixed-signal IC for VLSI systems. Topics include comparators, switched-capacitor circuits, sample-and-hold, Nyquist and oversampling ADC/DAC, delta-sigma modulation, and digital calibration techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5373 RF Microwave Circuit Design
Prerequisites: ECEN 4613 or Departmental Permission.
Description: Smith chart, single- and multi-port network, filter design, RF/microwave components and modeling, matching and biasing network, amplifier, oscillators and mixers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5413 Optimal Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Optimal control theory for modern systems design. Specification of optimum performance indices. Dynamic programming, calculus of variations and Pontryagin's minimum principle. Iterative numerical techniques for trajectory optimization. Same course as MAE 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5433 Robotics Kinematics, Dynamics and Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Kinematic and dynamic analysis of robot manipulators. Inverse kinematics, motion planning and trajectory generation. Industrial practice in robot servo control. Dynamics and control in the presence of constraints. Actuators and sensors. Force sensors and vision systems. Robotic force control and its applications in industry. Passivity-based control algorithms. Advanced control techniques for motion and force control. Same course as MAE 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5463 Nonlinear System Analysis and Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Failure of superposition of effects; phase-plane analysis; limit-cycles; Lyapunov stability; hyperstability and input-output stability; controllability and observability of nonlinear systems; feedback linearization; robust nonlinear control system design. Same course as MAE 5463. Course previously offered as ECEN 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5473 Digital Control Systems
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Input-output and state-space representation of linear discrete-time systems. Approximate methods in discrete-time representation. Stability methods. Controllability, observability, state estimation, and parameter identification. Design and analysis of feedback control system using frequency-domain and state-space methods. Introduction to optimal control. Same course as MAE 5473. Course previously offered as ECEN 6413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5483 Advanced Mechatronics Design
Prerequisites: MAE 4733 or Departmental Permission.
Description: Optimizing C programming code for microcontrollers using the assembly language instruction set. RS-232 microcontroller communication protocol. Controller Area Network (CAN) communication protocol plus hands-on CAN bus development boards, advanced topics which could include but are not limited to sensor design, real time operating systems, and advanced communication protocols. Same course as MAE 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5513 Stochastic Systems
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Theory and applications involving probability, random variables, functions of random variables, and stochastic processes, including Gaussian and Markov processes. Operations on random variables, transformation of random variables, single and multiple random variables, correlation, power spectral density, and stationary and non-stationary random processes. Random sums and sequences. Response of linear systems to stochastic processes. State-space formulation and covariance analysis. Same course as MAE 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5533 Modern Communication Theory
Prerequisites: ECEN 5513 or Departmental Permission.
Description: Noise as a random process, analog and digital signal detection in the presence of noise, optimum receiver design using signal space concepts and introduction to information theory. Trade-offs between bandwidth, signal-to-noise ratio and the rate of information transfer. Example system designs include earth satellite, deep space and terrestrial communication systems and computer communication networks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5543 Data Transportation and Protection
Prerequisites: Departmental Permission.
Description: Data and its representation; finite field matrices, pseudorandom sequences; information protection; space division networks; synchronization; and channel and error control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5553 Telecommunications Systems
Prerequisites: Departmental Permission.
Description: Surveys the ways and means that voice, data and video are moved long distances. Covers computer networks (Ethernet LAN's, Internet WAN's); telephone systems (PSTN, VoIP and cellular telephony); video (MPEG, H.323, and IPTV); and last mile delivery systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5573 Wireless Communication
Prerequisites: ECEN 5533 or Departmental Permission.
Description: Wireless channel characterization: large-scale and small scale fading. Techniques to combat fading; diversity techniques, coding techniques, CDMA, OFDM, MIMO. Advanced communication systems such as 5G and Beyond cellular systems, mmWave and Teraherz communications, massive MIMO, and UAV-assisted communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5613 Electromagnetic Theory
Prerequisites: ECEN 3623 or Departmental Permission.
Description: First graduate level treatment of classical electromagnetic theory. Wave equation, potential theory, boundary conditions. Rectangular, cylindrical and spherical wave functions. Conducting and dielectric guiding structures. Scattering and radiation. Introduction to numerical techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5623 Antenna Theory
Prerequisites: ECEN 3623 or Departmental Permission.
Description: Fundamental antenna parameters, including directivity, efficiency, radiation resistance, and pattern. Analysis of dipole, loop, aperture, broad- band, and traveling wave antennas. Array theory. Introduction to numerical techniques used in modern antenna design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5633 Radar Theory
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Theoretical treatment of radar principles. Overview of radar systems and techniques, radar equation, integration of signals. Radar cross-section of single and multiple targets. Waveform design, resolution, ambiguities and accuracy. Range, speed and angular measurements. Detection of targets in noise. Statistical description of clutter. Signal processing techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5643 Antennas and Propagation for Wireless Communications
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Aspects of radiowave propagation for fixed and mobile communication systems. Review of Maxwell's equations and plane wave propagation, antenna principles. Reflection, refraction, diffraction, fading and scintillation, attenuation, ducting, diversity. Propagation in a cellular environment. Satellite communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5683 Biomedical Optics
Prerequisites: ECEN 4843 or Departmental Permission.
Description: Biomedical optics, also often termed as biophotonics, is highly interdisciplinary subject on applying light for diagnostic detection and manipulation of biological tissue. This course introduces fundamental concepts and principal technologies of biomedical optics or biophotonics to graduate students and upper-level undergraduate students. The course includes three parts: The first part discusses light-tissue interaction. The second part introduces approaches to modeling photon propagation in tissue. The third part details several representative light-based sensing and imaging technologies for probing biological tissues at different spatial, spectral, and temporal scales for either morphological or functional diagnosis. Topics of therapeutic use of light will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5713 Linear Systems
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Introduction to the fundamental theory of finite-dimensional linear systems with emphasis on the state-space representation. Mathematical representations of systems; linear dynamic solutions; controllability, observability, and stability; linearization and realization theory; and state feedback and state observer. Same course as MAE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5733 Neural Networks
Prerequisites: ECEN 5713 or Departmental Permission.
Description: Introduction to mathematical analysis of networks and learning rules, and on the application of neural networks to certain engineering problems in image and signal processing and control systems. Same course as CHE 5733 and MAE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5743 Deep Learning
Prerequisites: ECEN 5733 or equivalent and Departmental Permission.
Description: Analysis, design, training and applications of deep neural networks. Topics include: fundamental deep network architectures, such as multilayer perceptrons, convolutional neural networks, recurrent neural networks and transformers; deep learning software frameworks, such as TensorFlow and PyTorch; application areas, such as image processing (e.g., object detection, object classification, image segmentation) and sequence processing (e.g., language translation, voice assistants, speech recognition, time series prediction).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5763 Digital Signal Processing
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Discrete-time signals and systems; transform analysis of linear systems; design and implementation of digital filters; analog to digital conversion, quantization effects, and oversampling; discrete Fourier transform and the FFT; Fourier analysis using the DFT; introduction to parametric signal modeling; and practical applications of digital signal processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5773 Intelligent Systems
Prerequisites: ECEN 5713 or Departmental Permission.
Description: Introduction to the state-of-the art intelligent control and system successfully deployed to industrial and defense applications. Emerging intelligent algorithms (e.g., NN, FS, GA, EP, DES); intelligent control architecture (e.g., bottom-up, top-down, seminotics); reinforcement learning and hybrid systems; and case studies and design projects. Same course as MAE 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5783 Medical Imaging
Prerequisites: ECEN 4743 or ECEN 4763 or Departmental Permission.
Description: A comprehensive introduction to the physics and engineering foundations of the standard medical imaging modalities used today. Topics include radiation, radiation-interaction with matter, X-ray radiography, ultrasonography, X-ray computed tomography, image reconstruction and analysis, magnetic resonance imaging, nuclear radiation based imaging, and image monitoring aspects of radiation therapy. The fundamental mathematics underlying each imaging modality is reviewed and the hardware needed to implement each system is examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5793 Digital Image Processing
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Digital image processing including image acquisition, enhancement, restoration, color image processing, morphological processing, segmentation, representation and description.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5803 Geometrical Optics
Prerequisites: PHYS 3213 or Departmental Permission.
Description: Foundations of geometrical optics, geometrical theory of optical imaging, geometrical theory aberrations, image forming instruments. Same course as PHYS 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5823 Physical Optics
Prerequisites: PHYS 3213 or ECEN 4823 or ECEN 4843 or Departmental Permission.
Description: Multiple beam interference, diffractions, imaging, near field optical probes of matter, surface plasmons, light scattering from random media, optical coherence tomography- biomedical applications, negative materials, perfect lenses and super resolution. Same course as PHYS 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5833 Fiber-Optic Communication Systems
Prerequisites: ECEN 4533 or Departmental Permission.
Description: The fundamentals of fiber-optic communication systems are described in detail. Fiber electromagnetic behaviors, laser and LED transmitters, photodetectors and semiconductor receivers and other hardware components are covered. System level design and integration concepts are covered including modulation schemes, multiplexing, dispersion and power budget, sampling, incoherent and coherent detection, error control, and network distribution. A historical framework shows how technical capabilities and growing communication needs forced fiber systems evolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5843 Microelectronic Fabrication
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Contamination control and clean-room, vacuum systems, wafer manufacturing. Photolithography and alternative lithographic techniques. Physical and chemical vapor deposition, oxidation, etching, doping, packaging, formation of semiconductor devices and circuits. A series of Fabrication lab projects is conducted starting from bare silicon wafers to fabricate Optoelectronic circuits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5853 Ultrafast Optoelectronics
Prerequisites: ECEN 5833 or Departmental Permission.
Description: Principles in ultrafast lasers and terahertz radiation are discussed. Topics include generation, propagation, amplification, and measurement of femtosecond optical pulses. Generation, detection, and manipulation of terahertz waves as fundamentals to understand how time-domain spectroscopy and imaging work will be described. Selected advanced topics in ultrafast metamaterials and plasmonics will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5923 Introduction to MEMS
Prerequisites: ECEN 5843 or Departmental Permission.
Description: Fundamentals of Microsystems. Topics include: energy transduction mechanisms, energy dissipation modeling, energy methods, mechanics of small scale, fabrication process design, micromachining, electronic interface.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6000 Dissertation
Prerequisites: Consent of major professor.
Description: Independent research for students continuing graduate study beyond the level of the MS degree. Offered for variable credit, 1-12 credit hours, maximum of 36 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6001 PhD Seminar Series
Prerequisites: Approval of ECEN department head.
Description: Seminar series for PhD studies and research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6050 Preliminary PhD Research and Proposal
Prerequisites: Consent of adviser.
Description: Independent research and report of an advanced electrical engineering problem. Work performed serves as foundation of the oral PhD preliminary exam. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6060 Special Topics
Prerequisites: Advisor permission.
Description: Advanced engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6070 Advanced Directed Studies
Prerequisites: Admission into PhD program and consent of instructor.
Description: Investigation outside of the classroom of topics not normally covered in lecture courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6123 Special Topics in Power Systems
Prerequisites: ECEN 5113.
Description: Selected relevant current topics related to power system operation and planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6253 Advanced Topics in Computer Architecture
Prerequisites: ECEN 5253 or CS 5253.
Description: Innovations in the architecture and organization of computers, with an emphasis on parallelism. Topics may include pipelining, multiprocessors, data flow, and reduction machines. Same course as CS 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6263 Advanced VLSI Design and Applications
Prerequisites: ECEN 5223 and ECEN 5263.
Description: System timing. Designing testable integrated circuits. Specialized parallel processing architectures. Application examples.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6453 Adaptive Control
Prerequisites: ECEN 5473 or ECEN 5713 or MAE 5473 or MAE 5713.
Description: Analysis and design of control techniques that modify their performance to adapt to changes in system operation. Review of systems analysis techniques, including state variable representations, linearization, discretization, covariance analysis, stability, and linear quadratic Gaussian design. On-line parameter estimation, model reference adaptive systems, self-tuning regulators, stable adaptive systems. Same course as MAE 6453. Course previously offered as ECEN 6450.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6483 Robust Multivariate Control Systems
Prerequisites: ECEN 5713 or MAE 5713.
Description: Introduction to multivariable systems: SISO robustness vs. MIMO robustness; multivariable system poles and zeros; MIMO transfer functions; multivariable frequency response analysis; multivariable Nyquist theorem; performance specifications; stability of feedback systems; linear fractional transformations (LFT's); parameterization of all stabilizing controllers; structured singular value; algebraic ricatti equations; H2 optimal control; H-infinity controller design. Same course as MAE 6483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6523 Information Theory
Prerequisites: ECEN 5513 or consent of instructor.
Description: Mathematical theory of information (Shannon theory) including information measure and transmission rates and capacities. Source coding theory including algebraic and error-correcting codes. Design of waiver-forms for noise immunity. Information transfer in learning systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3813 or PHYS 3213 or consent of instructor.
Description: Advanced optics including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Emphasis on ultrashort laser pulses. Same course as CHEM 6803 & PHYS 6803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6810 Photonics II: THz Photonics and THz-TD
Prerequisites: ECEN 6803.
Description: Concepts and techniques of driving electronic circuitry with ultra short laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as CHEM 6810 & PHYS 6810. Course previously offered as ECEN 6811. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6820 Photonics II: Spectroscopy II
Prerequisites: ECEN 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as CHEM 6820 & PHYS 6820. Course previously offered as ECEN 6821. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6823 Advanced Optical Techniques
Prerequisites: ECEN 5853.
Description: State-of-the-art optical devices and research methodologies. Investigation and discussion of contemporary developments in non-linear optical devices and laser applications. Includes both analytical and experimental techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6830 Photonics II: Spectroscopy III
Prerequisites: ECEN 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques, including subnanosecond detectors, picosecond streak cameras, and ultra fast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as CHEM 6830 & PHYS 6830. Course previously offered as ECEN 6831. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6840 Photonics III: Microscopy I
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and non-contact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as CHEM 6840 & PHYS 6840. Course previously offered as ECEN 6841. Offered for fixed credit hours, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6843 Advanced Microelectronic Fabrication
Prerequisites: ECEN 5843.
Description: Photolithography, wet and dry etching, thermal and electron beam evaporation, photomask design using L-Edit, silicon devices processing, quartz devices processing, silicon-on-sapphire devices processing. GaAs devices processing and MEMS devices processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6850 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning probe microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as CHEM 6850 & PHYS 6850. Course previously offered as ECEN 6851. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding/compression. Same course as CHEM 6860 & PHYS 6860. Offered for fixed credit hours, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6870 Photonics IV: Synthesis and Devices I
Prerequisites: ECEN 6803 and ECEN 6840.
Description: Preparation of functional nanostructures and related optical/electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as CHEM 6870 & PHYS 6870. Course previously offered as ECEN 6871. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: ECEN 6803 and ECEN 6840.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence and electro-optics sampling. Same course as CHEM 6880 & PHYS 6880. Course previously offered as ECEN 6881. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: ECEN 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 cleanrooms. Cleanroom operation including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V, Hall, and optical spectral measurement systems. Same course as CHEM 6890 & PHYS 6890. Course previously offered as ECEN 6891. Offered for fixed 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

Electronics Engineering Technology (EET)

EET 1003 Introduction to Microcomputer Programming
Prerequisites: Consent of instructor.
Description: Programming a microcomputer using a spreadsheet and in BASIC. Application of algorithms to solve defined problems and an introduction to the numerical limitations of small machines. Previously offered as ECT 1003.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1101 Fundamentals of DC Circuits Lab
Prerequisites: Consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students who have taken a dc circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1114. May not be used for degree credit with EET 1134 or EET 1104.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

EET 1104 Fundamentals of Electricity
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or Consent of Instructor.
Description: Elementary principles of electricity covering basic electric units. Ohm's law, Kirchoff's law, circuit solutions, network solutions, magnetism, inductance and capacitance. Previously offered as ECT 1104. May not be used for degree credit with EET 1134 or EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1134 Fundamentals of DC Circuits
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students covering basic electrical units, Ohm's Law, Kirchoff's Law, circuit solutions, network solutions, magnetism, inductance and capacitance. May be substituted for EET 1104 and grade of "B" or better and consent of the department. May not be used for degree credit with EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1201 Fundamentals of AC Circuits Lab
Prerequisites: "C" or better in EET 1104 OR "C" or better in EET 1134 or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students who have taken an ac circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1214. May not be used for degree credit with EET 1214 or EET 1244.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

EET 1214 Fundamentals of AC Circuits
Prerequisites: ("C" or better in EET 1104 OR "C" or better in EET 1134) AND ("C" or better in MATH 2123 OR "C" or better in MATH 2144) or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students covering basic electrical units, The use of network theorems and phasors, coupled circuits, resonance, filters and power will be studied. May be substituted for EET 1244 with grade of "B" or better and consent of the department. May not be used for degree credit with EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1244 Circuit Analysis I
Prerequisites: ("C" or better in EET 1104 OR "B" or better in EET 1134) AND ("C" or better in MATH 2123 OR "C" or better in MATH 2144) OR consent of instructor.
Description: Analysis of AC electric circuits. The use of network theorems and phasors, coupled circuits, resonance, filters, and power. Course previously offered as ECT 1244. May not be used for degree credit with EET 1214 or EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2303 Technical Programming
Prerequisites: Consent of instructor.
Description: Introduction to machine programming using industrial standard languages, emphasis on problems from science and technology. Course previously offered as ECT 2303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 2544 Pulse and Digital Techniques
Prerequisites: "C" or better in EET 1104 or "B" or better in EET 1134 OR ("C" or better in ENSC 2613 and ENSC 2411A) OR equivalent. Prerequisites may be taken concurrently.
Description: Electronic circuits used in digital control and computation. Pulse generation, Boolean algebra and logic circuits. Course previously offered as ECT 2544.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2633 Solid State Devices and Circuits I
Prerequisites: ("C" or better in EET 1244 OR "B" or better in EET 1214 OR ("C" or better in both ENSC 2613 AND ENSC 2411)) AND ("C" or better in MATH 2123 OR MATH 2144).
Description: Diodes, Circuit protection, wave shaping, rectifiers, load switching, and power supplies. Transistors and Op amps and their applications. Course previously offered as ECT 2635 and EET 2635.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2643 Solid State Devices and Circuits II
Prerequisites: EET 2633.
Description: A continuation of EET 2633. Transistors and their applications - amplifiers. Op-amp circuits, comparators, instrument amplifiers, and filters and their analysis.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3005 Electronics Analysis I
Prerequisites: EET 1244 and EET 2544 and EET 2635.
Description: Extensive use of mathematics in analyzing discrete, linear device, linear systems and non-linear circuits. Development of the analytic skills necessary for upper-division work. The use of basic calculus in circuit analysis. Must obtain a "C" or better before admission to other 3000 level EET courses. Intended for transfer and returning students. Enrollment by adviser consent.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3104 Elements of Electricity and Electronics
Prerequisites: MATH 1513.
Description: Essentials of electricity, controls, and electronics for non-majors. No credit for EET majors. Course previously offered as ECT 3104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3113 Circuit Analysis II
Prerequisites: (EET 1244 with a grade of "C" or better OR EET 1214 with a grade of "B" or better AND EET 2635 OR EET 2633 with a grade of "C" or better AND MATH 2133 with a grade of "C" or better OR MATH 2153 with a grade of "C" or better) or (ENSC 2613 and ENSC 2411 with "C" or better).
Description: Application of elementary switching functions and LaPlace transforms to electronic circuit analysis. Circuit analysis in the S-plane, transfer functions and the application of circuit analysis software. Course previously offered as ECT 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3123 Project Design and Fabrication
Prerequisites: ("C" or better in EET 2544 AND ("C" or better in EET 2635 OR "C" or better in EET 2633)) OR ("C" or better in ENSC 2613 and ENSC 2411 AND (a "C" or better in EET 2635 OR EET 2633)) OR Instructor Approval.
Description: Methods of designing, analyzing and fabricating electronic circuits using standard software packages. Heat transfer characteristics and problem solutions are included. Course previously offered as ECT 3124 and EET 3124.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3253 Microprocessors I
Prerequisites: EET 2544.
Description: An introduction to microcontrollers and their uses in embedded applications. Topics include system architecture, assembly language, structured programming, memory systems, user I/O, timers, peripherals, etc. Course previously offered as ECT 3254 and EET 3254.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3263 Microprocessors II
Prerequisites: EET 2303 with a grade of "C" or better and ((EET 3254 or EET 3253) with a grade of "C" or better).
Description: A continuation of EET 3253. Programming and interfacing of microcontrollers in embedded application, including interrupts, EEPROM, serial programming, interfacing, power management, algorithms, stepper motor control. Course previously offered as ECT 3264 and EET 3264.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3303 Python Programming for Technology and Engineering
Prerequisites: MATH 2123 or MATH 2144 plus previous programming experience in any language.
Description: The Python programming language including syntax, collections, modules, object-oriented programming, functions, and graphical user interfaces with emphasis on applications in technology and engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3354 Communication and Signal Processing
Prerequisites: "C" or better in (EET 2635 or EET 2643) and "C" or better in EET 3423.
Description: Bandpass signaling principles and circuits. The Fourier transform; AM, SSB, FM, and PM signaling; binary modulated bandpass signaling (FSK and PSK); superheterodyne receiver; phase locked loop (PLL); modulators and mixers; frequency multiplication; special purpose IC's. Course previously offered as ECT 3354.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3363 Data Acquisition
Prerequisites: "C" or better in EET 2544 AND "C" or better in EET 2635 OR EET 2633.
Description: Methods used to convert physical variables to digital signals and vice versa. Signal conditioning, digital-to-analog converters, analog-to-digital converters, sample-and-hold circuits, sensors, and transducers. The use of computers in data acquisition and signal processing. Course previously offered as ECT 3363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3423 Applied Analysis for Technology
Prerequisites: MATH 2133 with a grade of "C" or better OR MATH 2153 with a grade of "C" or better.
Description: Applications of elements of matrix algebra, ordinary differential equations, Fourier series, and infinite series to problems in engineering technology. Previously offered as GENT 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3523 Advanced Logic Circuits
Prerequisites: EET 2544 with a grade of "C" or better.
Description: Computer-based design, simulation and implementation of digital/mixed-signal systems using programmable logic, field programmable gate arrays, ASICs and system-on-chip technology. Previously offered as EET 3524.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3533 Introduction to Telecommunications
Prerequisites: "C" or better in EET 2544 AND "C" or better in EET 2635 OR EET 2633.
Description: Introductory course to the field of telecommunications. Study of the various technologies and how the application of these technologies work together to form functioning systems and networks.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3713 Introduction to Electric Power Technology I
Prerequisites: ("C" or better in EET 1244 OR "B" or better in EET 1214 AND ("C" or better in MATH 2133)) OR ("C" or better in ENSC 2613 AND ENSC 2411).
Description: Physical principles of electromagnetic and electromechanical energy conversion devices and their application to conventional transformers and rotating machines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3723 Introduction to Electric Power Technology II
Prerequisites: "C" or better in EET 3713.
Description: Physical principles of electromagnetic and electromechanical energy conversion devices and their application to conventional transformers and rotating machines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3803 Fundamentals of Mechatronics
Prerequisites: Grade of “C” or better in EET 2635 OR Grade of "C" or better in EET 2633.
Description: Fundamentals of mechatronic systems and components. Different modelling approaches used for mechatronics systems, sensors and actuators, data acquisition and interfacing, signal conditioning, and PLC’s. Previously offered as GENT 3503. Same course as MET 3803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4050 Advanced Electronic Problems
Prerequisites: Junior standing and consent of head of department.
Description: Junior standing and consent of head of department. Special problems in the electronic area. Course previously offered as ECT 4050. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

EET 4314 Elements of Control
Prerequisites: "C" or better in EET 3113 AND "C" or better in EET 3363 AND "C" or better in EET 3423.
Description: Principles of analog and digital control, with emphasis on the analysis of feedback control systems in their various conceptual configurations. Application of feedback control theory to the analysis and design of present day circuits and systems. Use of circuit analysis software. Course previously offered as ECT 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4323 Applied Artificial Intelligence
Prerequisites: "C" or better in EET 3303 AND "C" or better in EET 4813 AND ("C" or better in STAT 4033 OR "C" or better in STAT 4033).
Description: The course will follow a project based learning approach to introduce students with the theoretical and implantation of artificial intelligence algorithms. Topics include supervised learning, unsupervised learning, and deep reinforcement learning.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4363 Digital Signal Processing
Prerequisites: "C" or better in EET 3354 AND "C" or better in EET 3363.
Description: Introduction to Digital Signal Process. Theoretical development of Fourier transforms, IIR and FIR filters. Significant Design and programming projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 4514 Advanced Telecommunication Topics
Prerequisites: "C" or better in EET 3533.
Description: Study of data transmission techniques between digital electronic devices.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4654 Microwave Techniques
Prerequisites: "C" or better in EET 2635 OR EET 2633 AND "C" or better in EET 3354.
Description: Study of topics pertaining to VHF behavior of circuits and systems. Transmission line theory: wave equations, SWR, impedance calculations and transformations, and lossy lines. Extensive use of the Smith chart to solve transmission line problems. Introduction to Maxwell's equations, with emphasis on steady state. Wave propagation in rectangular waveguides. Introduction to antennas. Modeling of transistors at VHF, UHF, and microwave frequencies. Design and analysis of transistor amplifiers at VHF using y and s parameters. Designing LC impedance matching networks. Previously offered as ECT 4654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4803 Mechatronic System Design
Prerequisites: Grade of "C" or better in EET 3423 and EET 3803 (can be concurrent enrollment in EET 3423 with instructor approval).
Description: Modelling of mechanical, electrical, and hydraulic components. Feedback control systems, electro-hydraulic drives, electrical drives, and microcontroller programming. Previously offered as GENT 4503. Same course as MET 4803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4833 Industrial Project Design I
Prerequisites: ("C" or better in EET 3123 or EET 3124 AND ("C" or better in EET 3363 OR concurrently enrolled in EET 3363 with instructor approval)) OR ("C" or better in EET 3363 AND 10 credit hours of upper-division EET courses).
Description: Course mirrors the design process in industry. Topics covered are design team formation, identify objectives, define design specifications, write specifications, create a state of work and Gantt chart, create a project budget, perform a preliminary design review, design prototype. Previously offered as EET 4832 and ECT 4832.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4843 Industrial Project Design II
Prerequisites: "C" or better in EET 4833 OR a "C" or better in ENGR 4403 OR ENGR 4404.
Description: Student continues in the project steps of Change Board Review, Critical Design Review, developing & writing test specs., product fabrication and testing, formal technical report submission and outcomes assessment exam. May be substituted with ENGR 4403 OR ENGR 4404.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4903 Mechatronics of Autonomous Systems
Prerequisites: "C" or better in EET 3803 OR "C" or better in MET 3803.
Description: The course will follow a project based learning approach to introduce students with the mechatronics of autonomous systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

Engineering & Technology Mgmt (ETM)

ETM 4173 Cost Control and Analysis for Engineering and Technology Professionals
Prerequisites: IEM 3503 or IEM 3513 or permission of the department.
Description: Presents the fundamental concepts, methods, strategies and terminology necessary for engineers and engineering managers to interpret financial data properly. The information is designed to enable engineers and project managers to prepare, appraise, evaluate and approve financial plans to accomplish specific departmental and company objectives. May not be used for degree credit with ETM 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5110 Seminar
Prerequisites: Admission to the master's program or consent of instructor.
Description: Guided study in a topic area selected to enhance a student's program. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

ETM 5111 Introduction to Strategy, Technology and Integration
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Introduces students to the discipline of engineering and technology management, emphasizing the importance of strategy, technology, and integration, where timing of products and services are keys to market success.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5133 Capstone to Strategy, Technology and Integration
Prerequisites: Enrolled in last semester of MSETM program or consent of advisor.
Description: Independent analysis of a business problem. Student prepares a proposal and report that makes substantive use of MSETM material, and is a notable and relevant contribution to the student's organization. Readings and discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5143 Strategic Decision Analysis for Engineering and Technology Managers
Prerequisites: Admission to MSETM program or consent of instructor.
Description: Introduction to analytical concepts and procedures engineering and technology managers can use to strategically allocate resources to achieve business objectives. Strengths and weaknesses of alternative analytical procedures to evaluate alternative resource allocation decisions are outlined. Theoretical foundations, data requirements, application and strengths and weaknesses of cost-benefit analysis techniques when making strategic management decisions are evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5153 Foundations of Engineering Management
Prerequisites: Admission to MSETM program or consent of instructor.
Description: Principles and practices of the management of engineering and technology activities. Focus is on the tools and methods for solving problems in service and industrial systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5163 Business Innovation and Technology
Description: Advanced study of innovation and technology in a business setting. Strategic development of internal and external innovation. Planning, implementation, evaluation and control technology. No degree credit for those with credit in MGMT 5553 Management of Technology and Innovation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5173 Cost Control and Analysis for Engineering and Technology Professionals
Prerequisites: IEM 3503 or IEM 3513 or permission of the department.
Description: Presents the fundamental concepts, methods, strategies and terminology necessary for engineers and engineering managers to interpret financial data properly. The information is designed to enable engineers and project managers to prepare, appraise, evaluate and approve financial plans to accomplish specific departmental and company objectives. May not be used for degree credit with ETM 4173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5211 Enterprise Integration
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Conceptualizing, designing and operating advanced manufacturing systems within an integrated enterprise-wide framework. Recent developments in computer and communication technologies and conceptual breakthroughs regarding the nature and behavior of integrated enterprises.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5221 Engineering Teaming
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Management and group issues inherent in the application and implementation of high performing work teams. The team's roles in improving organizational performance, along with the best practice procedures and techniques that increase team effectiveness.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5231 Benchmarking
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Benchmarking as an effective approach to study and adopt or adapt methodologies representing best specific practices from any industry; or identify and assess performance based on equivalent and common measures, usually from those in the same or similar industries, including competitors.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5241 Strategic Project Management
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Overview of traditional project management concepts and techniques (i.e., Gantt charts, PERT, CPT) along with several technical issues related to their effective use. Fundamental nature of the problems associated with several technical issues related to their effective use. Fundamental nature of the problems associated with effectively managing and coordination of multiple discrete projects within an overall systems integration initiative. A framework for addressing these problems.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5253 Engineering Problem Solving and Decision-Making
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Processes and tools for problem solving and decision making in technical organizations. Focus on issues involving both quantitative and qualitative factors, where the quantitative factors are the result of an engineering analysis. Risk and systems analysis tools provide a fundamental background to understanding the context in which technical decisions are made. Concentration on general systems theory as developed by Ludwig von Bertalaffy. Course previously offered as ETM 5251.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5271 Technology Forecasting and Assessment
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: A framework and analytical tools for developing technological foresight. Technology monitoring, forecasting and assessment in the context of a family of emerging technologies.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5283 Strategic Planning
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Continuous and systematic process of thought about the future, resulting in a plan or specific course of action for communicating, coordinating and controlling activities. Strategic, long-range, tactical, operational, contingency and performance planning. Course previously offered as ETM 5282.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5291 Failure Mode and Effects Analysis in Design
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: A design technique for reducing risk and improving reliability of a system, design or process. Potential failures in any of these studied methodically during design. The concepts, tools and techniques applicable to any product or process.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5311 Value Engineering
Prerequisites: Admission to the ETM program or consent of instructor.
Description: The application of Value Engineering (also known as Value Analysis, Value Methodology) to improve customer value for a project, process, or product during or after engineering design. The development of VE, its objectives, definitions and methodologies, the use of the VE system, and its range of application. VE's use for improving performance reducing life cycle cost.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5341 Leadership Strategies for Technical Professionals
Prerequisites: Admission to the ETM program or consent of instructor.
Description: Leadership strategies, principles, styles and dynamics that must be understood by technical professionals engaged in the creation of products, processes, and services in technology-based organizations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5351 Planning Technical Projects
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Techniques and tools for project definition, staffing, scheduling, resource allocation, and time estimation. Behavioral and quantitative dimensions of project management. Performance measures of project progress and completion.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5361 Managing Virtual Project Teams
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: The management and group issues inherent in the application and implementation of effective teamwork in virtual work-spaces. The appropriate use of virtual team issues and challenges associated with effective teamwork; virtual team structures, process, and technology facilitation skills; group dynamics; and team motivation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5371 Ethics for Practicing Engineers
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: A values-based approach to professional ethics and its application to the decision-making in a technology-intensive environment. Ethical concerns related to the expectations of stakeholders.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5391 New Product Introduction and Commercialization
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Elements of the new product introduction (NPI) process and its impact or business strategy and planning. Organizational resources required for NPI and tools for determining commercial viability.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5411 Engineering Economic Analysis
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Quantitative evaluation of investment alternatives. Basis for comparison of alternatives, including present worth, annual worth, rate of return and payout period methods. Decision-making among capital constrained and unequal-life projects. Benefit-cost and cost effectiveness analysis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5461 Intellectual Property Management
Prerequisites: Admission to MS in ETM program or consent of instructor.
Description: Overview of intellectual property law and management of intellectual property. Exploration of ways to manage intellectual property from conception through production and licensing. Types of intellectual property and associated legal issues and management processes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5471 Introduction to System Safety
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: System safety as a discipline in research, development and acquisition of systems, sub-systems and components. The history and methodologies of mishap prevention including the development of system safety management and engineering processes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5481 Sustainable Enterprise Strategies
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: The principles of sustainability in the context of industrial enterprises. The implications of sustainability in design of products, industrial systems and infrastructure. The importance of life cycle cost analysis as a key engineering economy tool.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5491 ISO 9000
Prerequisites: Admission to the MSETM program or departmental permission.
Description: A detailed look at the requirements of ISO 9001:2008 from a systems perspective. The relationship between ISO 9001, ISO 9000, ISO 9004 and industry-related standards. Implementation and improvement of quality management systems (both high quality and typical methods).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5511 Capstone Preparation
Prerequisites: Admission to the MSETM program and at least 17 hours earned toward MSETM degree or departmental permission.
Description: Introduction to the requirements for the ETM Capstone Project, including problem statements, strategic implications, management systems, and problem metrics. Emphasis is placed on persuasive technical communication.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5521 Quick Response Manufacturing
Prerequisites: Admission to the MSETM program or departmental permission.
Description: Introduction to QRM, an enterprise-wide strategy for lead-time reduction. Discussion of the four core concepts of QRM - realizing the power of time, rethinking organizational structure, understanding and exploiting systems dynamics, and implementing a unified strategy enterprise-wide. Definitions of manufacturing critical-path time (MCT) map. Focused target market segment (FTMS), and material control strategy POLCA. Case studies and MPX software.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5531 Contract Law in Engineering and Technology
Prerequisites: Graduate standing.
Description: This course will provide engineers and architects with a background in common law as it applies to contracts. Topics will include concepts such as offer, acceptance, consideration and breach; contracts under the Uniform Commercial Code; express and implied warranties; and employment contracts.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5943 Lean Sigma Implementation
Prerequisites: IEM 5113, admission to the MSETM program or departmental permission.
Description: Introduction to the implementation skills necessary to successfully apply lean manufacturing and six sigma concepts and manage continuous improvement within a small to mid-sized firm. Successfully combining leadership, organizational dynamics, and skills in meeting customer expectations. Planning, applying, and monitoring these learned skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

Engineering (ENGR)

ENGR 1000 Lower Level Special Topics
Description: Special Topics sessions taught by CEAT faculty members targeted to underclassmen. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 1111 Introduction to Engineering
Description: An introduction to the study and practice of engineering. Skills for students in CEAT; expected engineering student behavior; tools needed by CEAT students; and the role of engineers in society. An introduction to engineering ethics; safety issues; and the relationship of engineering to social, global and contemporary issues. Student enrichment opportunities in the CEAT. May not be used for degree credit with ENGR 1113. Same course as UNIV 1111.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Dean of Engineering

ENGR 1113 Introduction to Engineering Mathematics
Prerequisites: High school algebra or MATH 0123 or equivalent.
Description: This course focuses on applications of engineering mathematics to analysis and design problems across disciplines of engineering. Application of algebra, trigonometry, linear systems of equations, and basic calculus are illustrated through hands-on laboratory experiments and design projects. May not be used for degree credit with ENGR 1111.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Engineering

ENGR 1322 Engineering Design with CAD
Description: Introduction to engineering design using modern design methodologies and computer-aided tools. Design, construction and testing through participation in a multidisciplinary team-based design project contest.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Engineering

ENGR 1332 Engineering Design with CAD for MAE
Description: Introduction to engineering design using modern design methodologies and computer-aided tools appropriate for mechanical and aerospace engineering. Design, construction and testing through participation in a multidisciplinary team based design project contest.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Engineering

ENGR 1412 Introductory Engineering Computer Programming
Description: Programming to solve problems typical of practice in engineering. Techniques and methods.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Engineering

ENGR 2030 Co-op Industrial Practice I
Prerequisites: Sophomore standing and permission of Co-op coordinator.
Description: Pre-engineering industrial practice. Written reports as specified by adviser. Application of credit to meet degree requirements varies with level and department. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering
Additional Fees: Engineering Co-Op Fees Waived fee of $-194.90 per credit hour applies.

ENGR 2100 Orientation Projects
Prerequisites: Pre-engineering standing.
Description: Enrollment in independent study or small groups. Projects to assist students with special needs to adjust to engineering curriculum. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering

ENGR 2400 Engineering Lab Topics
Prerequisites: ENGR 1111 or BAE 1112 or ARCH 1112 or CMT 1213 and enrolled as a CEAT student or permission of the instructor.
Description: Engineering lab topics developed in relationship to ENSC or ENGR courses to provide hands-on interdisciplinary learning. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENGR 2421 Engineering Data Acquisition Controls Lab
Description: Laboratory course that provides hands-on learning regarding topics that engineering students will encounter in CEAT and throughout their careers. The course is "signal" based and will cover core data acquisition and controls utilizing LabVIEW software. Students will develop the skills required to interface with sensors to acquire data and actuate to control systems.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENGR 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds different intellectual dimension to the designated course(s).
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering
General Education and other Course Attributes: Honors Credit

ENGR 3030 Co-op Industrial Practice II
Prerequisites: Junior standing and permission of Co-op coordinator.
Description: Pre-engineering industrial practice. Written reports as specified by adviser. Application of credit to meet degree requirements varies with level and department. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering
Additional Fees: Engineering Co-Op Fees Waived fee of $-194.90 per credit hour applies.

ENGR 3061 Domestic Scholars Experience
Prerequisites: Consent of the coordinator of CEAT Student Services.
Description: Participation in the domestic scholars experience.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 3080 International Experience
Prerequisites: Consent of the associate dean of the college.
Description: Participation in a formal or informal educational experience outside of the USA. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering

ENGR 3090 Study Abroad
Prerequisites: Consent of the Study Abroad office and associate dean of the college.
Description: Participation in an OSU reciprocal exchange program. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering
Additional Fees: Study Abroad fee of $200 applies.

ENGR 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering
General Education and other Course Attributes: Honors Credit

ENGR 4010 Engineering Problems and Design
Prerequisites: Permission of the instructor.
Description: Special projects and independent study. Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering

ENGR 4030 Co-op Industrial Practice III
Prerequisites: Senior standing and permission of Co-op coordinator.
Description: Pre-engineering industrial practice. Written reports as specified by adviser. Application of credit to meet degree requirements varies with level and department. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering

ENGR 4043 International Engineering Service Learning I (G)
Prerequisites: Approval of instructor.
Description: International engineering service learning experience. Project design, construction, implementation and training to provide permanent answer to clients' needs. Emphasis on the development of culturally acceptable engineering designs. Includes classroom lectures, hands-on design, writing assignments and travel to foreign country. For both engineering and non-engineering majors.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering
General Education and other Course Attributes: International Dimension

ENGR 4053 International Engineering Service Learning II (G)
Prerequisites: ENGR 4043 and approval of instructor.
Description: A continuation of ENGR 4043. International engineering service learning experience. Project design, construction, implementation and training to provide permanent answer to clients' needs. Emphasis on the development of culturally acceptable engineering designs. Includes classroom lectures, hands-on design, writing assignments and travel to foreign country. For both engineering and non-engineering majors.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering
General Education and other Course Attributes: International Dimension

ENGR 4060 Topics in Technology and Society
Description: Problems of society relating to technology and added problems stemming from their solution. Minimal reliance on mathematics; for engineering and non-engineering students. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Engineering

ENGR 4061 CEAT Scholars Study Abroad (G)
Prerequisites: Permission of instructor.
Description: Comparison of technologies, history, culture and economic systems between the U.S. and another country or countries. Includes both classroom and travel for on-site study.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering
General Education and other Course Attributes: International Dimension

ENGR 4063 Study Abroad: Issues of Engineering, Architecture, Technology & Culture in an Intl Context (I)
Prerequisites: Sophomore standing and permission of the Associate Dean of Academics and the Study Abroad Office.
Description: Study abroad experience led by CEAT faculty with a goal of developing a deeper understanding of cultural values and perspectives outside of the United States related to engineering, architecture, technology.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Dean of Engineering
General Education and other Course Attributes: International Dimension

ENGR 4073 Technology and Culture of Italy
Prerequisites: Approval of instructor.
Description: Examination of the technology, history and culture of Italy, with an emphasis on the development of cultural competency. Analysis of similarities and differences in professional practices. Includes classroom lectures, writing assignments and travel to Italy. Minimal reliance on mathematics. For both engineering and non-engineering majors.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 5 Other: 4
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENGR 4083 Technology and Culture of Brazil
Prerequisites: Approval of instructor.
Description: Examination of the technology, history and culture of Brazil, with an emphasis on the development of cultural competency. Analysis of similarities and differences in professional practices. Includes classroom lectures, writing assignments and travel to Brazil. Minimal reliance on mathematics. For both engineering and non-engineering majors.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 5 Other: 4
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENGR 4093 Technology and Culture of France
Prerequisites: Approval of instructor.
Description: Examination of the technology, history and culture of France, with an emphasis on the development of cultural competency. Analysis of similarities and differences in professional practices. Includes classroom lectures, writing assignments and travel to France. Minimal reliance on mathematics. For both engineering and non-engineering majors.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 5 Other: 4
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENGR 4103 Impact of Law on Engineering Practice
Prerequisites: Junior standing or consent of instructor.
Description: Principles and impact of U.S. and international laws and regulations on technical professionals, including the impact of environmental regulations, intellectual property laws, tort claims, and product liability on the design, research and oversight of technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4113 Intellectual Property Law for Technical Professionals (S)
Prerequisites: Junior standing or consent of instructor.
Description: Law and regulations of patents and other intellectual property protection methods. Impact of statutory and common law on the practice of technical professionals and how they can exploit intellectual property in their daily work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4123 Tort and Products Liability Law for Technical Professionals (S)
Prerequisites: Junior standing or consent of instructor.
Description: Legal liability of the work product and duties of technical professionals to the public. Relevant statutory, regulatory and common law relating to torts, specifically products liability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4133 Environmental Regulation for Technical Professionals (S)
Prerequisites: Junior standing or consent of instructor.
Description: Environmental laws and regulations are omnipresent in the practice of engineering, science and architecture. Survey of the environmental laws and regulations affecting the practice of these professions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4163 Study Abroad: Issues of Engineering, Architecture, Technology, Culture & Aesthetics
Prerequisites: Sophomore standing and permission of the Associate Dean of Academics and the Study Abroad Office.
Description: Study abroad experience led by CEAT faculty with a goal of developing a deeper understanding of cultural values and perspectives, and aesthetics, outside of the United States related to engineering, architecture, technology.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Dean of Engineering

ENGR 4201 Principles of Nuclear Engineering
Description: The nuclear enterprise, radiation, biological effects of ionizing radiation, nuclear reactor power plants, radioactive waste disposal, the fission process, food irradiation activities, applications of nuclear power in space, approaches to radiation detection, thermonuclear fusion, and nuclear weapons and proliferation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4203 Nuclear Technologies in Society: Fulfilling Madame Curie's Dream
Description: Introduction to applications of nuclear science and technology and the radiation principles governing these applications. Problem-based learning environment. Class assignments are web-based and include reference materials and modules to be completed by students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4211 Introduction to Nuclear and Radiation Engineering Concepts
Description: Aspects and applications of nuclear and radiation engineering/physics. History of nuclear development, basic concepts of radiation and radioactivity, radioactive waste management, global warming and the impact of nuclear power plants, industrial applications, health physics, nuclear medicine, job opportunities at power plants, graduate school and national labs.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4213 Elements of Nuclear Engineering
Prerequisites: ENGR 4201, ENGR 4211 or ENGR 4203 and MATH 2163, PHYS 2114.
Description: Nuclear engineering concepts and applications, including nuclear reactions, radioactivity, radiation interaction with matter, reactor physics, risk and dose assessment, applications in medicine, industry, agriculture and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4223 Nuclear Reactor Engineering
Prerequisites: ENGR 4213 and MATH 2233.
Description: Physics governing nuclear reactors and the design principles for commercial nuclear power plants. Reactor designs currently operating in the power industry. Generation III and Generation IV reactor designs are also discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4233 Energy Systems and Resources
Prerequisites: ENGR 4213.
Description: Energy systems, renewable and non-renewable energy sources, and advances in energy applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4243 Radiation Protection and Shielding
Prerequisites: ENGR 4213 and MATH 2233.
Description: Radiation protection, doses, associated risks, and exposure limits; properties of natural and other radiation sources, and evaluation of internal and external doses; and techniques for shield design including ray, point kernal, and transport theories for both neutrons and gamma rays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4253 Nuclear Reactor Analysis
Prerequisites: ENGR 4213 and MATH 2233.
Description: Fundamental physical principles, concepts and modeling techniques for analysis and design of nuclear reactors. Prepares students to analyze nuclear reactors including aspects of performance, dynamics and safety and to either develop new designs or to assess existing or proposed designs based upon fundamental understanding of reactor physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4263 Nuclear Reactor Theory
Prerequisites: ENGR 4243.
Description: Introduction to neutron diffusion theory, neutron moderation, neutron thermalization, and criticality conditions of nuclear reactors. Distance education only.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4273 Probabilistic Risk Assessment
Prerequisites: ENGR 4213.
Description: This course is a detailed introduction to neutron diffusion theory, neutron moderation, neutron thermalization, and criticality conditions of nuclear reactors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4283 Science and Technology of Terrorism and Counterterrorism
Description: A General overview of energy systems, renewable and non-renewable energy sources, and advances in energy applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4293 Nonproliferation: Issues for Weapons of Mass Destruction
Description: Weapons of mass destruction (WMDs) are a direct consequence of 20th-century technology. The challenges that we face in coming to grips with the awesome destructive power that WMDs hold will be a dominant theme of the 21st century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4300 Nuclear Engineering Special Topics
Description: Special topics, variable credit hour course (1-8 credits) for Nuclear Minor.
Credit hours: 1-8
Contact hours: Lecture: 1-8 Contact: 1-8
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4353 Materials Requirement and Selection for Nuclear Energy Applications
Prerequisites: CHEM 1314 and MATH 2153 and ENSC 2213 and ENSC 2143 or permission of instructor.
Description: With the resurgence of the nuclear power industry and the growth of the nuclear Navy, there is a need for engineers trained in the materials needs of the nuclear industry. This course covers corrosion and degradation of materials in the nuclear and non-nuclear portions of nuclear power facilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 4403 Interdisciplinary Senior Design
Prerequisites: Permission of the instructor and department for all students.
Description: Open-ended interdisciplinary design project with team format addressing real world challenges through applied engineering, collaborative problem-solving and design solutions, prototyping, economic analysis, project management, and fostering entrepreneurial/intrapreneurial opportunities. Projects may be sponsored by a company, agency, individual or be self-generated. Team members work with sponsors, professionals, and faculty who serve as mentors in fields related to their project focus. Previously offered as ENGR 4400. Same course as ENGR 4404.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENGR 5010 Engineering Problems and Design
Prerequisites: Permission of instructor.
Description: Special projects and independent study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5103 Advanced Impact of Law on Engineering Practice
Prerequisites: Graduate standing.
Description: Principles and impact of U.S. and international laws and regulations on technical professionals, including the impact of environmental regulations, intellectual property laws, tort claims, and product liability on the design, research and oversight of technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5113 Advanced Intellectual Property Law for Technical Professionals
Prerequisites: Graduate standing.
Description: Law and regulations of patents and other IP protection methods. Impact of statutory and common law has made on the practice of technical professionals and how they can exploit IP in their daily work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5123 Advanced Tort and Products Liability Law for Technical Professionals
Prerequisites: Graduate standing.
Description: Legal liability of the work product and duties of technical professionals to the public. Relevant statutory, regulatory and common law relating to torts, specifically products liability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5133 Advanced Environmental Law for Technical Professionals
Prerequisites: Graduate standing.
Description: Environmental laws and regulations are omnipresent in the practice of engineering, science, and architecture. This course will survey the environmental laws and regulations affecting the practice of these professions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5333 Production Engineering
Prerequisites: Consent of instructor.
Description: Fundamental production engineering design, evaluation, and optimization for oil and gas wells, including well deliverability, formation damage and skin analysis, completion performance, and technologies that improve oil and gas well performance. Offered through distance education only. No credit with credit in 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENGR 5343 Reservoir Engineering
Prerequisites: Consent of instructor.
Description: Reservoir description techniques using petrophysical and fluid properties; engineering methods to determine fluids in place, identify production-drive mechanisms, and forecast reservoir performance; implementation of pressure-maintenance schemes and secondary recovery. Offered through distance education only. No credit with credit in 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Engineering

Engineering Science (ENSC)

ENSC 2113 Statics
Prerequisites: Either MATH 2133 or MATH 2144 and either PHYS 1114 or PHYS 2014 with grades of "C" or better.
Description: Resultants of force systems, static equilibrium of rigid bodies, statics of structures, and fluid statics. Shear and moment diagrams.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 2123 Elementary Dynamics
Prerequisites: ENSC 2113 with a grade of "C" or better.
Description: Kinematics and kinetics of particles, systems of particles, and rigid bodies from a Newtonian viewpoint using vector algebra and calculus. Work-energy and impulse-momentum principles. Planar and three-dimensional kinetics and kinematics of rigid bodies.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 2141 Strength of Materials Lab
Prerequisites: Concurrent enrollment in ENSC 2143 or GENT 3323 or permission of the instructor.
Description: Study the sensing, conditioning and acquisition of load, deformation and strain data and the inference of stress. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. Perform material tensile tests and acquire stress and strain data. Study the behavior of engineering materials in service and failure. Operate 3D printers and mills to manufacture samples and structures for testing. Test engineered designs of beams, pressure vessels, truss and frames structures, etc. to failure and compare to design predictions from ENSC 2143. Preparation of formal reports, including the presentation of plots, figures and table.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENSC 2143 Strength of Materials
Prerequisites: ENSC 2113 with grade of "C" or better.
Description: Bending moments, deformation and displacement in elastic and plastic deformable bodies. Axial, torsional and shear loads. Buckling stress transformations and combined loads.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 2213 Thermodynamics
Prerequisites: A grade of "C" or better in CHEM 1314, CHEM 1414 or CHEM 1515, MATH 2144, PHYS 2014.
Description: Properties of substances and principles governing changes in form of energy. First and second laws.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 2411 Electrical Science Lab
Prerequisites: ENSC 2613 or concurrent enrollment in ENSC 2613 or permission of instructor.
Description: Laboratory providing hands-on experience with engineering topics related to Electrical Science. May not be used for degree credit with ENSC 2611.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENSC 2611 Electrical Fabrication Lab
Prerequisites: ENSC 2613 or concurrent enrollment in ENSC 2613 or ECEN 2714 or concurrent enrollment in ECEN 2714 or permission of instructor.
Description: This course will cover electrical fabrication techniques including schematic capture, printed circuit board layout, circuit board milling, cabling, heat sinks, soldering and package design. An emphasis on a hands-on experience with modern PCB fabrication tools and equipment will be central to this course.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENSC 2613 Introduction to Electrical Science
Prerequisites: MATH 2153.
Description: Elements of electrical engineering; AC and DC circuits, mesh and node formulation of network equations, steady-state response to sinusoids, energy, power and power factor.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 3231 Fluids and Hydraulics Lab
Prerequisites: Concurrent enrollment in ENSC 3233 or MET 3313 or FPST 2483 or MAE 3333 or permission of instructor.
Description: Laboratory providing hands-on experience with standard measurement techniques of fluid mechanics and their applications. Develop and conduct appropriate experimentation, analyses and interpret data to draw conclusions using engineering judgment. Comparison of analytical models introduced in an introductory fluid mechanics course to the actual behavior of real fluid flows. Preparation of formal reports, including the presentation of plots, figures, and tables.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENSC 3233 Fluid Mechanics
Prerequisites: ENSC 2113 and MATH 2153 with a grade of "C" or better.
Description: The study of fluid properties, statics, conservation equations, dimensional analysis and similitude, viscous flow in ducts, inviscid flow, boundary layer theory, open channel flow, turbomachinery and fluid measurement techniques.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Engineering

ENSC 3311 Material Science Lab
Prerequisites: (ENSC 2113 or MET 3343) and MATH 2153 with a grade of "C" or better.
Description: The study of fluid properties, statics, conservation equations, dimensional analysis and similitude, viscous flow in ducts, inviscid flow, boundary layer theory, open channel flow, turbomachinery and fluid measurement techniques.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

ENSC 3313 Materials Science
Prerequisites: CHEM 1314 or CHEM 1414 or CHEM 1515.
Description: Introductory level. Relationship between structure and properties of materials and engineering applications. Atomic, microscopic and macroscopic properties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Engineering

ENSC 3431 Thermodynamics and Heat Transfer Lab
Prerequisites: Concurrent enrollment in ENSC 2213 or MET 3433 or MAE 3233 or MET 3453 or MET 4433 or permission of the instructor.
Description: Laboratory providing hands-on experience with engineering topics related to fundamental principles of Thermodynamics and Heat Transfer.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Dean of Engineering

English (ENGL)

ENGL 0003 Academic English for Graduate Students
Description: Study and practice of English listening, reading and speaking skills required for graduate study. Graded on satisfactory-unsatisfactory basis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1010 Studies in English Composition
Description: Special study in composition to allow transfer students to fulfill general education requirements as established by Regent's policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 1113 Composition I
Description: The fundamentals of expository writing with emphasis on structure, development and style.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1123 International Freshman Composition I
Description: Restricted to students whose native language is not English. Expository writing with emphasis on structure and development. Special attention to problems of English as a second language. This course may be substituted for ENGL 1113. Previously offered as ENGL 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1213 Composition II
Prerequisites: ENGL 1113 or ENGL 1123 or ENGL 1313.
Description: Expository composition with emphasis on technique and style through intensive and extensive readings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1223 International Freshman Composition II
Prerequisites: ENGL 1113 or ENGL 1123.
Description: Restricted to students whose native language is not English. Expository composition with emphasis on technique and style in writing research papers. May be substituted for ENGL 1213. Previously offered as ENGL 1033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1313 Critical Analysis and Writing I
Description: Expository writing forms, including summary, critique, and synthesis. Writing assignments based on readings from across the curriculum. May be substituted for ENGL 1113 for gifted writers who seek a more challenging course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1413 Critical Analysis and Writing II
Description: Critical thinking, research, and writing skills necessary for success in courses across the curriculum. Some sections available for honors credit. May be substituted for ENGL 1213 for gifted writers who seek a more challenging course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1923 Classics Old and New (H)
Description: What's on your list of must-read books? In this course, you'll get to dive deep into some of the most celebrated (and controversial) works of literature in a small, discussion-based class. Guided reading, short writing, and creative activities designed to spark your literary curiosity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2233 Writing as a Profession (H)
Description: An overview of genres and styles of writing in professional contexts, including organizations, science and industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2243 Language, Text and Culture (GH)
Description: Investigation of how human language relates to culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 2253 Theory and Practice of Digital Studies
Description: Introduction to digital studies including historical, cultural, and technological contexts. Students will produce digital projects interrogating issues and challenges of digital cultures including webpages, podcasts, and infographics. No prior computer experience needed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 2393 Popular Fiction (H)
Description: Readings in several related popular genres of fiction such as science fiction, fantasy, horror, romance, crime fiction, Westerns, graphic novels, comics, and/or fan fiction. Small, discussion-based classes investigate how contemporary popular fiction depicts diverse experiences and identities and engages different communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2413 Exploring Literature (DH)
Description: Readings from a wide range of literature depicting diverse experiences and identities. Class discussions cover literary forms and meanings, along with the imaginative depictions of different communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 2443 Languages of the World (GS)
Description: A comprehensive survey of world languages. The essential structural and historical organization of languages. The process of languages as a basic human function. Same course as FLL 2443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ENGL 2453 Introduction to Film and Television (H)
Description: Introduction to the formal analysis of moving images - film, television, and new media - in aesthetic, cultural, and political contexts. Students discuss and write about films and other moving images screened in class.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2513 Introduction to Creative Writing (H)
Description: Literary composition with emphasis on techniques and style through readings and writings in fiction, poetry and creative nonfiction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2543 Survey of British Literature I (H)
Description: The beginnings through the Neo-Classic Period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2653 Survey of British Literature II (H)
Description: The Romantic Period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2773 Survey of American Literature I (H)
Description: The Puritans through the Romantic Period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2883 Survey of American Literature II (DH)
Description: The Romantic Period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 2890 Honors Experience in English
Prerequisites: Honors Program participation and concurrent enrollment in a designated ENGL course.
Description: A supplemental Honors experience in English to partner concurrently with designated English course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 2963 Survey of Postcolonial and Indigenous Literatures (GH)
Description: Introduction to the literature of the indigenous people and postcolonial nations of the world. Previously offered as ENGL 3173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3030 Writing the Short Story (F)
Description: This workshop will focus on the creative process of writing original short stories. Because this class focuses on writing and the creative process, we will examine our own work and the work of published fiction writers. The type, form, and audience of short stories covered in this class will vary. Previously offered as ENGL 3033. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3040 Poetry Writing: Free Verse and Formal (F)
Description: This workshop will focus on the creative process of writing original free verse and formal poetry. Because this class focuses on writing and the creative process, we will examine our own work and the work of published poetry writers. The type, form, and audience covered in this class will vary. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3060 Writing Flash Nonfiction (F)
Description: Students write and workshop original creative nonfiction in the flash nonfiction form and read and discuss published flash nonfiction to learn and practice craft techniques of this short and dynamic genre. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3063 Introduction to Linguistics: Exploring Human Language
Description: Introduction to the study of how languages work and how they're used. Looks at speech sounds, how words are formed, the structure of phrases and sentences, the use of language in interaction. Considers English and other languages of the world. Same course as ENGL 4063. May not be used for degree credit with ENGL 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3073 Film Production
Description: An overview of film production introducing students pre-production; the basics of on-set production; and the mechanics of camera operation and editing software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3083 Global Approaches to Ecological Storytelling (G)
Description: This writing course focuses on the development, practice, traditions, concerns, and characteristics of ecological writing through a collaboration of global scientific research, international observation, and respectful empathic cultural communication through narrative. With collaboration among critical thinkers and narrative writers, we can combine the power of storytelling with scientific rigor to convey complex ideas about global biodiversity loss.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: International Dimension

ENGL 3113 Science, Literature, and Culture (H)
Description: This course provides students with opportunities for critical reading, thinking, discussion, and writing about the physical and life sciences, their history, and the cultural roles they play, especially in relation to literature. This course is structured as a general survey of the social and cultural study of science, examining major works in the history, philosophy, and sociology of science in conjunction with major works of English-language literature that engage directly with the sciences. Same course as AMST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3123 Mythology (H)
Description: Myths, their cultural context, and their place in world literature. Same course as LATN 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3133 Readings in Multi-Ethnic American Literature
Description: Literature by American writers of diverse ethnicities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3143 Readings in Postcolonial Literature (GH)
Description: Literature in English by writers from parts of the world once colonized by the West.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3153 Readings in Literature by Women (DH)
Description: The collection of literature written by women in England and America, classical and modern figures. Previously offered as ENGL 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3163 Literatures of the Ancient World (H)
Description: Readings and topics in the cultures and literatures of the ancient world. Same course as LL 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3170 Readings in Literature and Other Disciplines
Description: A study of literature and its historical or thematic connections to one or more of the fine arts or disciplines in the humanities or social sciences. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3183 Native American Literature (DH)
Description: Origins and development of a literary tradition in its historical and cultural context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3190 Readings in Postcolonial and Multiethnic Literature
Description: Principal literary and critical texts written in English either by writers from parts of the world once colonized by the West or by American writers of different ethnic origins whose work bridges cultures. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3193 African-American Literature (DH)
Description: Origins and development of a literary tradition in its historical and cultural context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3200 Special Problems in Language and Literature
Prerequisites: 9 credit hours of English.
Description: Specialized readings and independent study. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 3203 Advanced Composition
Prerequisites: 9 hours of English.
Description: An advanced writing course based on contemporary theories of composition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3223 Professional Writing Theory
Description: Major theories, issues and methodologies in professional writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3243 Literary Theory and Criticism
Description: Study of the major works of critical theory and literary criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3263 Film & TV Criticism
Description: An inquiry into the major concepts and debates of mass-media theory. Issues addressed include the nature of the relation between images and reality; the psychological and cultural significance of style in film, television, and new media representations; and the role that mass-media play in the organization of social and political relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3273 YouTube and Online Communities (H)
Description: This course offers a critical assessment of the video-sharing platform YouTube. Course readings and written assignments emphasize the aesthetics and industrial practices of the platform. Topics include genres of content creation, the creator economy, influencer culture, content moderation and community guidelines, copyright infringement and relation to legacy media, disinformation and conspiracy theories, and political radicalization.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3293 Media and the Environment (H)
Description: This course examines the relationship between media industries and the natural environment. Topics covered include depictions of non-human nature (animals and plants), representations of climate change, sustainable media production, and media's relation to extractive industries and energy production.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3323 Technical Writing
Prerequisites: ENGL 1113 or ENGL 1213 or ENGL 1313 and junior standing.
Description: Applied writing in areas of specialization. Intensive practice in professional/technical writing genres, styles, research techniques and editing for specialized audiences. This course may be substituted for ENGL 1213 with an "A" or "B" in ENGL 1113 and consent of the student's college.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3333 Short Story (H)
Description: Origins, development, theory and craft of the short story.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3343 Reading Poetry
Description: This course in poetic literacy will introduce students to the major poetic forms, to changes in aesthetics of poetry over time, to figurative language, to prosody, to the particular interpretative skills required to understand and write about the genre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3353 Film and Literature
Description: A study of film and literature in relation, whether by way of adaptation studies, the distinct "grammars" of images and language, or the emergence of film and literary forms alongside each other in aesthetic movements.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3363 Readings in Drama (H)
Description: Close study of representative plays of various periods (for example, Classical, Renaissance, Restoration, Modern, and others) and of the main formal categories (tragedy, comedy).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3373 Readings in Nonfiction
Description: Theory and practice of creative nonfiction in English, including autobiography, travel writing, literary journalism, correspondence and the essay.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3383 Readings in Narrative
Description: Readings in narrative of different periods and different genres.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3410 Readings in Popular Fiction
Description: Historical study of a popular fictional genre's development. Course content varies by semester; individual courses may focus on science fiction, fantasy, detective fiction, the Western, horror and the Gothic, romance, graphic novels, or other popular narrative categories. Exploration of the characteristics and evolution of the genre while developing skills in reading, writing and thinking critically. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3413 Science Fiction (H)
Description: This course will survey the development of science fiction literature as a genre, focusing on major figures and important topics from its beginnings to the contemporary scene. In examining the evolution of science fiction storytelling, we will also investigate how science fiction both reflects and influences broader historical and cultural changes in the 19th, 20th and 21st centuries. Same course as AMST 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3433 Introduction to Television Studies (H)
Description: A focused examination of one aspect of television culture, technology, history and/or style. While the particular topics to be considered vary, and include everything from TV genres to TV theories, in each instance the course gives students an in-depth understanding of how television shapes the social and political world in which we live. Previously offered as ENGL 3430.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3440 Studies in Film Genre
Description: A comparative study of types of films both inside the Hollywood system and in other national cinemas. The western, the film noir and the musical, as well as genres from such countries as France, Germany and Japan. Focused knowledge of selected genres, a sense of the economic imperatives that necessitate generic "contracts" between film producers and viewers and knowledge of the history of specific genres. Previously offered as ENGL 3443. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3453 History of American Film (H)
Description: Examines the history of cinema in the U.S. from its beginnings until the present, addressing such issues as: the origins of cinema, the coming of sound, American film genres, the Hollywood studio system, censorship, the challenge of television, the new American cinema of the 1970s, the politics of independent film production, and the rise of computer-generated imagery.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3463 History of International Film (GH)
Description: Introduction to the history of international cinema and the principal eras in film history, focusing on the moments when different national cinemas flourished.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3473 Race, Gender, and Ethnicity in American Film (D)
Description: A survey of race, gender, and ethnicity as they have been represented in American films. Same course as AMST 3473.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Diversity

ENGL 3483 Screenwriting
Description: Introduction to the craft of screenwriting. Students will write and workshop their own screenplays and treatments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3503 Television and American Society (DH)
Description: Examination of television within the social and cultural context of the U.S. Looks at the aesthetic and industrial practices that shape representation on TV and the effects of those practices, particularly for socially disempowered groups. Same course as AMST 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3813 Readings in the American Experience (DH)
Description: Life in the New World from the colonial to the postmodern era using a multiplicity of interdisciplinary texts that demonstrate the emergence and ongoing evolution of distinctive American identities. Same course as AMST 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3890 Advanced Honors Experience in English
Prerequisites: Honors Program participation and concurrent enrollment in a designated ENGL course.
Description: A supplemental advanced honors experience in English to partner concurrently with designated upper-division English course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 3903 Writing Center Theory and Practice
Prerequisites: Six hours English or consent of instructor.
Description: Writing center research with practical applications in writing instruction.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3933 Shakespeare (H)
Description: Recurring themes and their variations in Shakespeare's work. Nature of these genres in the period and Shakespeare's innovations. The structure and language of the plays, occasional examination of historical documents and contexts, modern performances, and critical essays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4003 History of the English Language
Description: The growth of the English language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4013 English Grammar
Description: The traditional terminology and concepts of English grammar leading or evolving into the several current systems of description. May not be used for degree credit with ENGL 5130.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4033 Discourse Analysis
Description: Introduction to the analysis of the language used in spoken and written discourse contexts in a variety of genres. May not be used for degree credit with ENGL 5340.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4043 Teaching English to Speakers of Other Languages
Description: Designed to develop the skills and techniques needed in teaching English to speakers of other languages (TESOL). Examines the theoretical issues behind the practice and methodologies and classroom techniques, including the testing of English and the selection and preparation of teaching materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4053 Film Directing
Description: An overview of film direction introducing students to the dramatic elements of film production and best practices for working with cast and crew by way of hands-on experience of film directing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4073 Introduction to Sociolinguistics
Description: The study of how languages and varieties vary in social contexts and how they are regarded. Same course as CDIS 4073. May not be used for degree credit with ENGL 5173 or CDIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4080 Studies in Linguistics
Description: Study of a topic in linguistics, chosen at the instructor's discretion. May not be used for degree credit with ENGL 5140 or ENGL 6410. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4083 Applied Linguistics
Description: Introduction to the applied study of language in use, including aspects of discourse, power, identity, and language choice among other topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4093 Language in America (DS)
Description: Historical development of American English. Regional, social and cultural language differences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Society & Human Behavior

ENGL 4100 Studies in Medieval British Literature
Description: Special topics encompassing the many different ethnic traditions and genres found in medieval British literature. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4110 Studies in 16th Century British Literature
Description: Literature themes of the English Renaissance focusing on related authors and topics. Authors include Shakespeare, Spenser, Sidney, Marlowe, Raleigh, Wyatt, and Surrey. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4120 Studies in 17th Century British Literature
Description: Obtaining an understanding of 17th century British literature while developing skills as a critical thinker, a reader of literary texts and a writer of expository prose. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4130 Studies in 18th Century British Literature
Description: Selected topics in British literature from 1660-1800. Various writers and their works and themes and literary developments of the period. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4143 Language and Technology
Description: Introduction to the use of linguistic knowledge in computer applications today. How the study of language has contributed to the advancement of technology and how certain computational problems have influenced the way linguists study language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4160 Studies in 19th Century British Literature
Description: Exploration of the literary culture of nineteenth-century Britain. Topics might range from romantic poetry to the Victorian novel. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4170 Studies in 20th Century British Literature
Description: Various topics focusing on the literature and culture of Britain and Ireland, such as 20th century British and Irish fiction, poetry, or drama; The City; The Irish Renaissance. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4180 Internship in TESL
Prerequisites: ENGL 4043 or CIED 4133 or permission from instructor. Note: CIED 4133 (formerly EDUC 4110) has been submitted for approval for a name change.
Description: This internship is designed to provide instructional support and professional mentoring for students seeking the undergraduate certificate in TESOL (Teaching English to Speakers of Other Languages). Previously offered as ENGL 4173. Offered for variable credit, 3-4 credit hours, maximum of 4 credit hours.
Credit hours: 3-4
Contact hours: Contact: 3-4 Other: 3-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 4200 Studies in Early American Literature
Description: Readings and topics in early American literature and culture. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4210 Studies in 19th Century American Literature
Description: Themes in 19th century American literature with attention to social and cultural contexts. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4220 Studies in 20th Century American Literature
Description: Topics focusing on the literature and culture of the United States, such as 20th century American fiction, poetry, or drama; alienation and activism; the impact of science and technology. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4223 Introduction to Old English
Description: The basics of pronunciation, vocabulary, and grammar, enabling students to read short works in prose and poetry. Previously offered as ENGL 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4230 Literature of Diversity
Description: Readings on topics such as gender, race, ethnicity, sexuality, disability, and class. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4263 Moving Image Aesthetics (H)
Description: A historical and theoretical examination of the stylistic and affective dimension of moving images, including questions of beauty and ugliness, cuteness and the graphic, enjoyment and disgust, high and low culture. Screenings will vary from semester to semester, but may include examples of realism, lo-fi production, prestige pictures, documentary, music videos and cult cinema, and will include material from both American and international contexts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4300 Studies in Romanticism
Description: Principle works of Romanticism, reflecting the cultural, social, and political developments. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4310 Studies in Modernism
Description: Selected topics in literature of the early twentieth century. Texts and themes will vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4320 Contemporary Literature
Description: Studies and topics in contemporary literature. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4333 Studies in Native American Literature
Description: Readings and topics in Native American Literature and culture. Previously offered as ENGL 4330.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4340 Studies in Postcolonial and Multi-ethnic Literature
Description: Readings and topics in postcolonial literature and culture or multiethnic literature and culture. Offered for variable credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4350 Contemporary International Cinema
Description: Examines major trends in contemporary international cinema of the last fifteen years. National cinema may include France, Germany, Italy, Spain, Sweden, China, Taiwan, India, South Korea, and Russia, amongst others. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 4400 Studies in Regional Literature
Description: Literature of a nation such as Ireland or Canada, or of a region such as the American Southwest. Topic varies by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4450 Culture and the Moving Image
Prerequisites: ENGL 2453.
Description: An advanced class that examines in-depth the relation between moving images and a particular cultural phenomenon, including mass media and the production of violence, the moving image as common culture, television and the construction of domestic life, to name only a few possibilities. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 4513 Literary Art in the Bible
Description: This course will explore literary devices (foreshadowing, allegory, symbolism, etc) and how they are implemented in biblical texts. The Bible will be the primary focus, but comparative texts will be used to build an understanding and recognition of literary devices. We will examine the texts and their history on their own terms, rather than promote a particular religious or non-religious viewpoint. Same course as REL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4520 Problems in English
Prerequisites: 12 credit hours of English.
Description: Specialized readings and independent studies. May not be used for degree credit with ENGL 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 4523 Professional Writing Internship
Prerequisites: ENGL 4543 and ENGL 4553 or permission of instructor.
Description: Supervised work-and-learning experience in writing, editing, document design, and research in the workplace. May not be used for degree credit with ENGL 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4530 Studies in Professional Writing
Prerequisites: Six credit hours of English.
Description: Selected topics in professional writing, focusing on a particular theme, issue or theoretical approach. Previously offered as ENGL 4533. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours. May not be used for degree credit with ENGL 5560.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4543 Style and Editing
Description: An intensive study of writing style and editing from the sentence level (including diction and grammatical arrangement) to the levels of genres of communication. Writing assignments on style for different audiences. May not be used for degree credit with ENGL 5593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4553 Visual Rhetoric and Design
Description: Major theories, issues, and methodologies in visual rhetoric and design. Practice of theory through guided composing work. May not be used for degree credit with ENGL 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4573 Games and Writing
Description: Major theories, practices, and methods of digital and procedural rhetorics. Students will study, analyze, and design games, with special emphasis on how they make persuasive appeals through software and code.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4583 Writing for the Public
Description: Examination and practice of writing for varied publics. Students will produce projects grounded in public advocacy, nonprofit, and/or community sites situated in local, national, and/or web spaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4593 Writing Across the Disciplines
Description: A course that explores writing in multiple disciplinary contexts and the complexities that come with entering a particular academic discourse community. We will examine writing in STEM, the social sciences, and the humanities and analyze the ways in which writing in these disciplines changes and adapts. This course aims to help students understand different rhetorical moves made in discipline-specific writing and how this knowledge transfers to their own writing abilities and growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4600 Studies in Chaucer or Milton
Description: Various topics focusing on the works of Chaucer or Milton. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4620 Creative Nonfiction: Writing Memoir and the Personal Essay
Description: Students learn and practice the specialized craft techniques of creative nonfiction by writing and workshopping original memoirs and personal essays and reading and discussing published memoirs and personal essays. Previously offered and same course as ENGL 4460. May not be used for degree credit with ENGL 5720 or ENGL 6160. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4630 Writing the Novel
Description: Students will actively participate in a lively workshop environment focusing on the creative process of writing original novels. The types, forms, and audience of novels covered in this course will vary. Because this class focuses on writing and the creative process, we will examine our own work and the work of published novelists. Previously offered as ENGL 4633. May not be used for degree credit with ENGL 5730 or ENGL 6130. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4640 Poetry Writing: Lyric and Narrative
Description: Students will actively participate in a lively workshop environment focusing on the creative process of writing lyric and/or narrative poetry. The types, forms, and audience of poems covered in this course will vary. Because this class focuses on writing and the creative process, we will examine both student work and the work of published poets. Previously offered as ENGL 4643. May not be used for degree credit with ENGL 5740 or ENGL 6140. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4700 Single Author or Work Pre-1800
Description: Study of a single author or work prior to 1800 along with supporting literature. Chosen at the instructor's discretion. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4710 Single Author or Work Post-1800
Description: Study of a single author or work after 1800 along with supporting literature. Chosen at the instructor's discretion. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4723 Studies in Shakespeare (H)
Description: Focus on advanced topics in major plays and selected criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4993 Senior Honors Thesis
Prerequisites: Admission to Arts and Sciences Honors Program and 3.50 cumulative GPA. For Honors students in their final semester.
Description: Thesis written on a topic of student's choice and directed by a faculty member. Final approval of thesis requires oral defense.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 5000 Master's Thesis
Description: MA thesis. Offered for variable credit, 1-9 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5013 Introduction to Graduate Studies
Description: Principles and procedures in scholarly research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5063 Seminar in Shakespeare
Description: Intensive study of a limited number of plays. Assignment of problems to individual students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5093 Seminar in Milton
Description: Poetry, major prose and criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5120 Studies in Teaching English as a Second Language
Description: Selected topics in teaching English as a second language; e.g. cross-cultural communication, materials preparation, bilingual education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5123 Approaches to Language Acquisition
Description: An overview of theories of first and second language acquisition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5130 Studies in English Grammar
Description: Selected study of current topics in grammatical theory as it applies to the teaching of English. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5133 Phonetics and Phonology
Description: Exploration of fundamental aspects of the use of sound in human language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5140 Seminar in Linguistics
Description: Selective study of current topics in linguistics. May not be used for degree credit with ENGL 4080. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5143 Descriptive Linguistics
Description: An introduction to phonology, morphology, syntax and semantics. May not be used for degree credit with ENGL 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5153 Syntax
Description: The study of the principles and rules for constructing phrases and sentences in natural languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5163 Middle English Literature
Description: Major works in Middle English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5173 Sociolinguistics
Description: Introduction to linguistic change and variation in speech communities, focusing on the methods of data collection and analysis. May not be used for degree credit with ENGL 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5183 Acoustic Phonetics
Description: An introduction to acoustic phonetics. Students will learn basic principles of the acoustics of speech sounds, develop practical skills in instrumental measurement, and learn how acoustic data can answer questions about sounds and sound patterns in language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5201 Writing Center Theory and Pedagogy
Description: The study of writing center theory and practice with the goal of application to one-to-one pedagogy.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5210 Sem or Directed Study
Description: Specialized readings or independent studies. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5213 Composition Theory and Pedagogy
Description: The study of methods and materials for effective one-to-one and one-to-many teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5223 Professional Writing Theory and Pedagogy
Description: The study of the needs of students in technical and professional writing service courses, major approaches to teaching professional writing, and the genres often taught in professional writing service courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5243 Teaching English as a Second Language
Description: Materials and methods of second language instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5313 Internship, Teaching English as a Second Language
Description: Supervised teaching of beginning through advanced English as a second language courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5333 Second Language Assessment
Description: Introduction to the fundamental principles of second and foreign language assessment, including theories of language testing and practical aspects of developing and using language tests. Topics include test design, construction, administration and scoring, psychometric and measurement concepts, basic statistics, as well as test analysis and reporting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5340 Studies in Discourse Analysis
Description: Selected topics in the study of language in use in spoken or written contexts. May not be used for degree credit with ENGL 4033. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5353 Studies in the History of Rhetoric
Description: An exploration of selected topics and texts in the history of Western and non-Western rhetoric from the classical period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5360 Seminar in Screen Studies
Description: The exploration of key aesthetic issues of analysis and evaluation as they pertain to film criticism. Previously offered as ENGL 5463. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5363 Critical Approaches to Screen Studies: Theory and History
Description: Designed to provide students with an overview of fundamental theoretical and historical scholarship in film and television studies.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5370 Studies in Television and New Media
Description: Exploration of aesthetic, cultural, and ideological aspects of television and new media in the United States and abroad. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5410 Seminar in British Literature of the 16th Century
Description: Selected writers and their works, themes and literary developments of the 16th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5420 Seminar in British Literature of the 17th Century
Description: Selected writers and their works, themes and literary developments of the 17th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5440 Seminar in British Literature of the 18th Century
Description: Selected writers and their works, themes and literary developments of the 18th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5460 Seminar in British Literature of the 19th Century
Description: Selected writers and their works, themes and literary developments of the 19th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5480 Seminar in Modern Literature
Description: Selected writers and their works, themes and literary developments of modern literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5520 Internship in Professional Writing
Prerequisites: Permission of department.
Description: Supervised work-and-learning experience in writing, editing, document design, and research in the workplace. May not be used for degree credit with ENGL 4523. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5523 Genres in Professional Writing
Description: The study of the current status of genre in professional writing theories and its crucial role in professional writing practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5553 Studies in Visual Rhetoric and Design
Description: Advanced study of design and visual rhetorical theory. Practice of theory through guided composing work. May not be used for degree credit with ENGL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5560 Seminar in Professional Writing
Description: Advanced study of selected theories, themes, methods, debates, and developments in professional writing. May not be used for degree credit with ENGL 4530. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5583 Environmental Writing
Description: Consideration of the historical, political, cultural, and ethical contexts of modern environmentalism and examination of the rhetorical strategies in several types of environmental discourse. Major writing project tailored to individual research interests and career goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5593 Seminar in Style and Editing
Description: An advanced study of writing style and editing from the sentence level (including diction and grammatical arrangement) to the levels of genres of communication. Writing assignments on style for different audiences. May not be used for degree credit with ENGL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5630 Seminar in Early American Literature
Description: Selected writers and their works, themes and literary developments of the 17th and 18th centuries. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5660 Seminar in American Literature of the 19th Century
Description: Selected writers and their works, themes and literary developments of the 19th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5680 Seminar in Contemporary Literature
Description: Selected writers and their works, themes and literary developments in contemporary literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5693 Research Writing for International Graduate Students
Description: Analysis and practice in the grammar and rhetorical structures specific to writing research papers in the disciplines. Previously offered as ENGL 4893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5720 Seminar in Creative Nonfiction
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing creative nonfiction at the professional level. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5730 Seminar in Fiction Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing fiction at the professional level. May not be used for degree credit with ENGL 4630. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5740 Seminar in Poetry Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing poetry at the professional level. May not be used for degree credit with ENGL 4640. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5760 Craft and Forms of Prose
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Theory and practice of the prose forms. Previously offered as ENGL 5763. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5780 Craft and Forms of Poetry
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Theory and practice of the poetic forms. Previously offered as ENGL 5723. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5990 Special Problems
Description: Topical study in various disciplines taught by faculty from the undergraduate colleges for juniors and seniors. May not be used for degree credit with ENGL 4520. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6000 Doctoral Dissertation
Description: Doctoral dissertation. Offered for variable credit, 1-9 credit hours, maximum of 30 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6130 Studies in Fiction Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in fiction. May not be used for degree credit with ENGL 4630. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6140 Studies in Poetry Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in poetry. May not be used for degree credit with ENGL 4640. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6160 Studies in Creative Nonfiction
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in creative nonfiction. May not be used for degree credit with ENGL 4620. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6210 Seminar or Directed Study
Description: Specialized readings or independent studies. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6220 Seminar in Genre
Description: The development, traditions, concerns or characteristics of genre in selected texts. Major genres and subgenres considered. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6240 Studies in Literature
Description: Advanced topics in literature and literary research. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6250 Seminar in Race and Ethnicity
Description: Study of the complex representation of race and ethnicity in literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6260 Studies in Literary Criticism
Description: Selected work in literary criticism, for example ancient and neo-classical, 19th century, 20th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6270 Seminar in Region
Description: Study of regional literature or language variation. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6280 Seminar in Gender
Description: Examination of gender as an analytical category in the study of literature, discourse and society. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6350 Topics in Rhetorical Theory
Description: Study of advanced topics in rhetorical theory and research, focusing on an important scholar in the field, a specific theme, or some combination of the two. Previously offered as ENGL 6353. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6360 Seminar in Film and Society
Description: Social conduct and value systems as they affect the role of media in culture. Previously offered as ENGL 6253. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 6410 Topics in Linguistics
Prerequisites: ENGL 5143.
Description: Study of advanced topics in linguistic theory and research. May not be used for degree credit with ENGL 4080. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6420 Topics in Second Language Acquisition
Prerequisites: ENGL 5243.
Description: Study of topics in second language theory and research. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6500 Topics in Professional Writing
Description: In-depth study of selected topics in professional writing. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

Entertainment Media (ENTM)

ENTM 3043 The World of Entertainment Media
Description: This course will introduce students to the roles of entertainment media in society, to the study of entertainment media as an academic discipline and to careers in the entertainment industry. Cannot be used for degree credit with SC 3043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 3063 Storytelling Across Screens
Description: This course introduces students to digital communications with a series of hands-on projects that incorporate multimedia tools. Students will develop basic skills in blogging, photography, videography, podcasting and web page development. Discussion will focus on effective techniques for storytelling in a changing media landscape, and exploring new approaches to traditional methods of communication. Cannot be used for degree credit with MC 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 3113 Graphic Design for Entertainment Media
Description: This course allows students to develop fundamental visual and graphic design theory and skills to prepare for careers in Entertainment Media and related fields. Course topics include visual design foundations, user interface foundations, and design thinking methods. Cannot be used for degree credit with SC 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 3443 Social Media for the Entertainment Industry
Description: The practice and application of social media such as Facebook, YouTube, Twitter, Instagram and other social networking platforms to communications practice, Cannot be used for degree credit with SC 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4010 Special Topics in Entertainment Media
Description: This course introduces students to advanced current issues and topics related to entertainment media and provides an analysis of trends in entertainment media. Course content will vary to reflect changing trends and current topics related to the industry. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Lecture: 1-15 Contact: 1-15
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4123 Entertainment Media Law
Description: The goal of this course is to introduce students to the legal rights of, and restraints on, entertainment media. Students should gain a better understanding of how to protect themselves and your future employers from libel and privacy suits; how to fight for their right to gain access to documentation; and how the First Amendment impacts their daily life. Cannot be used for degree credit with MC 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4223 Ethics and Professionalism in the Entertainment Industry
Description: This course addresses the role of entertainment media as socially responsible institutions and the responsibilities of individuals operating within those systems. We will learn the tools of moral reasoning and good judgment that professionals in entertainment media need to confront the moral challenges that inevitably will arise as they pursue their role in society. Cannot be used for degree credit with MC 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4443 Media Writing for the Entertainment Industry
Description: This course provides a theoretical understanding of persuasive communication as well as hands-on experience creating, writing, editing, and producing materials for the entertainment media industry. May not be used for degree credit with SC 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4573 Documentary Production
Description: Student-written and produced mini-documentaries; analysis of selected programs. Cannot be used for degree credit with MMJ 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4743 Entertainment Media Capstone
Description: Students complete a theoretical or applied project during the semester focusing on theoretical/methodological concerns in media and entertainment and their implications for our understanding of media in society. The course culminates in a paper/project that integrates, critiques, extends and applies knowledge gained from prior entertainment courses. Cannot be used for degree credit with SC 4743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ENTM 4990 Entertainment Media Internships
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

Entomology & Plant Pathology (ENPP)

ENPP 2143 Global Agricultural Biosecurity and Forensics
Description: Biosecurity, biosafety, bioterrorism, microbial forensics, emerging organisms, invasive species, quarantine, response, surveillance, detection, diagnostics, and how all system components integrate to science and to agricultural specialties, economics, and defense. Previously offered as PLP 2143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 3663 Turfgrass Integrated Pest Management
Description: The biology, ecology, and identification of fungal, nematode and insect turfgrass pest. Contemporary concepts and applications of integrated control practices available for managing turfgrass pest presented along with decision-making tools for use in turfgrass pest management programs. Same course as ENTO 3663. Previously offered as PLP 3663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 4323 Genomic Data Applications for Biosecurity
Description: A comprehensive understanding of the fundamental concepts of genetics and bioinformatics, mainly focusing on their practical applications in agricultural biosecurity. May not be used for degree credit with ENPP 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 4423 Pesticide Applications
Description: Introduction of the contemporary concepts and applications of integrated control practices available for managing pests and emphasizes decision making tools for use in pest management programs based on pesticides. Concepts include equipment calibration, proper mixing equations, and proper application equations. May not be used for degree credit with ENPP 5423.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5000 Master's Research and Thesis
Description: Research for the MS degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credits. Previously offered as ENTO 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENPP 5014 Plant Virology
Prerequisites: PLP 3343 or MICR 2125 or PLNT 2013 or instructor permission.
Description: Plant viruses as causal agents of plant diseases. Taxonomy, biological, chemical, and physiological properties; transmission; host-virus and vector-virus relationships; replication; molecular virology detection, diagnosis ecology, and biosecurity. Lab; primer design for RT-PCR isothermal methods; serology. Previously offered as PLP 5013 and PLP 5014. May not be used for degree credit with MICR 5123.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5020 Special Problems
Prerequisites: Graduate standing.
Description: Selected studies in the area of entomology, acarology or araneology or Plant Pathology. Previously offered as ENTO 5020. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENPP 5044 Insect Morphology and Physiology
Prerequisites: ENTO 2993 Introduction to Entomology.
Description: Functions of the organ systems and demonstration of selected techniques for study of insect physiology. Offered in combination with ENTO 3044. May not be used for degree credit with ENTO 3044. Previously offered as ENTO 5043 and ENTO 5044.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5104 Mycology
Prerequisites: Graduate standing.
Description: A systematic study of the fungi, with emphasis on taxonomy, comparative morphology and fungal biology. Same course as BOT 5104 or PBIO 5104. Previously offered as PLP 5104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5223 Ecological Methodology
Prerequisites: One course in either ecology or general biology.
Description: Use of insects and other invertebrates for describing and evaluating interactions of individuals and populations with their environments. Coverage of behavioral and physiological ecology on consequences to individuals; population and community ecology considered in dynamics of groups of organisms in ecosystems. May not be used for Degree Credit with ENTO 4223. Previously offered as ENTO 5223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5304 Phytobacteriology
Prerequisites: PLP 3343.
Description: Bacteria as plant pathogens, with examination of the taxonomy, genetics, ecology, physiology, host-parasite interaction, and control of phytobacteria. Previously offered as PLP 5304.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5323 Genomic Data Applications for Biosecurity
Description: A comprehensive understanding of the fundamental concepts of genetics and bioinformatics, mainly focusing on their practical applications in agricultural biosecurity. May not be used for degree credit with ENPP 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 5343 Principles of Plant Pathology
Prerequisites: PBIO 1404 or MICR 2123 or HORT 1113 or PLNT 2013.
Description: Introduction to basic principles and concepts of plant pathology, including the nature, cause and control of biotic and environmentally induced plant diseases. Offered in combination with PLP 3343. No credit for both PLP 3343 and PLP 5343. Graduate students will be expected to complete extra assignments. Previously offered as PLP 5043 and PLP 5343.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5423 Pesticide Applications
Description: Introduction of the contemporary concepts and applications of integrated control practices available for managing pests and emphasizes decision making tools for use in the pest management programs based on pesticides. concepts include equipment calibration, proper mixing equations and proper application equations. May not be used for degree credit with ENPP 4423.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5464 Insect Biology and Classification
Prerequisites: ENTO 2993 or equivalent or consent of instructor.
Description: Insect phylogeny, taxonomy, behavior, morphology and physiology in the context of ecosystem function. Major roles of insects in shaping ecosystem diversity, as indicators of environmental integrity, and as vectors of plant and animal pathogens and parasites. No credit for students with credit in ENTO 4464. Previously offered as ENTO 5464.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5484 Aquatic Entomology
Prerequisites: ENTO 2993 or instructor permission.
Description: Biology, taxonomy and ecology of insects and other invertebrates, inhabiting freshwater environments. Identification and biology of individual taxa. Roles of insects in aquatic ecology, as a forage base, and as indicators of biotic integrity of aquatic systems. May not be used for degree credit with ENTO 4484 or ZOOL 4484. Same course as ZOOL 5484. Previously offered as ENTO 5483 and ENTO 5484.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5501 Entomology For Educators
Description: Hands-on laboratory course designed to provide educators (teachers, FFA or 4H leaders, etc.) with all of the resources and background information needed to use insects as a model to teach scientific concepts. No credit given for students who have taken ENTO 3501. Previously offered as ENTO 5501.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENPP 5513 Biological Control
Prerequisites: ENTO 4464 or equivalent or consent of instructor.
Description: The ecological principles and applied practices of biological control of insects and weeds. Principles include the scientific basis of biological control; natural enemies and their biology; biological control methods; and biological control in invasive species and past management programs. May not be used for degree credit with ENTO 4513. Previously offered as ENTO 5512 and ENTO 5513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5523 Integrated Management of Insect Pests and Pathogens
Prerequisites: ENTO 2993 and PLP 3344.
Description: Modern theory and practices for management of insect pest and pathogens in plant production systems, emphasizing an ecologically-based, integrated approach. Basic concepts of pest management, decision-making, cost/benefit analysis and risk/benefit analysis. Previously offered as PLP 5524 and PLP 5523 and ENTO 5523.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5623 Advanced Biotechnology Methods
Prerequisites: BIOC 3653, BIOL 3023 or equivalent or consent of instructor.
Description: Principles of biotechnology and laboratory experience with basic experimental techniques used in biochemical and molecular biological research. Previously offered as ENTO 5623.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENPP 5700 Teaching Practicum in Plant Pathology
Prerequisites: Graduate student standing.
Description: Variable credit offering for graduate students who wish to develop skills in teaching, assessment and course development working in conjunction with a primary instructor. Previously offered as PLP 5700. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Entomology & Plant Pathology

ENPP 5710 Advanced Medical and Veterinary Entomology
Prerequisites: ENTO 4854.
Description: Special problems in methods of disease transmission, animal parasite control and the relationships existing between parasite and host. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours. Previously offered as ENTO 5710.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENPP 5723 Molecular Plant-Microbe Interactions
Prerequisites: PLP 3343 and BIOC 3653.
Description: This course covers the biochemistry, molecular biology and molecular genetics of pathogenic and symbiotic interactions between microbes and plants to explain the mechanisms by which microbe's infection and activation of plant immunity and symbiosis signaling pathways. Same course as BIOC 6663. Previously offered as ENTO 5723 and PLP 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 5833 Insect Molecular Biology
Prerequisites: ENTO 2993 and BIOL 3024 or equivalent or consent of instructor.
Description: Concepts and methods in molecular biology with emphasis on genetics of insects. Application of molecular techniques in insect biology. Previously offered as ENTO 5833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 5870 Scientific Presentations
Prerequisites: Consent of instructor.
Description: Preparation and delivery of scientific presentations, including 50-minute seminars, 10-minute talks, and posters. Same course as ENTO 5870. Previously offered as PLP 5870. Offered for 1 credit, max 5 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENPP 5923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalents.
Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. May not be used for degree credit with PLP 4923.Previously offered as PLP 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 5992 Career Skills and Professionalism for Scientists
Prerequisites: Graduate standing.
Description: For graduate students majoring in science-based fields, especially those nearing graduation. Skills needed for effective job application and interviewing, career development and advancement, communication with professional colleagues and the public, and personal professional development. Same course as ENTO 5992. Previously offered as PLP 5992.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENPP 6000 Research
Description: Research for the PhD degree. Previously offered as PLP 6000. Offered for variable credit, 1-12 credit hours, maximum of 36 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

Entomology (ENTO)

ENTO 2001 Introduction to Entomological Research
Description: Familiarize entomology majors with the department, faculty, and other students. Experience a broad overview of the field of entomology and how a degree in entomology can prepare you for many different opportunities and career paths.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 2003 Insects and Society (N)
Description: Influence of insects and related arthropods on human society. Current issues involving insects, society and the environment. View of insects in folklore and mythology. Basic biology and behavior of insects and use of insects as model systems for biological studies. A course for both majors and non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Natural Science Reasoning

ENTO 2223 Insects in Global Public Health (N)
Description: Biology of diseases carried by arthropods, including their historical and societal impacts focusing on the intersection of arthropod and human biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Natural Science Reasoning

ENTO 2890 Entomology and Plant Pathology Honors Add-on
Prerequisites: Honors Standing and concurrent enrollment in designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Honors Credit

ENTO 2993 Introduction to Entomology (LN)
Description: Basic biology and classification of insects and closely related animals. Overview of the ecological roles of insects in both natural and managed ecosystems. Previously offered as ENTO 2992 and ENTO 2023.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

ENTO 3001 Research Skills in Entomology
Description: Introduction to research opportunities in field and laboratory entomology. Focus on literature review, hypothesis formation, and development of a grant proposal.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3003 Livestock Entomology
Description: Economic importance, biology and control of pests affecting domestic animals. Biology of diseases carried by arthropods, including their impacts focusing on the intersection of arthropod and animal biology. Previously offered as ENTO 2091.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3263 Pests of Agriculture, Urban, and Natural Ecosystems
Description: Biology and ecology of arthropod pests in agricultural, urban, and natural ecosystems as well as the science underlying their management; exploration of the biology, management of arthropods as both pests and beneficial species in a range of systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3421 Horticultural Insects
Prerequisites: ENTO 2993 or concurrent enrollment.
Description: Identification, biology and control of pests attacking horticultural crops. Emphasis on pests injurious to vegetables, fruits, pecans, greenhouse plants, turf and ornamental trees and shrubs.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3461 Insects in Forest Ecosystems
Prerequisites: ENTO 2993 or concurrent enrollment.
Description: Identification and seasonal life history of insect pests and beneficial insects on shade trees in urban settings, in commercial forests, and in forest products.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3501 Entomology for Educators
Description: Hands-on laboratory course designed to provide high school science teachers, FFA or 4H leaders with all of the resources and background information needed to use insects as a model to teach scientific concepts. Curriculum and resources are provided at the level of 7-12th grade and may be adapted to other levels as needed.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3533 Arachnid Biology
Description: The biology of arachnids with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on ecological role in biodiversity and impact to public / veterinary health including the role mites, spiders, and ticks have in complex food webs.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4044 Insect Morphology and Physiology
Prerequisites: ENTO 2993 Introduction to Entomology.
Description: Function of insects and their organ systems and use of selected techniques for the study of insect physiology. May not be used for degree credit with ENTO 5044. Previously offered as ENTO 3043 and ENTO 3044.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4213 Invertebrate Conservation
Description: Fundamentals of conservation with emphasis on rare and endangered invertebrates including insects. Topics include the importance of enhancing services provided by insects, including pollination, decomposition, pest suppression, and contributions to food webs and how to manage threats from pesticides and habitat losses. May not be used for degree credit with ENTO 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4223 Ecological Methodology
Prerequisites: One course in either ecology or general biology.
Description: Use of insects and other invertebrates for describing and evaluating interactions of individuals and populations with their environments. Coverage of behavioral and physiological ecology on consequences to individuals; population and community ecology considered in dynamics of groups of organisms in ecosystems. May not be used for Degree Credit with ENTO 5223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4400 Special Topics
Prerequisites: Consent of instructor.
Description: Special topics in plant pathology, entomology or related fields. Same course as PLP 4400. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENTO 4464 Insect Biology and Classification
Prerequisites: ENTO 2993 or equivalent or consent of instructor.
Description: Insect phylogeny, taxonomy, behavior, morphology and physiology in the context of ecosystem function. Major roles of insects in shaping ecosystem diversity, as indicators of environmental integrity, and as vectors of plant and animal pathogens and parasites.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4484 Aquatic Entomology
Prerequisites: ENTO 2993 or instructor permission.
Description: Biology, taxonomy and ecology of insects and other invertebrates, inhabiting freshwater environments. Identification and biology of individual taxa. Roles of insects in aquatic ecology, as a forage base. May not be used for degree credit with ENTO 5484 or ZOOL 5484. Same course as ZOOL 4484. Previously offered as ENTO 4483.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4513 Biological Control
Prerequisites: ENTO 2993 or equivalent or consent of instructor.
Description: The ecological principles and applied practices of biological control of insects and weeds. Principles include the scientific basis of biological control; natural enemies and their biology; biological control methods; and biological control in invasive species and pest management programs. May not be used for degree credit with ENTO 5513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4573 Introduction to Forensic Entomology
Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4733 Insect Behavior and Chemical Ecology
Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.
Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4800 Entomology Practicum
Prerequisites: Consent of instructor.
Description: Supervised research or extension experience with faculty in the Entomology/Plant Pathology Dept. or with approved governmental agencies or private employers. Written report required at close of practicum. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENTO 4854 Medical and Veterinary Entomology
Prerequisites: ENTO 2993 or consent of instructor.
Description: Biology and control of arthropod vectors of disease and the diseases carried by arthropods. Course includes emphasis on scientific writing skills. No credit for students with credit in ENTO 5854.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 5003 Insect Biochemistry
Prerequisites: BIOC 3653 or equivalent or consent of instructor.
Description: Biochemical processes in insects and closely related arthropods with emphasis on pathways unique to this group. Biochemical aspects of arthropod-microbe and arthropod-host interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5213 Invertebrate Conservation
Description: Fundamentals of conservation with emphasis on rare and endangered invertebrates including insects. Topics covered include the importance of enhancing ecological services provided by insects, including pollination, decomposition, pest suppression, and contributions to food webs. May not be used for degree credit with ENTO 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5523 Integrated Management of Insect Pests and Pathogens
Prerequisites: ENTO 2993 and PLP 3344.
Description: Modern theory and practices for management of insect pests and pathogens in plant production systems, emphasizing an ecologically-based, integrated approach. Basic concepts of pest management, decision-making, cost/benefit analysis and risk/benefit analytics. Previously offered as ENTO 5524.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomol & Plant Path

ENTO 5573 Introduction to Forensic Entomology
Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5613 Host Plant Resistance
Prerequisites: ENTO 2993 and PLP 3343 or equivalent and a general genetics course; or consent of instructor.
Description: Interactions of plants and the herbivorous insects and pathogenic micro-organisms that attack them. Development and deployment of multiple-pest resistant cultivars in crop management systems. Same course as PLP 5613. Previously offered as ENTO 5612.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 5733 Insect Behavior and Chemical Ecology
Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.
Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

Entrepreneurship & Emerging Enterprises (EEE)

EEE 1010 Creativity, Innovation and Entrepreneurship
Description: Examination of the creative process. Exploration of underlying premises of creativity, exposure to basic frameworks and concepts, and examination of obstacles to creativity. Emphasis on practical applications. Intended for students in Creativity, Innovation and Entrepreneurship Learning Community. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 1020 Creativity, Innovation and Entrepreneurship II
Description: Examination of the underpinnings of entrepreneurship and innovation as each relates to the creative process. An applied perspective is adopted in exploring the interfaces between creativity, innovation and entrepreneurship. Intended for students in Creativity, Innovation and Entrepreneurship Learning Community. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 1661 Free Enterprise Essentials
Description: An exploration of the free enterprise system on the basis of both wealth creation and societal justice.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2003 Imagination In Entrepreneurship
Description: Students will learn creative theory, creativity tools and design thinking tools in order to develop and strengthen their creative thinking skills. Students will apply their learning to discover, define, analyze, and present creative solutions to important current interdisciplinary issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2023 Introduction to Entrepreneurship
Description: Focuses on both the entrepreneurial mindset and the process of launching and growing a new business. Reviews opportunities, innovation, new value creation, business context, existing firms and any area of business or life that pertains to entrepreneurship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2083 Entrepreneurship & Society
Description: In this unique course we study the relationship between entrepreneurship and society. Core questions are: How does society, politics, culture, etc. affect entrepreneurship? And how does entrepreneurship affect society, politics, and the economy? Students gain a uniquely broad understanding of entrepreneurship and political economy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2890 Introductory Honors Add-On for Entrepreneurship
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated entrepreneurship course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Honors Credit

EEE 3020 Business Plan Laboratory
Description: Provides any student regardless of background with a fundamental understanding of the logic and structure of a business plan and a knowledge of basic tools and concepts for putting together a great business plan for an original idea or concept. Applies to for-profit and non-profit ventures. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3023 Introduction to Entrepreneurial Thinking and Behavior
Prerequisites: EEE 2023.
Description: Overview of entrepreneurial thinking and behavior and its role in our lives. Examination of what it takes to start and sustain new concepts and ventures. Central focus is on the issues surrounding effective implementation of the entrepreneurial process across a variety of contexts. May not be used for degree credit with EEE 3673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3031 Entrepreneurial Value Creation in Society
Description: This 1-hour seminar presents an intellectual framework for understanding the economic and ethical implications of the forces that promote or hinder the creation of value in society. In particular, students will engage in readings, discussions, and interactions with guest lecturers, related to topics such as: individual liberty and responsibility, economic freedom, fairness and equality, scarcity and property rights, intellectual property, competition and anti-competition, cronyism, authoritarianism, and globalization and free trade. The aforementioned topics will be examined and discussed within the context of governments, institutions, business entities, and consumers, and their collective impact on innovation, entrepreneurship, and advances in social well-being. This seminar should be of interest to students from diverse majors and backgrounds.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3033 Women and Minority Entrepreneurship
Description: The course covers race, gender, and ethnicity as factors that impact entrepreneurship. Students look at the theoretical underpinnings of minority and women's entrepreneurship and their opportunities, challenges, and strategies when creating ventures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3673 Business Model Discovery
Description: Course teaches the fundamentals of testing the feasibility of a business idea and building an effective business model around a business concept. May not be used for degree credit with EEE 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3890 Advanced Honors Add-On for Entrepreneurship
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated entrepreneurship course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Honors Credit

EEE 4010 Special Topics in Entrepreneurship
Description: Examination of entrepreneurship issues. Specific topics vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4080 Riata Internship Program
Prerequisites: Consent of the Director of the Riata Center for Entrepreneurship.
Description: Professionally supervised experience building career-related skills, interests and personal development while making valuable contacts and references. Allows testing skills in real life projects with host companies. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entrepreneurship

EEE 4090 Study Abroad in Entrepreneurship
Prerequisites: Consent of the School of Entrepreneurship Department Head.
Description: Participation in a School of Entrepreneurship Study Abroad program. May not be used for degree credit with EEE 5090. Previously offered as EEE 3090. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4103 Entrepreneurship & the Economy
Description: Explore the role of entrepreneurship in the economy. Learn why the market economy is best understood not as a system or equilibrium but as an unfolding process with entrepreneurship as its driver. The course introduces the teachings of the Austrian school of economics, which focuses on economic understanding through reasoning and logic, not statistical analysis and mathematical modeling. Austrian economics recognizes entrepreneurial value creation as the core of the market process, that value lies in the eyes of the beholder, and that productive capital exists in complex structures intended to produce specific goods and services. Same course as ECON 4353. May not be used for degree credit with EEE 5103 or ECON 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4113 Dilemmas and Debates in Entrepreneurship
Description: Designed around a series of critical dilemmas confronted by entrepreneurs when creating and growing a venture. Entrepreneurs explore with students the issues surrounding these dilemmas in a structured format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4123 Entrepreneurship and The Arts
Description: Introduces entrepreneurship as a way of thinking and acting within the arts, including fine art, theatre, music and design. Key entrepreneurial competencies are explored, including opportunity recognition, risk management, resource leveraging, and innovation. May not be used for degree credit with EEE 5123. Previously offered as EEE 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4223 Entrepreneurial Marketing
Prerequisites: MKTG 3213.
Description: Examination of the roles of marketing in entrepreneurial ventures and entrepreneurship in the marketing efforts of any organization. Emphasis on marketing as it relates to risk management, resource leveraging and guerrilla approaches. Same course as MKTG 4263. May not be used for degree credit with EEE 5223 or MKTG 5223. Previously offered as EEE 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4253 International Entrepreneurship
Description: The course provides a survey of entrepreneurship under different global settings and the social, economic, cultural, and political challenges found in these settings. May not be used for degree credit with EEE 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4263 Corporate Entrepreneurship
Prerequisites: EEE 3023 or instructor permission.
Description: Examination of the application of entrepreneurship concepts and behaviors within established organizations, assessment of factors contributing to a company's entrepreneurial orientation, and identification of ways to foster high levels of entrepreneurship within firms. No credit for students with credit in EEE 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4313 Emerging Enterprise Consulting
Description: Students nearing the end of their studies work in teams in addressing problems and opportunities within existing entrepreneurial ventures. Using an established methodology, teams work with local entrepreneurs in establishing priorities and producing tangible deliverables that solve business needs. No credit for students with credit in EEE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4333 Launching a Business: The First 100 Days
Description: Addresses operational challenges in launching a new venture in its very formative stage. Attention is devoted to business formation, risk management, recordkeeping, go-to-market strategy, contracts, facilities, dealing with suppliers, and intellectual property, among other issues. May not be used for degree credit with EEE 5333. Previously offered as EEE 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4403 Social Entrepreneurship
Description: An examination of the application of entrepreneurship concepts and principles in addressing vexing social needs such as hunger, homelessness, environmental degradation, disease, domestic violence and inadequate access to education. Exploration of unique challenges in and approaches for developing and implementing viable business models for social ventures. May not be used for degree credit with EEE 5403. Previously offered as EEE 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4503 Designing, Prototyping, Testing
Description: This course provides students' a hands-on experience in making things. Students conceptualize, design, prototype, manufacture and sell a new product. The class exposes students to using 3D printers along with other makerspace tools. May not be used for degree credit with EEE 5503. Previously offered as EEE 3503.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entrepreneurship

EEE 4533 Growing Small and Family Ventures
Prerequisites: EEE 3023 or Instructor permission.
Description: Exploration of unique challenges involved when growing small and family-owned ventures. The life stages of emerging enterprises are examined. Issues addressed include resource needs, skill requirements, functional area development, and work-life balance. May not be used for degree credit with EEE 5513. Previously offered as EEE 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4603 Entrepreneurship Empowerment in South Africa
Prerequisites: Instructor permission required.
Description: Introduction to the supporting emerging enterprises assessment model. Includes focused attention on consulting within all the functional areas of an emerging enterprise operating under conditions of adversity. Periodic guest lectures by subject matter experts. Exposure to the local customs, business environment, and culture of entrepreneurs in a South African context. No credit for students with credit in EEE 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4610 Entrepreneurship Practicum
Prerequisites: EEE 3023 and instructor permission.
Description: Transfer of knowledge from entrepreneurship course work into practice through hands-on experiences, such as business development consulting projects, management of a venture capital fund and creation of a student-owned business. Course previously offered as MGMT 4610. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4653 Venture Capital
Description: Approaches to raising and managing working capital in emerging enterprises. Examination of the many sources of financing for start-up and early stage ventures. Attention devoted to determining financial needs of new ventures and formulating, determining valuations and formulating deal structures. Course previously offered as MGMT 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4663 Applied Creativity & Design Thinking
Description: Exploration of creativity and ideation as they relate to entrepreneurship. Perspectives on opportunity discovery and assessment are examined. Theoretical and conceptual foundations for the application of creativity to business problem solving are investigated. May not be used for degree credit with EEE 5663. Previously offered as EEE 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4703 Project Management for Entrepreneurship
Description: Understanding invaluable basic project management skills for startup entrepreneurs and innovators within existing organizations (intrapreneurs) and to successfully manage projects in general. No credit for students with credit in EEE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4813 The Entrepreneur: Hero or Villain (H)
Description: An exploration of the entrepreneur in both historic and contemporary settings through the lens of ideas, events, and fine arts. May not be used for degree credit with EEE 5813. Previously offered as EEE 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Human Heritage & Cultures

EEE 4863 Developing Innovative Ideas
Prerequisites: Permission of instructor.
Description: Course teaches the fundamentals of testing the feasibility of a business idea and building an effective business model around a business concept.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5080 Riata Internship Program
Prerequisites: Consent of the Director of the Riata Center for Entrepreneurship.
Description: Professionally supervised experience building career-related skills, interests and personal development while making valuable contacts and references. Allows testing skills in real life projects with host companies. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Entrepreneurship

EEE 5090 Study Abroad In Entrepreneurship
Prerequisites: Consent of the School of Entrepreneurship Department Head.
Description: Participation in a School of Entrepreneurship sanctioned Study Abroad program. May not be used for degree credit with EEE 4090. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5103 Entrepreneurship & the Economy
Description: Explore the role of entrepreneurship in the economy. Learn why the market economy is best understood not as a system or equilibrium but as an unfolding process with entrepreneurship as its driver. The course introduces the teachings of the Austrian school of economics, which focuses on economic understanding through reasoning and logic, not statistical analysis and mathematical modeling. Austrian economics recognizes entrepreneurial value creation as the core of the market process, that value lies in the eyes of the beholder, and that productive capital exists in complex structures intended to produce specific goods and services. Same course as ECON 5353. May not be used for degree credit with EEE 4103 or ECON 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5113 Entrepreneurship and Venture Management
Prerequisites: Admission to MBA program or instructor permission.
Description: Enterprise creation and problems faced by entrepreneurs in early growth stages of business ventures. An interdisciplinary problem-solving approach with emphasis on case studies and plans for new business ventures. Course previously offered as BADM 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5123 Entrepreneurship and The Arts
Description: Explores entrepreneurship as a way of thinking and acting within the arts, including fine art, theatre, music and design. The application of entrepreneurial framework competencies within the arts is examined. Attention is devoted to opportunity recognition, innovation, creative problem-solving, risk assessment and management, resource leveraging and related entrepreneurial capabilities. May not be used for degree credit with EEE 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5133 Dilemmas and Debates in Entrepreneurship
Prerequisites: Graduate standing.
Description: Designed around a series of critical dilemmas confronted by entrepreneurs when creating and growing a venture. Entrepreneurs explore with students the issues surrounding these dilemmas in a structured format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5200 Special Topics in Entrepreneurship
Prerequisites: Graduate standing.
Description: Examination of entrepreneurship issues. Specific topics vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5223 Entrepreneurial Marketing
Prerequisites: Admission to MBA program or instructor permission.
Description: Interplay of entrepreneurship concepts and marketing concepts, including the role of marketing in entrepreneurial ventures, and the role of entrepreneurship in a firm's marketing efforts. Emphasis is placed on how to address the significant changes taking place in markets and the modern marketing function. Same course as MKTG 5223. May not be used for degree credit with EEE 4223 or MKTG 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5233 Ideation, Creativity & Innovation
Description: Where do great business ideas come from? How do ideas become profitable products? This highly interactive course focuses on (1) How to use observational tools and other techniques to generate ideas, (2) how to test and vet the ideas, to separate the good from the bad, and (3) how to utilize ideas or innovations to launch a business or improve the prospects of an existing firm. Course introduces students to design thinking, which is a dynamic process for creative problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5253 International Entrepreneurship
Description: The course provides a survey of entrepreneurship under different global settings and the social, economic, cultural, and political challenges found in these settings. May not be used for degree credit with EEE 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5263 Corporate Entrepreneurship
Prerequisites: Admission to MBA program or instructor permission.
Description: Examination of the application of entrepreneurship concepts and behaviors within established organizations, assessment of factors contributing to a company's entrepreneurial orientation, and identification of ways to foster higher levels of entrepreneurship within firms. May not be used for degree credit with EEE 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5313 Emerging Enterprise Consulting
Prerequisites: Admission to the MBA program or instructor permission.
Description: Using an established methodology, student teams work with local entrepreneurs in establishing consulting priorities within their ventures and producing tangible deliverables that solve business challenges. All facets of business are addressed. May not be used for degree credit with EEE 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5333 Launching a Business: The First 100 Days
Description: Addresses operational challenges in launching a new venture in its very formative stage. Attention is devoted to business formation, risk management, record keeping, go-to-market strategy, contracts, facilities, dealing with suppliers, and intellectual property, among other issues. May not be used for credit with EEE 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5403 Social Entrepreneurship
Description: Advanced level examination of entrepreneurship in the social or non-profit sector. Investigation of issues surrounding creation and operation of new ventures that address vexing social needs and opportunities. Explores the application of entrepreneurship concepts and principles in a social context. May not be used for degree credit with EEE 4403 or EEE 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5493 Entrepreneurship and Architecture
Prerequisites: Admission to a graduate program.
Description: Introduction to entrepreneurship within the context of architecture, with direct application to architectural services, activities and products. Emphasis on implementing the entrepreneurial process in starting and sustaining new ventures that significantly shape the building environment. Same course as ARCH 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5503 Designing, Prototyping, and Testing Creative Products
Description: This course provides students' a hands-on experience in making things. Students conceptualize, design, prototype, manufacture and sell a new product. The class exposes students to using 3D printers along with other makerspace tools. May not be used for degree credit with EEE 4503 or EEE 5503.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entrepreneurship

EEE 5513 Growing Small and Family Ventures
Prerequisites: EEE 3023 or instructor permission.
Description: Exploration of unique challenges involved when growing small and family-owned ventures. The life stages of emerging enterprises are examined. Issues addressed include resource needs, skill requirements, functional area development, and work-life balance. May not be used for degree credit with EEE 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5603 Entrepreneurship Empowerment in South Africa
Prerequisites: Instructor permission required.
Description: Introduction to the supporting emerging enterprises assessment model. Includes focused attention on consulting within all the functional areas of an emerging enterprise operating under conditions of adversity. Periodic guest lectures by subject matter experts. Exposure to the local customs, business environment, and culture of entrepreneurs in a South African context. No credit for students with credit in EEE 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5610 Advanced Entrepreneurship Practicum
Prerequisites: EEE 5113.
Description: Transfer of knowledge from entrepreneurship course work into practice through hands-on experiences, such as business development consulting projects, management of a venture capital fund, and creation of student-owned business. Course previously offered as MGMT 5610. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5653 Venture Capital
Prerequisites: EEE 5113, admission to MBA program or instructor permission.
Description: Venture capital investing and the business development process. Exploration of how startups and early stage firms determine money needs, obtain financing and structure deals. No credit for students with credit in EEE 4653. Course previously offered as MGMT 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

EEE 5703 Project Management for Entrepreneurship
Description: Understanding invaluable basic project management skills for startup entrepreneurs and innovators within existing organizations (intrapreneurs) and to successfully manage projects in general. No credit for students with credit in EEE 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5713 Native American Entrepreneurship
Description: Understanding the impact entrepreneurship thinking and behavior can have for Native Americans. Strategies and tactics to increase the number of new business ventures launched by Native Americans. No credit for students with degree credit in EEE 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5813 The Entrepreneur: Hero or Villain
Description: An exploration of the entrepreneur in both historic and contemporary settings through the lens of ideas, events, and fine arts. May not be used for degree credit with EEE 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5863 CIE Scholar Practicum
Description: Course teaches the fundamentals of testing the feasibility of a business idea and building an effective business model around a business concept.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 5903 Applied Innovation I
Description: Addresses business startup fundamentals, decision-making tools and theory of innovative problem solving. Students will have the opportunity to interact with South African and Central American students participating in summer programs allowing best practices and experiences with students from other cultures and countries.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entrepreneurship

EEE 5993 Preparing Effective Business Plans
Prerequisites: ACCT 5183, ACCT 5283, FIN 5013, MGMT 5113, EEE 5113, EEE 5663 and EEE 5333.
Description: The critical issues involved with developing a business venture, through the process of developing a comprehensive business plan including feasibility analysis, actual development of the plan, and preparing to present the plan to investors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6200 Entrepreneurship Research Project
Prerequisites: Admission to doctoral program and instructor permission.
Description: Directed research projects for doctoral students. Students conduct publishable research on leading issues in entrepreneurship. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6213 Entrepreneurship: Theory and History
Prerequisites: Doctoral student standing and consent of instructor.
Description: Survey of the existing conceptual, theoretical, and practical links between entrepreneurship and other disciplines. Exploration of opportunities for cutting edge research on the boundaries of entrepreneurship and other disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6263 Theoretical Foundations in Entrepreneurship
Prerequisites: Doctoral student standing and consent of instructor.
Description: Broad survey of major topics in the field of entrepreneurship. The primary theoretical underpinnings of the field are covered as well as some of the common and/or promising methodological approaches to the study of entrepreneurial phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6343 Entrepreneurship Processes
Prerequisites: Doctoral student standing and consent of instructor.
Description: Current research that addresses important entrepreneurial questions and assesses "gaps" in those literatures. Strategies will be proposed to address these gaps. Focuses on refining students' skills in "mapping out" and writing research papers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6353 Advanced Research Methods in Entrepreneurship
Description: PhD-level seminar designed to promote high-quality social science research by providing relevant information, exercises, and practical advice related to conducting empirical research. This course complements the student’s doctoral education by focusing on both the conducting and writing of quantitative research. Ultimately, this course is an effort to help students to further develop skills related to data collection, statistical analysis, and writing of empirical research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 6363 Individual Theories in Entrepreneurship Research
Prerequisites: Admission to doctoral program.
Description: Analysis of research and theories related to the individual entrepreneur.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entrepreneurship

Environmental Science (ENVR)

ENVR 1113 Elements of Environmental Science (N)
Description: Application of biology, chemistry, ecology, economics, geology, hydrology, mathematics, physics, and other agricultural sciences to environmental issues. Addressing environmental problems from the standpoint of ethics, risk, and scientific and social feasibility. Emphasis on agricultural systems and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture
General Education and other Course Attributes: Natural Science Reasoning

ENVR 3101 Career Development in Environmental Sciences
Description: Develop career readiness skills in the environmental science field through resume building. Identify necessary skills to meet job requirements. Learn about career development resources and networking with environmental professionals. Understand the steps of the job/graduate school search, application and interview process.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 3113 Environmental Sampling and Analysis
Prerequisites: ENVR 1113 and CHEM 1215 or CHEM 1314 and BIOL 1114 or (BIOL 1111 and BIOL 1113) and STAT 2013; SOIL 2124 (or concurrently)
Description: Sampling and analysis for environmental characterization. Introduction of methods to analyze air, soil, water, vegetation, and biological samples. Applying state and federal criteria to evaluate environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4010 Internships in Environmental Science
Description: Supervised internships with business, industry, or governmental agencies in environmental policy, natural resources, and water resources. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 4033 Ecology of Invasive Species
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111); and PBIO 1404 and BIOL 1604 recommended.
Description: Ecological principles and their application to invasive species. Population level characteristics, community and ecosystem level effects of a wide variety of taxa including microbial, fungal, plant invertebrate and vertebrate examples. Global consequences and governmental policies/programs designed to limit the spread of invasives. Same course as NREM 4033. May not be used for degree credit with NREM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4112 Land Measurement and Site Analysis
Prerequisites: MATH 1513 or equivalent.
Description: Methods and techniques used to locate sites and evaluate physical conditions. Includes map interpretation and land description, use of Global Positioning Systems, Rectangular System of Land Description and determination of land elevations, areas and slopes. Same course as AST 4112. Previously offered as MCAG 3311 and MCAG 4112.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4113 Advanced Environmental Sampling and Analysis
Prerequisites: ENVR 3113.
Description: Advanced sampling and analysis methods for environmental assessment. Development of Sampling and Analysis Plan and Quality Assurance Project Plan. Emphasis on data synthesis and understanding relationships between environmental media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality Same course as SOIL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4500 Environmental Science Problems
Prerequisites: Upper-division standing, GPA of 2.50 or better, and consent of instructor.
Description: Individual or small group study of selected problems in environmental science. Course may be used twice for up to six credit hours to meet degree requirements. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 4512 Introduction to National Environmental Policy Act
Description: Outline of the National Environmental Policy Act (NEPA) documentation of potential environmental impacts for decision makers. Development of environmental assessment, environmental impact statements, and categorical exclusion documents that result from the NEPA processes.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4513 Nature-based Solutions
Prerequisites: Senior Standing
Description: Explore the definition of nature-based solutions (NbS) within environmental science and examples of current practices around the world. Examine NbS as a way to confront global environmental challenges. Utilize available guidance to suggest nature-based solutions to specific problems on a local scale. May not be used for degree credit with SOIL 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4573 Ethical Issues in Agriculture and the Environment
Description: Application of ethical concepts and economics theory to real-world agricultural and environmental issues. Recognition of the moral, ethical, and economic dimensions of value that aid in understanding and resolving the controversial aspects of these private and public issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4811 Capstone Project Planning
Prerequisites: Senior standing. ENVR 1113 and ENVR 3113 (with a grade of "C" or better) or ENVR 3113 concurrent.
Description: Collaborate in a team setting to develop a comprehensive proposal and strategic timeline addressing a real-world environmental science problem. Apply essential teamwork skills, integrate knowledge from prior coursework, and engage with environmental stakeholders, advisors, and experts. Develop a written proposal aimed at resolving the issue or implementing an innovative solution.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4813 Environmental Science Capstone
Prerequisites: ENVR 4811 with a grade of "C" or better. Must be taken the immediate semester after completion of ENVR 4811.
Description: Team-based project to develop and recommend solutions and communicate recommendations to stakeholders as part of a senior capstone project. Research results are presented by oral and written reports directly to stakeholders.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4893 Environmental Soil Chemistry
Prerequisites: SOIL 2124 and CHEM 1225 or CHEM 1515.
Description: Chemistry of soil systems with an emphasis on environmental health and quality. Topics include organic matter dynamics, the role of plant and microbial inputs, ion exchange processes, sorption phenomena, properties of clay minerals, and soil acidity. Same course as SOIL 4893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. Same course as ANSI 4913 and SOIL 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5000 Master's Thesis
Prerequisites: Approval of advisory committee and departmental steering committee.
Description: Research leading to master's thesis or report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5033 GIS Applications for Water Resources
Description: Application of theoretical and practical components of geographic information systems for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems. Equivalent to CIVE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5050 Readings in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course provides an avenue for masters students to extend their knowledge of Environmental Science topics not covered in other courses. This course is not available for doctoral students. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5123 Environmental Problem Analysis
Description: This course reviews the process of environmental problem analysis using current practical examples. This course draws on theories from various disciplines and applies appropriate techniques of analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5200 Special Topics in Environmental Science
Prerequisites: Graduate standing.
Description: Topics and issues in the broad field of environmental science. Group discussions and projects not covered by existing courses such as ecological risk assessment, water chemistry and environmental law. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5210 Seminar in Environmental Science
Prerequisites: Consent of the instructor.
Description: This seminar is offered as a special topics course for masters students. The theme of the seminar will vary in accordance with recent advances in environmental science and the interests of the faculty instructor. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5303 Issues in Environmental Sustainability
Description: The course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/ or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5313 Clean Air Act: Regulation, Compliance and Reporting
Description: This course will present an overview of the Federal Clean Air Act including regulatory history and framework, key concepts such as technology forcing, enforceability and adequate margin of safety. This course addresses the preparation of emissions calculations for reporting and permitting, discussion of emissions monitoring and control technologies, and review of reporting requirements and legal standards for compliance. Course will focus on U.S. Federal and State application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5353 Environmental Outreach and Education
Description: Techniques for environmental education and outreach programs for adults and children in the classroom and in the public arena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5403 Water Resource Management, Law, and Policy
Description: This course explores ways to secure the right to obtain and use water, as well as the law relating to water pollution permitting. Surface and groundwater resources will be the focus. The course covers doctrines of water allocation, groundwater management regimes, the public rights to water, federal and tribal water management and regulation of water resources, and the permitting regime under the Clean Water Act.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5413 Legal Framework for Resource Decision - Making and Public Land Management
Description: This course focuses on the federal, state, and local agencies, policies, strategies, and public law that influence public lands management of the United States, and, to a lesser extent, other countries. Focus is on the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands, with specific emphasis on the application of the National Environmental Policy Act (NEPA), jurisdiction, and contemporary issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5433 Environmental Law for Management Professionals
Description: This course blends fundamental environmental policy with legal and practical information for the management professional with emphasis on case and statutory histories. The course will explore why environmental laws and policies developed, how they are implemented, and how compliance is achieved. Students will gain the ability to evaluate the need for permits and know how to work practically and cooperatively with relevant state and federal agencies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5443 Hazardous Waste Regulations for Environmental Managers
Description: Covers air, water and waste permitting and plans as well as DOT transportation of hazardous materials and several OSHA standards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5453 Bioremediation for Environmental Managers
Description: Teaches the fundamental biological mechanisms that allow microorganisms and plants to degrade and/or remove contaminants from the environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5503 Environmental Management Practicum
Prerequisites: 18 graduate credit hours.
Description: This course explores methods of analyzing sustainable solutions to complex environmental, safety and health problems using an integrated team approach. This approach combines technical, legal, economic, and sociopolitical information into a coherent analytical framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5510 Environmental Management Internship
Prerequisites: ENVR 5503 and consent of program director.
Description: The student must identify and solve an environmental problem under the supervision of a competent professional environmental manager, and submit and defend a formal report presenting the problem, solution analysis methodologies, and recommended solution. The internship must involve at least 240 contact hours with the manager. The course is required of all masters students pursuing a plan of study in environmental management. Course previously offered as ENVR 5600. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5513 Advanced Environmental Impact Analysis
Description: National Environmental Policy Act (NEPA) outlines documentation of potential environmental impacts for decision makers. Development of environmental assessment, environmental impact statements, and categorical exclusion documents that result from the NEPA processes. Development of environmental assessment projects graded on a pass/fail basis.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 5523 Industrial Ecology
Prerequisites: General biology.
Description: Provides students with an overview and broad understanding of ecology principles as applied to an industrial setting. The course begins with an overview of general ecological principles such as ecosystem components and structures, biogeochemical cycles, energy flows, and properties of populations. The course concludes with a consideration of industrial ecology principles such as sustainability, pollution prevention, life cycle assessment and waste minimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5533 Genres of Environmental Writing
Description: This course focuses on three written genres: proposals, reports and academic articles. Students will learn the basic Introduction, Methods, Results, and Discussion (IMRD) structure. This structure is the basis of workplace reports and research articles in a wide variety of academic disciplines. Students will examine how the language features and organizational structure of these documents are influenced by their audience and context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5543 Environmental Management Systems
Description: This course introduces strategies for the design and operation of environmental management systems that reduce environmental impacts in conformance with ISO 14000 standards. Topics include aspect identification, impact assessment, impact reduction strategies, and management oversight. Other topics such as training, internal and external auditing, and integration with other management programs will also be addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5563 Transportation of Hazardous Materials
Description: This course will fulfill the Federal Department of Transportation (DOT) training requirements for General Awareness and Security Awareness in accordance with 49 CFR, Part 172, Subpart H. The course covers shippers' responsibilities associated with the many hazardous materials regulated by the DOT. Students will learn how to use the hazmat table and complete shipping papers; when to use specific hazard placards, markings and labels; and how to appropriately package specific hazardous materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5573 Applied Standards for Environmental Managers
Description: Foundational understanding of the complex regulatory framework related to waste management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5583 Safety Aspects for Environmental Managers
Description: This course fulfills OSHA's 30-hour General Industry training requirements as per 29 CFR 1910. The course provides environmental managers with specialized training to recognize, avoid, and prevent potential jobsite hazards. Students will gain a practical understanding of hazard analysis calculations and their application within the rules and regulations of OSHA.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5593 Hazardous Waste Operations and Emergency Response: HAZWOPER
Description: This course fulfills the off-site requirements of OSHA 40-hour Hazardous Waste Operations and Emergency Responses Standard (HAZWOPER) requirements for General Site Workers as per 29 CFR 1910.120. The course uses discussion, demonstration, simulations, and hands-on experiences to address personal protective equipment use, decontamination procedures, and tactics for establishing safe work areas at hazardous waste sites or in emergency response work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5613 Introduction to Environmental Toxicology & Industrial Hygiene
Description: An introduction to the basic principles, concepts, and issues associated with environmental toxicology and industrial hygiene. Environmental toxicology addresses biological, chemical and physical contaminants in the environment, their fate and transport, and their potential adverse effects. Also covers environmental factors that contribute to worker illness and injury resulting from exposure to chemical, physical and biological contaminants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5633 Physical Geology for Environmental Managers
Description: Overview of the physical and chemical nature of the solid and fluid earth. Focuses on how these physical attributes and processes influence interactions between humans and the earth's environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5673 Applied Hydrology & Hydrogeology for Environmental Managers
Description: Aspects of surface and groundwater of direct interest to environmental managers. Hydrology is considered from the perspective of irrigation and stormwater management. Hydrogeology is addressed as it applies to industrial and commercial sites. Emphasis on use of monitoring equipment and preparation of stormwater manager plans, groundwater investigation reports, and groundwater management plans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5703 Chemical Aspects of Environmental Science I
Prerequisites: CHEM 1225, MATH 2155.
Description: For non-chemists with a basic understanding of industrial environmental chemistry. For the environmental professional student in the calculations required for permitting, such as the Clean Air Act, the Clean Water Act, release reporting (CERCLA), RCRA and Industrial Hygiene. The chemical interpretation of MSDS sheets and review of basic chemistry for individuals sitting for professional examinations. Fundamental scientific basis required for dealing with any environmental area.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5713 Chemical Aspects of Environmental Science II
Prerequisites: ENVR 5703.
Description: A continuation of 5703. Applications of statistical methods for environmental monitoring, environmental sampling, chemical wastewater treatment, fugacity (air emission calculations) and environmental chemical analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5723 Field Investigation for Environmental Managers
Description: This course focuses on practical environmental investigations of soil, surface water, and groundwater contamination within an industrial setting. Students will research study sites to design, estimate cost, and implement actual field investigations. Samples will be analyzed and results used to make recommendations for operational improvement and/or remediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5733 Environmental Site Assessment
Description: This course introduces concepts associated with conducting environmental site assessments (ESAs) and contaminant remediation. Topics include review of federal regulations regarding site assessments, an overview of Phase I and Phase II ESA methodologies, proper soil/water sampling techniques, soil/geology/hydrogeology principles relating to environmental assessments, and various remediation strategies. The course includes field exercises simulating Phase I and Phase II ESA investigations, interpretation of historical aerial photos, and wetland identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5743 Environmental Impact Assessment
Description: The course teaches students how to understand and apply the National Environmental Policy Act to evaluate and document potential environmental impacts for decision makers. The course reviews the development of environmental assessment, environmental impact statement and categorical exclusion documents that result from the NEPA process. Emphasis is placed on the development of an environmental assessment program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5753 Environmental Site Remediation
Description: Introduction to concepts associated with environmental site remediation. Emphasis will be placed on the application and assessment of site clean-up.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5823 Watershed Management
Description: This course provides an overview of watershed management that integrates law, politics, economics, watershed science, engineering, education, social marketing, and conflict resolution. Students will also learn how to critically evaluate watershed management programs. Field trips to watersheds are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5853 Field Stream Assessment
Description: Techniques for evaluating the health of streams. Laboratory techniques for fish and aquatic insect collection, habitat assessments, chemical water quality analysis, and stream discharge measurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6000 Doctoral Research for Dissertation
Prerequisites: Approval of advisory committee.
Description: Research leading to the PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 24 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6011 Survey of Environmental Science
Description: This course introduces newly admitted environmental science students to environmental research conducted by faculty at OSU. The course also helps students prepare interdisciplinary plans of study that support their professional and research goals. It is required of all ES doctoral students during their first year of enrollment. The course may also be taken by ES masters students, but is not required.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6023 Research Methodologies in Environmental Science
Prerequisites: Permission of student's research adviser.
Description: Introduction to research techniques and literature in environmental science for doctoral students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6031 Interdisciplinary Research Report Preparation
Prerequisites: ENVR 6023 or AGED 5983 and permission of the student's research adviser.
Description: This course teaches students how to prepare and defend interdisciplinary dissertations. Students will learn how to interpret results, articulate findings, justify conclusions, and identify implications. They will also learn how to deliver professional conference presentations and write professional papers. The course requires permission of the student's research adviser. The course is required of all ES doctoral students just before they intend to prepare and defend their dissertations. ES master's students who want to learn more about preparing and defending a thesis may also enroll.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6050 Advanced Readings in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course provides an avenue for doctoral students to extend their knowledge of environmental science topics not covered in other courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6210 Advanced Seminar in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course is offered as a special topics course for doctoral students. The theme of the course will vary in accordance with recent advances in environmental science and the interests of the faculty instructor. No masters student may enroll in this course. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6310 Advanced Topics in Environmental Science
Prerequisites: 24 credit hours of graduate credit and permission of instructor.
Description: This course covers current topics and issues in environmental science. Though the topics will vary, each course will typically include environmental assessment, environmental sustainability and environmental policy. Group discussions and team projects may be required. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6503 Advanced Environmental Management Practicum
Prerequisites: 30 graduate credit hours.
Description: This course discusses and compares advanced methods of analyzing sustainable solutions to complex environmental, safety and health problems. A framework for integrating technical, legal, economic, and sociopolitical analysis into a risk-based model will be developed and applied to a real-world case study. Required for doctoral students pursuing a plan of study in environmental management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6516 Advanced Environmental Management Internship
Prerequisites: ENVR 6503 and consent of program director.
Description: The student must identify and solve an environmental problem in collaboration with a competent professional environmental manager, and submit and defend a formal report presenting the problem, problem and solution analysis methodologies, and recommended solution. The internship must involve at least 480 contact hours with the manager. The course is an experience for all ES doctoral students pursuing a plan of study in environmental management.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6623 Social Aspects of Environmental Planning
Description: This course develops students' theoretical and practical understanding of social aspects of environmental planning. The course addresses topics such as social impact assessment, the role of public involvement, environmental justice, and other social considerations in the implementation of environmental programs. It will also demonstrate the application of social science techniques in environmental planning and prepare students for the application of social perspectives in environmental decision-making - in both the public and private sectors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

Family Financial Planning (FFP)

FFP 2003 Financial Health for Helping Professionals
Description: Develop and build healthy financial habits and maintain financial wellness through college and beyond.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 2613 Financial Perspectives throughout the United States (DS)
Prerequisites: Must have completed 20 credit hours.
Description: An introduction to the personal relationship with money focusing on similarities and differences between Race/Ethnicity, Sex/Gender, Aging, Religion, and Family Structure. This course provides an overview of history, present day application, seeks solutions, and encourages reflection on the personal and societal relationships with money.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity, Society & Human Behavior

FFP 3803 Fundamentals of Family Financial Planning
Description: An introduction to issues and concepts related to the individual and family financial planning process and the client/planner relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3813 Insurance Planning for Families
Description: Aspects of risk to individuals and families and covers the tools and strategies that can be used to reduce and manage those risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3823 Retirement Planning for Families
Description: Study of considerations in retirement planning for individuals and families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3833 Estate Planning for Families
Description: Aspects of the estate planning process and legislation applied to the needs of families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4303 Financial Counseling
Prerequisites: Must have completed 20 credit hours.
Description: This course emphasizes the development of professional skills for assisting individuals and families to become responsible financial managers through the financial counseling process. The course will focus on skills that need to be attained to become a helping professional with an expertise in financial planning including: relationship building, listening skills, practice standards, intake and record keeping, client action plans and agreements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4813 Income Tax Planning for Families
Description: A review of tax laws and the tools that can be used for personal income tax planning to meet individual and family goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4823 Investment Planning for Families
Description: The essentials of how investment planning informs individual and family economic goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4933 Capstone: Financial Plan Development
Description: Addresses the application of all aspects of financial planning. Development and presentation of a comprehensive financial plan to a client.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5110 Directed Studies in Family Financial Planning
Description: Directed individual study in Family Financial Planning.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5243 Master's Capstone
Description: An in-depth application of theoretical models and philosophies related to area of specialization.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

FFP 5253 Family Economics
Description: Issues related to the economics of families, household production, and human capital development; economics of crises public policy and family life cycle spending, saving and borrowing; special attention to the role of ethics in family economic issues. A theoretical and a research perspective used to illuminate the concepts in the course. Web-based instruction. Previously offered as HS 5253 and HES 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5303 Fundamentals of Family Financial Planning
Description: The nature and functioning of financial systems, including currencies, markets, monetary and fiscal policy, and supply and demand for land, labor and capital. Focus on the impact of global financial interdependence on individuals and families in the U.S. Current and emerging issues, as well as current research and theory relative to financial systems. Web-based instruction. Previously offered as HES 5303 and HS 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5333 Theories and Research in Family Financial Planning I
Prerequisites: Admission to the Great Plains IDEA FFP program.
Description: Introduction of the social science of family finances. Focus on theories of family functioning, microeconomic theory related to family resource allocation decisions, the family as an economic unit, and the interaction of economy and families. Previously offered as HS 5333. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5343 Theories and Research in Family Financial Planning II
Prerequisites: Admission to the Great Plains IDEA FFP program and FFP 5333.
Description: Microeconomic theory as it relates to family resource allocation decisions, theories of household behavior, the lifecycle hypothesis, behavioral economics, behavioral finance, theories of behavioral change, and psychological theories of family well-being. Focus on empirical research investigating household financial decision-making. Previously offered as HS 5343. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5353 Financial Counseling for Family Financial Planning
Description: Theory and research regarding the interactive process between client and practitioner, including communication techniques, motivation and esteem building, counseling environment, ethics, and data intake, verification, and analysis. Legal issues, compensation, technology to identify resources, information management, and current or emerging issues. Web-based instruction. Previously offered as HES 5353 and HS 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5403 Estate Planning for Families
Description: Fundamentals of estate planning process, estate settlement, estate and gift taxes, property ownership and transfer, and powers of appointment. Tools and techniques in implementing effective estate plan, ethical considerations in providing estate planning services, new and emerging issues in the field. Experience with case studies in developing estate plans for varied family forms. Web-based instruction. Previously offered as HS 5403 and HES 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5453 Retirement Planning, Employee Benefits and the Family
Description: Study of micro and macro considerations for retirement planning. Survey of various types of retirement plans, ethical considerations in providing retirement planning services, assessing and forecasting financial needs in retirement, and integration of retirement plans with government benefits. Web-based instruction. Previously offered as HS 5453 and HES 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5483 Military Family Financial Issues
Description: An overview of topics relevant to the financial planning process, adapting topics to address the unique needs of and resources available to military service members and their families. Topics include status of service member; financial readiness; financial, risk, investment, tax, retirement and estate management; record keeping; cash flow management; credit and debt management; savings; education planning; and special topics. Web based instruction. Previously offered as HS 5483 and HES 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5503 Housing and Real Estate for Family Financial Planning
Description: Overview of the role of housing and real estate in financial planning process from a theoretical perspective. Taxation, legal aspects, mortgages, and financial calculations related to home ownership and real estate investments. New and emerging issues in the context of housing and real estate. Role of ethics in financial planning including housing and real estate. Previously offered as DHM 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5553 Insurance Planning for Families
Description: Study of risk management concepts, tools, and strategies for individuals and families, including life insurance; property and casualty insurance; liability insurance; accident, disability, health, and long-term care insurance; and government-subsidized programs. Current and emerging issues and ethical considerations. Relationships between investment options and employee/employer benefit plan choices. Web-based instruction. Previously offered as HS 5553 and HES 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5603 Investing for the Family's Future
Description: Evaluation of investment markets for the household. Analysis of how families choose where to put their savings. Using the family's overall financial and economic goals to help make informed decisions about which investments to choose. Web-based instruction. Previously offered as HS 5603 and HES 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5653 Personal Income Tax for Family Financial Planning
Description: Information on income tax practices and procedures including tax regulations, tax return preparation, tax audit processes, appeals process, preparation for an administrative or judicial forum, and ethical considerations of taxation. New, emerging issues related to taxation. Family and individual case studies practice in applying and analyzing tax information and recommending appropriate tax strategies. Web-based instruction. Previously offered as HS 5653 and HES 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5663 Survey of Digital Investment Assets
Prerequisites: FFP 5603
Description: Foundational overview of the increasing popularity of digital investment assets, including cryptocurrencies, decentralized protocols and platforms like blockchain technology, and tokens. Students will explore the benefits and risks of investing in digital assets and how this emerging asset class fits within the context of Modern Portfolio Theory. Regulatory challenges and essential financial planning considerations like portfolio management, taxation and estate planning will be examined, in addition to best practices for client communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5703 Professional Practices in Family Financial Planning
Description: Challenges of managing financial planning practices, including business valuation, personnel, marketing, client services, ethics and technological applications. Relying on theoretical as well as applied approach, analysis of case studies that provide relevant, practical exposure to practice management issues, with strong emphasis on current research findings. Web-based instruction. Previously offered as HS 5703 and HES 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5803 Case Studies in Family Financial Planning
Prerequisites: FFP 5303 and FFP 5453 and FFP 5553 and FFP 5603 and FFP 5653 or consent of advisor.
Description: Professional issues in financial planning, including ethical considerations, regulation and certification requirements, communication skills, and professional responsibility. Utilization of skills obtained in other courses and work experiences in the completion of personal finance case studies, the development of a targeted investment policy, and other related financial planning assignments. Web-based instruction. Previously offered as HS 5803 and HES 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

Finance (FIN)

FIN 1101 Money 101
Description: Money 101 provides students a fun opportunity to learn basic money management skills. Students will learn about various ways to save for and pay for college and consumer loans. Students will also learn about credit scores, short and long-term savings options, smart spending, and risk management.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2121 Managing Revenues from Name, Image, and Likeness
Description: Managing Revenues from Name, Image and Likeness provides students an opportunity to learn basic financial knowledge and skills necessary to make financial decisions during college and over their lifetime. Students will also learn the technical aspects of money including debt, taxes, investing, credit, savings, smart spending, and risk management. The course will focus on basic money management with a special emphasis on navigating the potential financial ramifications of the Name, Image and Likeness (NIL) rights. No prior knowledge is required and no textbook is required to be purchased.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2123 Personal Finance
Description: A first course in the management of the individual's financial affairs. Budgeting, use of credit, mortgage financing, investment and estate planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2550 Selected Topics in Finance
Description: Basic topics in finance. Topics are updated each semester. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2713 Real Estate Principles and Practices
Description: This class is a survey course designed to expose the student to the basics of buying, selling, management and investment in residential and commercial real estate. Excel training is crucial and will be provided. Topics include real estate marketing procedures, agency and brokerage management, property inspection and appraisal, leased and rental properties, and commercial real estate investment and property management. An overview of the 2007-2009 global financial crisis will illustrate the important role of the real estate, banking and investment industries in creating the crisis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3113 Principles of Finance
Prerequisites: ACCT 2003 (or ACCT 2103 and ACCT 2203)
Description: Operational and strategic financial problems including allocation of funds, asset management, financial information systems, financial structure, policy determination and analysis of the financial environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3613 General Insurance
Prerequisites: FIN 3113.
Description: Introduction to the theory and general principles of insurance. A broad analysis of the elements and operation of property, casualty, health and life insurance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3713 Real Estate Investment and Finance
Prerequisites: FIN 3113.
Description: An introductory course in real estate investment and finance. Financing real estate, financial leverage and financial planning, the institutional structure of mortgage lending, managing risks, investment strategies and decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4003 Introduction to Energy Business
Prerequisites: Sophomore standing.
Description: This class covers topics related to energy business broadly defined, including financial decision making. The main focus will be on the oil and gas industry but will also cover renewable energy issues, historical events, geopolitics, and supply/demand in energy. May not be used for degree credit with FIN 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4023 Retirement and Employee Benefit Planning
Prerequisites: FIN 3113
Description: A comprehensive study of the fundamentals and techniques of retirement and employment benefits planning, focusing on regulatory frameworks, retirement plan types, and distribution strategies. Students will learn to evaluate, select, and administer appropriate retirement plans, understanding the tax implications and benefits of each option.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4033 Estate Planning
Prerequisites: FIN 3113
Description: A comprehensive study of the fundamentals and techniques of estate planning. Topics include: property transfers, taxation as applied to estate planning, goals, probate, charitable transfers, estate planning for closely held business interests, will and trust, bypass, gift, liquidity, and postmortem planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4053 Study Abroad: Contemporary Global Impacts in Finance
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4063 Applied Financial Studies
Prerequisites: Consent of the instructor.
Description: Structured internship or field project with supporting academic study. Previously offered as FIN 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4103 Securities Industry Essentials
Prerequisites: FIN 3113
Description: The Financial Industry Regulatory Authority (FINRA) has introduced the Securities Industry Essentials® (SIE®) Exam, which is aimed at individuals aspiring to become professionals in the securities industry. The FIN SIE Course is designed to equip students with the necessary knowledge and skills pertaining to the subjects covered in the FINRA SIE exam. May not be used for degree credit with FIN 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4113 Financial Markets and Institutions
Prerequisites: FIN 3113, and ECON 3313 or concurrent enrollment in ECON 3313.
Description: Money and capital markets, flow-of-funds, commercial banks and other financial intermediaries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4213 International Financial Management
Prerequisites: FIN 3113.
Description: Financial management topics unique to business firms operating in an international environment. Topics include global economic and business environments, international monetary system, foreign exchange markets, foreign exchange risk and management, foreign direct investment, and trade finance. Recent and current international financial events.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4223 Investments
Prerequisites: FIN 3113 and STAT 2013, STAT 2023, or STAT 2053.
Description: Various approaches to selecting and timing investment opportunities, e.g., common stocks, bonds, commodities and options. Modern concepts of portfolio theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4233 Financial Planning Capstone Course
Prerequisites: FIN 3113; Also, the student must have already taken at least two of the following courses with a grade of C or better: FIN 3613, FIN 4023, FIN 4033, FIN 4223, and/or ACCT 4703.
Description: Capstone course in the Financial Planning (FP) area. FP topics and process covered to give students the ability to deliver professional and competent financial services to the public. Students study mini-cases and write a comprehensive financial plan as key requirements of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4333 Financial Modeling
Prerequisites: FIN 3113 and STAT 2013, STAT 2023, or STAT 2053.
Description: Theories and practice applicable to the financial administration of a firm. A variety of teaching methods used in conjunction with readings and cases to illustrate financial problems and techniques of solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4343 Valuation and Financial Modeling
Prerequisites: FIN 3113, FIN 4333 with a "B" or better.
Description: This course focuses on valuing entire business enterprises. The major course topic is estimating corporate value via the comparable companies approach, the discounted cash flow (DCF) approach, and the precedent transactions approach. May not be used for degree credit with FIN 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4363 Energy Finance
Prerequisites: FIN 3113.
Description: Introduction to basic terminology, industry structure, and supply and demand outlook in the oil, gas and power industries. A broad analysis of applications in the energy industry including financial statement analysis, valuation, risk analysis in capital budgeting, risk management, alternative energy topics and energy specific case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4443 Banking Strategies and Policies
Prerequisites: FIN 3113, and ECON 3313 or concurrent enrollment in ECON 3313.
Description: Theories and practices of bank asset management; banking markets and competition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4453 Bank Decision Simulation and Analysis
Prerequisites: FIN 3113 and FIN 4443.
Description: Student teams assume the roles of senior bank officers, making decisions regarding bank assets, funding, product pricing, financial leverage, profit enhancement, risk management, and staffing. Decisions implemented through computer simulation, incorporating the decisions into an environment where the decisions of competing management teams and the local economy determine bank profitability and shareholder value. Evaluation of students' abilities to create shareholder value and effectively communicate planning and analysis through written and spoken reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4550 Selected Topics in Finance
Prerequisites: FIN 3113 or consent of instructor.
Description: Advanced topics in finance. Topics are updated each semester. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4633 Essentials of Quantitative Finance
Prerequisites: FIN 3113
Description: This course covers applying quantitative financial methods using the Python programming language. Finance topics are covered as a means of learning Python. Students will learn how to use programming and large datasets to analyze investments and securities markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4653 Bond Markets
Prerequisites: FIN 3113 and FIN 4113.
Description: Provides a broad introduction to treasury, corporate, municipal, mortgage backed, and asset backed bond markets. The analytical techniques for valuing bonds, quantifying their exposure to changes in interest rate and credit risk exposures and investment decision-making are explored. Concepts are applied through case studies and projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4713 Real Estate Valuation & Appraisal
Prerequisites: FIN 3713
Description: This course introduces students to the real estate valuation process for both residential and income-producing properties. The course begins with a review of real property interests, the economic foundations of value, and the market in which real property interests are traded. Real estate valuation techniques and tools are covered. The course highlights the function of valuation within the broader real estate market and explores strengths and weaknesses of traditional approaches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4763 Financial Futures and Options Markets
Prerequisites: FIN 4223.
Description: Foundation in financial futures and options markets. A balance of institutional detail necessary to understand the structure of these markets and the theoretical developments necessary to apply the contracts to various uses. The use of financial futures and options to manage price risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4813 Portfolio Management
Prerequisites: FIN 3113 and FIN 4223 with a grade of "C" or better and consent of instructor.
Description: Overview of portfolio management from the point of view of a trust officer, mutual fund manager, pension fund manager, or other manager of securities. Emphasizes the need of financial managers for an understanding of problems, trends, and theory of portfolio management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4833 Student Managed Investment Fund
Prerequisites: FIN 4223 with a grade of "B" or better AND consent of instructor.
Description: Security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of current portfolio holdings and prospective holdings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4843 Risk Management
Prerequisites: FIN 3113.
Description: Introduction to relevant analytical tools necessary for the effective management of risk. Previously offered as FIN 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4853 Student Managed Investment Fund II
Prerequisites: FIN 4833 with a grade of "B" or better and consent of instructor.
Description: Advanced security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of publicly traded companies. Increased emphasis on portfolio management and asset allocation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 5000 Masters Research and Thesis
Prerequisites: Good standing in Master of Science in quantitative financial economics program and consent of program coordinator.
Description: Research and thesis for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5003 Introduction to Energy Business
Description: This class covers topics related to energy business broadly defined, including financial decision making. The main focus will be on the oil and gas industry but will also cover renewable energy issues, historical events, geopolitics, and supply/demand in energy. May not be used for degree credit with FIN 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5010 Finance Projects and Independent Studies
Prerequisites: Good standing in graduate program and consent of project adviser and consent of department head.
Description: Graduate projects and independent study in finance. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5013 Business Finance
Prerequisites: Admission to a SSB graduate program and ACCT 5183 or equivalent, or consent of MBA director or instructor.
Description: Introduction to key business finance polices and to tools, techniques, and institutional background needed to make effective financial decisions. Learning goals include: (1) general understanding of financial markets and the corporate organization, (2) understanding the concept of time value of money and its applications, (3) learning about fixed income and equity securities and their valuation, (4) understanding capital budgeting principles and their evaluation, (5) estimation of cost of capital and its role in financial decisions, and (6) introduction to capital structure policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5053 Theory and Practice of Financial Management
Prerequisites: Admission to a SSB graduate program and FIN 5013 or equivalent and ACCT 5183 or equivalent or consent of the MBA director or instructor.
Description: Course is intended for students aspiring to careers in financial management in corporations and/or financial institutions. Extends FIN 5013 to cover real-world applications in financial statement analysis, corporate financial decisions including advanced capital project evaluation, corporate risk management, mergers & acquisitions, and corporate restructuring. Cases, problems, and readings to illustrate various financial problems and techniques of solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5103 Securities Industry Essentials
Description: The Financial Industry Regulatory Authority (FINRA) has introduced the Securities Industry Essentials® (SIE®) Exam, which is aimed at individuals aspiring to become professionals in the securities industry. FINRA SIE Exam is now a requirement for many entry level securities industry jobs. The FIN 5103 SIE Course is designed to equip students with the necessary knowledge and skills pertaining to the subjects covered in the FINRA SIE exam. May not be used for degree credit with FIN 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5153 Corporate Financial Strategy
Prerequisites: Admission to a SSB graduate program and FIN 5013 or equivalent and ACCT 5183 or equivalent or the consent of the MBA director or instructor.
Description: Strategic financial decisions and their implementation, including capital structure policy, capital budgeting, risk assessment and management, corporate restructuring, management performance assessment, cost of capital, financial resource planning, dividend policy, and capital raising. Familiarity with basic financial tools and techniques including time value of money, asset pricing and security valuation, and financial statement analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5213 International Business Finance
Prerequisites: FIN 5013.
Description: Theories and financial management practices unique to business firms which operate in, or are influenced by, an increasingly global economy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5223 Investment Theory and Strategy
Prerequisites: Admission to a SSB graduate program, 5013 or the consent of MBA director or the instructor.
Description: Selected investment topics and advanced portfolio management techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5243 Innovations in Quantitative Finance
Prerequisites: FIN 5013.
Description: Concepts in this course will cover technical skills important for a quantitative analyst with emphasis on programming and application development. Topics include trading algorithms, energy demand modeling, risk measures, advanced portfolio optimization under constraints, among other topics. Special attention will be given to concepts and applications that investors, money managers, wealth managers, financial managers, and risk managers utilize in their decision making and risk management processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5333 Corporate Governance
Prerequisites: FIN 5013.
Description: The theoretical and applied analysis of the governance structure of a corporation. The interconnections of the board of directors, CEO, management and shareholders. Case problems and readings address the advantages and disadvantages of various corporate governance practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5343 Valuation and Financial Modeling
Prerequisites: FIN 5013.
Description: This course focuses on valuing entire business enterprises. The major course topic is estimating corporate value via the comparable companies approach, the discounted cash flow (DCF) approach, and the precedent transactions approach, and the precedent transactions approach. May not be used for degree credit with FIN 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5363 Energy Finance
Prerequisites: FIN 5013 or equivalent.
Description: Introduction to basic terminology, industry structure, and supply and demand outlook in the oil, gas, and power industries. A broad analysis of applications in the energy industry including financial statement analysis, valuation, risk analysis in capital budgeting, risk management, alternative energy topics and energy specific case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5400 Practicum In Quantitative Finance
Prerequisites: Consent of Director of MS in Quantitative Finance and satisfactory completion of six hours of FIN 5000 level courses.
Description: Professionally supervised experience in Quantitative Finance projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the Instructor and must reflect graduate level analysis. May consist of full or part-time Quantitative Finance experience, on campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the Instructor. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5550 Special Topics in Finance
Prerequisites: Consent of instructor.
Description: Theoretical and applied aspects of specialized financial areas. Evaluation of models, current trends and problems. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5633 Computational Finance
Description: This course covers applying quantitative financial methods using the computer programming language, Python. Finance topics are covered as a means of learning Python. Students will learn advanced Python programming topics including Monte Carlo simulation, partical differential equations, option valuation, data analysis, and other financial models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5653 Bond Markets
Prerequisites: Consent of the instructor.
Description: This course provides a mathematically rigorous introduction to fixed income markets. Specific attention is given to 1-factor and 2-factor models, their theoretic foundations and how to calibrate them to market data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5763 Derivative Securities and the Management of Financial Price Risk
Prerequisites: FIN 5013 or consent of instructor.
Description: Differing amounts of financial price risk for individuals and corporations in volatile financial environment. The development of arbitrage-based models for the pricing of derivative securities, and the use of a full range of derivative securities to manage exposure to financial price risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5773 Financial Engineering
Prerequisites: MATH 4513 and FIN 5763 or consent of instructor.
Description: Techniques for the design, development and implementation of innovative financial instruments and processes to the formulation of creative solutions of problems in finance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5813 Portfolio Management
Prerequisites: FIN 5223
Description: Overview of portfolio management from the point of view of a trust officer, mutual fund manager, pension fund manager, or other manager of securities. Emphasizes the need of financial managers for an understanding of problems, trends, and theory of portfolio management. May not be used for degree credit with FIN 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5833 Student Managed Investment Fund
Prerequisites: Graduate standing AND consent of instructor.
Description: Security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of current portfolio holdings and prospective holdings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5853 Student Managed Investment Fund II
Prerequisites: FIN 5833 with a grade of "B" or better "and" consent of instructor.
Description: Advanced security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of publicly traded companies. Increased emphasis on portfolio management and asset allocation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5883 Quantitative Financial Applications
Prerequisites: FIN 5223 and consent of the head of the department.
Description: Application of financial solution techniques through directed case work in appropriate business and public sector settings. Simulation, small group instruction and field-based experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 6053 Financial Theory and Corporate Policy
Prerequisites: Consent of the instructor.
Description: Theoretical and empirical underpinnings of modern corporate finance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 6660 Seminar in Finance
Prerequisites: Consent of instructor.
Description: Advanced research with emphasis on theoretical problems and solutions. Selected topics covered. Offered for variable credit, 3-6 credit hours, maximum of 12 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

Fire and Emergency Management Program (FEMP)

FEMP 3103 Introduction to Emergency Management (S)
Description: An overview of the history and philosophy of the current emergency management system. Concepts, issues and programs associated with the development of an emergency management program. Local, state and federal roles and responsibilities for responding to disasters and emergencies with emphasis on man-made natural and technological hazards. This course is the same as POLS 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage
General Education and other Course Attributes: Society & Human Behavior

FEMP 3733 Emergency Management: Preparedness and Response
Description: Introduction to preparedness and response activities for emergency personnel and managers. Covers components, policies, programs and organizations related to preparedness and response. Illustrates course concepts with case studies. This course is the same as POLS 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 3763 Emergency Management: Recovery and Mitigation
Description: Introduction to recovery and mitigation activities for emergency personnel and managers. Covers components, policies, programs and organizations related to recovery and mitigation. Illustrates course concepts with case studies. This course is the same as POLS 3763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 4000 Topics in Emergency Management
Description: Examination of timely topics and issues in Emergency Management. May be repeated with different topics. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 4050 Independent Study in Emergency Management
Description: Application of major relevant theoretical perspectives to selected case studies of problems and issue areas in emergency management. Theories and case studies selected in collaboration between faculty and student. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FEMP 5000 Thesis
Prerequisites: Graduate standing and permission of instructor.
Description: Thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Same course as POLS 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FEMP 5013 Research Design & Methodology
Prerequisites: Graduate standing.
Description: Overview of research design methods and skills necessary for conducting research projects, including: conceptualization and operationalization, literature review, deductive and inductive theorizing, hypothesis testing, quantitative and qualitative data collection and analysis, maintaining research records, experiment design, data validation, result presentation, and research ethics. Same course as FSEP 5013 and MERO 5013. Previously offered as POLS 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5023 Quantitative Methods for Fire and Emergency Management I
Prerequisites: Graduate standing and FEMP 5013 or consent of instructor.
Description: Fundamental methodological issues in the scientific study of fire administration and emergency management. Computer data manipulation and analysis. This course is the same as POLS 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5113 Fire and Emergency Services Administration Theory and Practice
Description: Examines the content and historical evolution of fire administration including terminology, concepts, theories, and methods employed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5123 Emergency Management Theory and Practice
Description: Examines the content and historical evolution of emergency management, current state of science including terminology, concepts, theories, and methods employed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5213 Disaster Response
Prerequisites: Graduate standing.
Description: Review of scientific literature on human and organizational behavior in response to disasters. Identification of actors involved in emergency response, their roles and responsibilities. Examination of human response in context of organizational structures and resources including emergency operating centers. Review of local and national government response policies. This course is the same as POLS 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5223 Preparedness and Planning
Prerequisites: Graduate standing.
Description: Planning and training for hazards and disaster management at the organizational level; review of public education and preparedness efforts at the household and community level, review of research on disaster planning. This course is the same as POLS 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5233 Disaster Recovery
Prerequisites: Graduate standing.
Description: Processes, conditions and components of recovery in disaster contexts. Topics include environmental, economic, housing, infrastructure and policy. Roles of voluntary organizations; securing and managing resources. This course is the same as POLS 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5243 Mitigation
Prerequisites: Graduate standing.
Description: Structural and non-structural mitigation approaches to hazard reduction; description of policies, programs and planning methods relevant to all governmental levels; and review of research and case studies of mitigation efforts. This course is the same as POLS 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5303 Introduction to Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Examines the content and historical evolution of fire and emergency management including terminology, concepts, theories and methods employed. Previously offered as POLS 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5313 Political and Community Relations for Fire and Emergency Management Administration
Prerequisites: Graduate standing.
Description: Navigating the political and policy context of emergency services administration including understanding how to develop and pass legislation and municipal codes affecting emergency services. Other topics include communicating with politicians, other agency administrators, and the community and building coalitions with relevant actors, agencies and governments. This course is the same as POLS 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5323 Leadership and Management for Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Introduction to leadership and administrative processes required to deliver fire and emergency services; detailed examination of the social, political and economic issues that have an impact on service delivery and leadership and management approaches for emergency services. This course is the same as POLS 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5333 Incident Command
Description: The purpose of the course is to understand current issues in Incident Command both nationally and globally. This will be done by, 1. identifying and describing the major issues in incident command; and 2. relating research and theory to complex incidents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5413 Financial Administration for Fire and Emergency Management
Description: Applying budgeting and finance theory to fire, emergency management, and other emergency service agencies, including principles of revenues and expenditures, which may include grant application and administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5423 Labor Management for Fire and Emergency Management
Description: Current practices, problems and issues in labor administration for fire and emergency services agencies, including managing human resources, labor relations, affirmative action policies, and community representation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5613 Complex Emergencies
Prerequisites: Graduate standing.
Description: This course examines complex emergencies from an emergency management perspective. We will look at the collapse of governance, the causes of armed conflict, food insecurity, infectious disease, natural disasters, and so on, and examine specific cases in detail. Furthermore, we will look at how the international community responds to these crises, and which agencies are involved in relief efforts. We will apply the traditional four phases of disaster management to these situations. This course is the same as POLS 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5623 Emergency Management in the International Setting
Prerequisites: Graduate standing.
Description: Introduction to emergency management in the international setting. Provides background for students who may work with international assistance programs or who may become involved in the delivery of emergency management services abroad as part of an international assistance effect. This course is the same as POLS 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5633 Emergency Management and Public Policy in the United States
Prerequisites: Graduate standing.
Description: Examination of natural and man-made disasters in the U.S. along with the policies and programs intended to prevent, respond to, mitigate, and recover from such events. The evolution of the U.S. Emergency Management System, the emergency management profession, and future directions in emergency policy. This course is the same as POLS 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5643 Politics of Disaster
Prerequisites: Graduate standing.
Description: Situates disaster phases in the political context at the local, national and international levels. Examines research on specific events and their interactive effects between the political system and various phases of disaster. This course is the same as POLS 5393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5653 Hazard, Vulnerability, and Risk Analysis
Prerequisites: Graduate standing.
Description: Introduction to hazard, vulnerability and risk analysis (HVRA) techniques in fire and emergency management. Explains the role and uses of HVRA in decision-making, public policy and emergency management planning. This class is the same as POLS 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5810 Special Topics Seminar in Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Specialized topics in emergency management. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours. This course is the same as POLS 5300.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5820 Special Topics Seminar in Emergency Management
Description: Specialized topics in emergency management. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5830 Special Topics Seminar in Fire Administration
Description: Specialized topics in fire administration. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 5840 Directed Study in Fire and Emergency Management Administration
Description: Directed study for masters and doctoral students in specialized areas of fire and emergency management. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FEMP 5903 Practicum in Fire and Emergency Management Administration
Prerequisites: Consent of instructor.
Description: Supervised practicum in fire and emergency management administration. This class is the same as POLS 5903.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FEMP 6000 Dissertation
Prerequisites: Graduate standing and permission of instructor.
Description: Research for PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours. Same course as POLS 6000.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FEMP 6013 Qualitative Methods for Fire and Emergency Management
Prerequisites: Graduate standing and FEMP 5013 or consent of instructor.
Description: Qualitative methods for collecting and analyzing data regarding fire administration and emergency management. This course is the same as POLS 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6023 Quantitative Methods for Fire and Emergency Management II
Prerequisites: Graduate standing and FEMP 5013 and FEMP 5023 or consent of instructor.
Description: An advanced course that builds on the introductory level of statistics. Develop a systematic and critical understanding of alternative quantitative approaches and methodologies of fire and emergency management research. This course is the same as POLS 6123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6033 Topics in Advanced Qualitative Methods for FEMP
Description: Advanced specialized topics in qualitative coding, analysis, and data gathering methods for fire administration and emergency management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6043 Topics in Advanced Quantitative Methods for FEMP
Description: Advanced specialized topics in quantitative analysis and modeling methods for fire administration and emergency management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6103 Proseminar in Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Examines scope of the fire and emergency management field as an area of academic inquiry. This course is the same as POLS 6003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6303 Populations at Risk
Prerequisites: Graduate standing.
Description: Describes populations at risk for increased injury, death and property loss. Identifies policies, programs and resources for risk reduction. Applies research for purposes of planning and capacity building. This course is the same as POLS 6303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6313 Comparative and International Dimensions of Emergency Management
Prerequisites: Graduate standing.
Description: Comparative analysis of the organization, management and policies of fire and emergency response services in other countries. This course is the same as POLS 6203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6323 Organizational Behavior in Disasters
Prerequisites: Graduate standing.
Description: Theoretical overview of organizational behavior in a disaster context. How organizations respond, adapt, fail and succeed when disrupted by disaster. Role of formal and informal organizational structures in confronting disasters. This course is the same as POLS 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6413 Seminar Risk Theory and Management
Description: This course examines the risk literature from a perspective of individual and societal risk perception, regulation of risk, risk mitigation, legal aspects, legal aspects of risk and applies these literatures to natural and manmade hazards and disasters.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6810 Advanced Special Topics Seminar in Fire Administration
Prerequisites: Graduate standing.
Description: Specialized topics in fire administration. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours. This course is the same as POLS 6300.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6820 Advanced Special Topics Seminar in Emergency Management
Prerequisites: Graduate standing.
Description: Specialized topics in Emergency Management. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FEMP 6840 Directed Readings in Fire and Emergency Management
Prerequisites: Graduate standing or consent of instructor.
Description: Directed readings for doctoral students in specialized areas of fire and emergency management. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours. This course is the same as POLS 6040.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

Fire Protection & Safety Tech (FPST)

FPST 1103 Applied Techniques in Fire Suppression
Description: Provides requisite knowledge to achieve basic certifications in fire suppression and emergency operations for municipal and industrial fire protection.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 1203 Applied Techniques in Emergency Operations
Description: Provides requisite knowledge to achieve advanced certifications in fire suppression and emergency operations for municipal and industrial fire protection.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 1213 Fire Safety Hazards Recognition
Description: "The Fire Problem" Physical, chemical and electrical hazards and their relationship to loss of property and/or life. Safe storage, transportation and handling practices to eliminate or control the risk of fire in the home, business and industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 1373 Fire Suppression and Detection Systems
Description: The design, installation, maintenance and utilization of portable fire-extinguishing appliances and pre-engineered systems. Operational capabilities and utilization requirements of fire detection and signaling systems. Fire detection and suppression applied in practical laboratory problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2023 Industrial and Occupational Safety
Prerequisites: A grade of "C" or better in FPST 1213 and a grade of "C" or better in either MATH 1613 or MATH 1715 or MATH 1813 or MATH 2123 or MATH 2144 or an ALEKS score of 65.
Description: Occupational facilities, equipment and operations and their inherent hazards. Directed toward worker, machine and environmental control.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2050 Studies in Loss Control
Prerequisites: Consent of instructor and adviser.
Description: Problems in applied fire protection technology, occupational safety, industrial hygiene or hazardous materials management of particular interest to the loss control specialist. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 2153 Fire Protection Management
Description: Applied human relations, technical knowledge and skills for achieving optimum effectiveness from a fire protection organization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 2243 Design and Analysis of Sprinkler Systems
Prerequisites: Grade of "C" or better in (FPST 2483 and (ENGR 1322 or CET 2253)) or (MAE 3333 and (ENGR 1332 or ENGR 1322)).
Description: Detailed current standards for selection, design, installation, operation and maintenance of automatic fire suppression systems. Laboratory problems on applicable technological principles.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2343 Elements of Industrial Hygiene
Prerequisites: Grade of "C" or better in STAT 2013, CHEM 1515 or CHEM 1225 or CHEM 1414.
Description: Toxic or irritating substances, physical, biological, ergonomic and other occupational stress factors causing employee illness or discomfort. Environmental pollution sources and controls. Previously offered as FPST 2344.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2483 Fluid Mechanics for Fire Protection
Prerequisites: Prior (grade of "C" or better) or concurrent enrollment in FPST 1373. A grade of "C" or better in MATH 1613 or MATH 1715 or MATH 1813 or MATH 2123 or MATH 2144 or an ALEKS score of 65.
Description: Fluid flow through hoses, pipes, pumps and fire protection appliances. Water supply and distribution analysis using hydraulic calculations. Testing techniques to detect anomalies in design or performance capabilities.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2650 Technical Problems and Projects
Description: Special problems or projects assigned by advisers with the approval of the department head. A comprehensive written report or equivalent creative effort. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 3013 Safety Management (S)
Prerequisites: A grade of "D" or better in ENGL 1113 or ENGL 1123 or ENGL 1313. Must be enrolled in one of the following classes: Sophomore (SO), Junior (JR), or Senior (SR).
Description: Understanding and implementing techniques for a safer work environment. Recognition, evaluation and control of occupational health and safety hazards. Accident prevention, accident analysis, training techniques, worker's compensation insurance, guarding and personal protective equipment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage
General Education and other Course Attributes: Society & Human Behavior

FPST 3113 Advanced Special Hazard Suppression and Detection
Prerequisites: FPST 2483 or ENSC 3233.
Description: Design and analysis of special hazard suppression and detection systems using code requirements. Emphasis is also placed on the ability to select the appropriate system for a given hazard. May not be used for degree credit with FSEP 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3143 Life Safety Analysis
Prerequisites: A grade of “C” or better in FPST 1373 or CMT 3463 or ARCH 2263.
Description: Life safety concepts related to building codes including means of egress design criteria and components, exits, component details, occupancy types, occupancy load, emergency lighting, marking of means of egress, evacuation movement, human performance capabilities, human response to fire cues, occupant pre-evacuation, and toxicology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 3213 Human Factors in Accident Prevention
Prerequisites: Grade of "C" or better in (STAT 2013, STAT 4013, or STAT 4033) and (GENT 2323 or ENSC 2113).
Description: Human factors and workplace ergonomics as it relates to the prevention of accidents and workplace injuries. Fundamentals and techniques of task analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3373 Fire Dynamics
Prerequisites: A grade of "C" or better in (CHEM 1414 or CHEM 1215 or CHEM 1515), (MATH 2133 or MATH 2153), (FPST 2483 or MAE 3333).
Description: Fundamentals of thermochemistry, vent flows, heat transfer, ignition of liquids and solids, compartment fire phenomena, and introduction of computer fire modeling. Previously offered as FPST 4373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 3383 Building Electrical Systems
Prerequisites: A grade of C or better in FPST 1373 and a grade of C or better in PHYS 2014.
Description: Detail current standards for design, selection and installation of electrical distribution and utilization equipment. Emphasis on personnel safety and fire prevention using current codes and standards. May not be used for degree credit with FSEP 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3611 Human Behavior in Fire
Description: Concepts related to human behavior in terms of both the decision-making process of individuals and the impact of fire on occupants' ability to respond. May not be used for FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3621 Wildland Urban Interface Fire Impact on Infrastructure
Description: Concepts related to wildland urban interface fires in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3631 Fire Impact on Tall Building Infrastructure
Description: Concepts related to tall building fires in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3713 Hydraulic Design of Automatics Sprinkler Systems
Prerequisites: FPST 1373, FPST 2483, MATH 1513.
Description: Hydraulic calculation technique for the design and analysis of automatic sprinkler fire extinguishing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3723 Industrial Fire Pump Installations
Prerequisites: FPST 2483, MATH 1513.
Description: Applications, design and analysis of industrial fire pump installations. Graphical analysis of fire pump contributions to existing fire protection water supply systems emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3733 Sprinkler System Design for High Piled and Rack Storage
Prerequisites: FPST 2243, MATH 1513.
Description: Specific design techniques for sprinkler system protection of commodities stored in solid piles or racks over 12 feet in height.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4050 Special Problems in Loss Control
Prerequisites: Consent of department head.
Description: Special technical problems in fire protection and safety. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 4143 Industrial Ventilation and Smoke Control
Prerequisites: A grade of "C" or better in (FPST 2483 or MAE 3333) and FPST 3373 and (ENSC 2213 or MET 3433 or MET 3453).
Description: Principles of dilution and comfort ventilation; contaminant control; ventilation system testing and guidelines. Design and analysis of smoke management systems in buildings. Performance characteristics of smoke control systems. Previously offered as FPST 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4153 Issues in Local Government and Fire Services
Prerequisites: FPST 2153, MGMT 3013.
Description: Issues relating to the proper operation of a fire department and the fire department's role within the structure of local government.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4213 Advanced Building Design and Analysis
Prerequisites: Grade of "C" or better in FPST 2243 or CMT 3463 or ARCH 2263.
Description: Fire protection and life safety concepts and applications in the built environment related to building and fire codes including building height and area, structural fire protection, occupancy classifications, passive fire protection systems, means of egress, active fire protection systems, fire detection systems, and fire department access. May not be used for degree credit with FSEP 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4233 Advance Exposure Assessment
Prerequisites: Grade of "C" or better in FPST 2344.
Description: Evaluation of CBRNE exposure risks in industry and emergency response including statistical/computational techniques, regulatory obligations, and the use of instrumentation. Same course as FPST 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4333 System and Process Safety Analysis
Prerequisites: Grade of “C” or better in FPST 2023, STAT 2013, and MATH 2123 or MATH 2144.
Description: Fire and safety techniques to anticipate, recognize and control hazards. Fault Tree, HazOp, FMEA and other process safety techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 4383 Fire and Evacuation Modeling
Prerequisites: A grade of “C” or better in CHEM 1515 or CHEM 1225 or CHEM 1414 and FPST 2483 and MATH 2133 or MATH 2153 and STAT 2013 and GENT 3433 or MET 3433 or ENSC 2213 or GENT 4433 or MET 4433.
Description: Fundamentals of fire dynamics and occupant egress and their numerical approaches for computer models. Practical knowledge of how to use fire and evacuation modeling tools: CFAST, FDS, Pyrosim, and Pathfinder, and how to analyze modeling results. May not be used for degree credit with FSEP 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4403 Hazardous Materials Management
Prerequisites: Grade of "C" or better in FPST 2343, and (CHEM 1225 or CHEM 1414 or CHEM 1515).
Description: An integrated approach to hazardous materials management with emphasis on comprehensive environmental, health, safety, and fire protection program compliance relating to the transportation, storage, use and disposal of hazardous materials and wastes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4683 Risk Control Engineering
Prerequisites: A grade of "C" or better in FPST 2023, FPST 2343, FPST 2243, FPST 3373, FPST 3013, and ENGL 3323, or Department Permission, Junior Standing.
Description: Analysis of specific processes, equipment, facilities and work practices for detecting and controlling potential hazards, evaluating risk and developing risk control methodologies.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 4982 Fire Protection and Safety Projects I
Prerequisites: A grade of “C” or better in ENGL 1113 or ENGL 1123 or ENGL 1313. A grade of "C" or better or concurrent enrollment in ENGL 3323. A grade of "C" or better or concurrent enrollment in FPST 3013.
Description: Two-semester project with team format. Team members work with sponsors and faculty who serve as mentors in fields related to their topics. Students complete topic selection, progress reports, final reports, and poster presentations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4992 Fire Protection & Safety Projects II
Prerequisites: A grade of “C” or better in ENGL 3323 and FPST 4982.
Description: Two-semester project with team format. Second of two-semester sequence of senior project courses.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4994 Fire Protection and Safety Projects
Prerequisites: A grade of "C" or better in ENGL 1113 or ENGL 1123 or ENGL 1313. A grade of "C" or better or concurrent enrollment in ENGL 3323. A grade of "C" or better or concurrent enrollment in FPST 3013 and FPST 3373.
Description: Students work in small teams on a semester-long design project sponsored by a company, agency, or individual. Team members work with mentors from sponsors and with faculty members in fields related to their topics. Presentations on safety, patent law, product liability, report writing, oral presentations, scheduling and ideation. Oral presentations, progress reports, and a professional log book documenting personal activity and contributions. Previously offered as FPST 4993.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

Fire Safety & Explosion Protection (FSEP)

FSEP 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Methods used in research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours. Same course as MERO 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FSEP 5013 Research Design & Methodology
Prerequisites: Consent of instructor.
Description: Overview of research design methods and skills necessary for conducting research projects, including: conceptualization and operationalization, literature review, deductive and inductive theorizing, hypothesis testing, quantitative and qualitative data collection and analysis, maintaining research records, experiment design, data validation, result presentation, and research ethics. Same course as FEMP 5013 and MERO 5013. Previously offered as GENT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5023 Project Management
Prerequisites: Consent of instructor.
Description: Methods and skills needed to successfully improve your employability and advancement in today's dynamic workforce. Understanding of the responsibilities of project leader and become better prepared to apply these knowledge/skills to the project environment. Previously offered as GENT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5033 Risk Analysis
Prerequisites: Consent of instructor.
Description: Identification of various risks and analytical treatment of those risks in various work settings, such as energy, mechanical and construction. Previously offered as GENT 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5043 Principles and Impacts of Explosions
Description: Concepts related to understanding explosion phenomena, analyze and calculate explosion pressures, conceptual design of ventilation, suppression or isolation systems. Approaches of explosion protection and evaluation of structural damage and injury potential of blast waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5060 Emerging Topics in Engineering Technology
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics normally not included in existing MSET program. Repeat credit may be earned with different course subtitles assigned. Same course as MERO 5060. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5113 Introduction to Fire Dynamics
Description: Fundamentals principles of combustion and fire. The thermochemistry and physical phenomena of fire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5123 Advanced Special Hazard Suppression and Detection
Description: Design and analysis of special hazard suppression and detection systems using code requirements. Emphasis is also placed on the ability to select the appropriate system for a given hazard. May not be used with FPST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5133 Principles of Industrial and Process Safety
Description: Fundamentals of industrial safety in general, chemical release, dispersion, toxicity, fire, and explosion. Safety design for industrial safety and mitigating consequences of catastrophic fire and explosion. Same course as MERO 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5143 Performance Based Design for Life Safety in Fire and Other Hazards
Description: Identification and application of performance based design practices with an emphasis on determining the response and requirements of occupants. Building construction standards and codes to assure maximum life and property safety from fires, explosions and natural disasters. Egress design specifications, human factors and fire protection requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5153 Advanced Exposure Assessment
Description: Identification of critical infrastructure and the societal risk caused by its vulnerability. Methods of analyzing the hazards and threats facing critical infrastructure components and the methods of minimizing those risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5163 Building Electrical Systems
Description: Detail current standards for design, selection and installation of electrical distribution and utilization equipment. Emphasis on personnel safety and fire prevention using current codes and standards. May not be used with FPST 3383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5173 Explosion and Fire Impact on Infrastructure
Description: Concepts related to explosions, Wildland Urban Interface (WUI) fires, and tall buildings in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FPST 3611, FPST 3621, or FPST 3631.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5213 Advanced Building Design and Analysis
Description: Fire protection and life safety concepts and applications in the built environment related to building and fire codes including building height and area, structural fire protection, occupancy classifications, passive fire protection systems, means of egress, active fire protection systems, fire detection systems, and fire department access. May not be used for degree credit with FSEP 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5383 Fire and Evacuation Modeling
Description: Fundamentals of fire dynamics and occupant egress and their numerical approaches for computer models. Practical knowledge of how to use fire and evacuation modeling tools: CFAST, FDS, Pyrosim, and Pathfinder, and how to analyze modeling results. May not be used for degree credit with FPST 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5990 Directed Studies
Prerequisites: Consent of instructor.
Description: Individual report topics in fire safety and explosion protection involving processes, equipment, experiments, literature search, theory, computer use or combinations of these. Same course as MERO 5070. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

Food Science (FDSC)

FDSC 1133 Fundamentals of Food Science
Description: Food industry from producer to consumer and the current U.S. and world food situations. Previously offered as ANSI 1133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 2103 Regional Diversity in Food Production, Selection and Consumption (D)
Description: Examines the diversity of people associated with food production, selection, and consumption in the United States. Evaluate the cultural diversity in food production workplace and economic and social factors that influence this diversity. Examine various food selection and consumption criteria of varying contemporary cultures based on economic, social, and religious considerations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences
General Education and other Course Attributes: Diversity

FDSC 2143 Introduction to Food Industry Operations
Description: Introduction to Food Industry basics: business planning, food safety regulations, labeling, UPCs, packaging, materials, patents, trademarks, processing, co-packing, and introduction to various food processing techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 2231 The Science of BBQ
Description: Survey, demonstration and participation in preparation techniques of barbecue and the science of selection and preparation of meat for barbecue. Comparison of regional and international methods.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

FDSC 2233 The Meat We Eat
Description: Overview of all animal, poultry, and fish protein sources used for human consumption, but focusing on red meat. Examination of each phase of production, inspection, safety, grading, processing, preparation, and current issues of the industries. Development of an understanding of the importance of meat in the diet and part of global agriculture. Same course as ANSI 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 2253 Meat Animal and Carcass Evaluation
Description: Evaluation of carcasses and wholesale cuts of beef, pork, and lamb. Factors influencing grades, yields, and values in cattle, swine, and sheep. Same course as ANSI 2253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 3033 Meat Technology
Description: The basic characteristics of meat and meat products as they relate to quality. Product identification, economy, nutritive value, preservation, and utilization. No credit for students with credit in ANSI 2253 or ANSI 3333. Previously offered as ANSI 3033.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 3113 Quality Control
Prerequisites: Introductory microbiology and organic chemistry.
Description: Application of the principles of quality control in food processing operations to maintain the desired level of quality. Previously offered as ANSI 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 3123 HACCP in the Food Industry
Description: Fundamentals of HACCP (Hazard Analysis and Critical Control Points), function of a HACCP system and implementation of HACCP in the food industry. Offered for fixed credit, 2 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 3133 Plant Sanitation for Food Processing Operations
Description: Sanitation and safety of food produced in food establishments, including government recommendations and regulations and illustration of voluntary and mandatory guidelines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 3154 Food Microbiology
Description: Relationship of microorganisms to food manufacture and preservation, to food spoilage and microbial food poisoning and to various aspects of primary food production. Same course as MICR 3154. Previously offered as ANSI 3154.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 3232 Advanced Meat Evaluation
Description: Advanced evaluation of carcasses and wholesale cuts of beef, pork and lamb. Same course as ANSI 3232. Previously offered as FDSC 3182.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

FDSC 3310 Advanced Competitive Evaluation
Prerequisites: Honors Program participation, junior standing.
Description: Advanced instruction in animal and/or product evaluation. For students competing on collegiate judging teams. Same course as ANSI 3310. Previously offered as FDSC 3210. Offered for fixed credit, 2 credit hours, maximum of 6 credit hours.
Credit hours: 2
Contact hours: Contact: 6 Other: 6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

FDSC 3333 Meat Science
Description: Anatomical and basic chemical and physical characteristics of meat animals studied. The application of scientific principles to the processing and economical utilization of meat animals, as well as in the manufacture of meat products emphasized in the laboratory. Same course as ANSI 3333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 3373 Food Chemistry I
Description: Basic composition, structure, and properties of foods and the chemical changes or interactions that occur during processing and handling. Previously offered as ANSI 3373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 3603 Processing Dairy Foods
Prerequisites: Organic chemistry.
Description: Theory and practice in formulation and processing: butter and margarine, cottage cheese, blue and processed cheeses, evaporated and sweetened condensed milk, ice cream, ice milk, and other frozen desserts. Previously offered as ANSI 3603.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 4053 Foodborne Toxins and Allergens
Description: Food toxicology and food toxicological issues in the industry. Specific types of foodborne toxins and allergens addressed; including naturally occurring toxins, toxins of microbial origin, food additives including nutrients, heavy metals, environmental contaminants and processing-derived toxins. May not be used for degree credit with FDSC 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4113 Internal Audit and Advanced HACCP
Prerequisites: FDSC 3123.
Description: Verification and validation of the principles of Food Processing Quality Systems to confirm that quality and food safety systems have been implemented adequately and are effective. Topics include: food allergens, internal auditing and implement food safety and food quality programs to ensure consumer protection and prevent economic loss to the industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4123 Principles of Food Engineering
Prerequisites: MATH 1513.
Description: Application of the engineering approach to solving heat and mass transfer problems in food processing. An introduction to the basic concepts of the conservation laws, fluid flow, heat transfer, refrigeration, freezing, psychrometrics, and energy conservation. Same course as MCAG 4123. May not be used for Degree Credit with FDSC 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4143 Food Safety Modernization Act
Description: Good manufacturing practices, how to develop preventive controls plan and how to respond to FDA inquiries. FDA standardized curricula developed for FSMA: Animal Food and Human Food rules. May not be used for degree credit with FDSC 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4153 Advanced Food Microbiology
Prerequisites: FDSC 3154 or MICR 3154.
Description: Detection of foodborne pathogens, how pathogens cause disease, conduct investigations into foodborne illnesses, and antimicrobials to control foodborne pathogens. May not be used for Degree Credit with FDSC 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture and fiber characteristics. Same course as ANSI 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4233 Food Safety Audit Schemes
Description: Develop food safety system to satisfy SQF and BRC requirements. Major topics such as how to implement food safety and quality systems and how to prepare for audit. May not be used for degree credit with FDSC 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4243 Researching Consumer Food Preferences
Prerequisites: AGEC 1113 and ANSI 1124 or FDSC 1133, and STAT 2013 or STAT 2023 or STAT 4013.
Description: Design, implementation, and interpretation of research in consumer food preferences. Includes design of consumer surveys, conducting consumer interviews, preparing food and questionnaires for taste-test experiments, targeting and recruiting scientifically valid samples, the statistical analysis of data, and communication of results. Previously offered as AGEC 4243. May not be used for Degree Credit with FDSC 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 4253 Pre-Harvest Food Safety
Prerequisites: FDSC 3154 or MICR 3154.
Description: Microbial food safety at pre-harvest level. Types, sources, and concentrations of disease-causing pathogens in the food-producing animal environments and fresh produce/seafood environments; methods to control or reduce foodborne pathogens; present and future pre-harvest food safety directions. May not be used for Degree Credit with FDSC 5253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 4333 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. Same course as ANSI 4333. May not be used for Degree Credit with FDSC 5833.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 4373 Food Chemistry II
Prerequisites: FDSC 3373.
Description: Chemical/biochemical mechanisms that affect the structure and properties of foods during processing and handling. No credit for FDSC 5373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 4763 Analysis of Food Products
Description: Application of quantitative chemical and physical methods of analysis to the examination of foods. Previously offered as ANSI 3763. May not be used for Degree Credit with FDSC 5763.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 4900 Special Problems
Prerequisites: Consent of instructor.
Description: A detailed study of an assigned problem by a student wishing additional information on a special topic. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

FDSC 4910 Food Industry Internship
Prerequisites: Consent of instructor.
Description: Full-time internship at an approved production, processing or agribusiness unit or other agency serving the food industry. Maximum credit requires a six month internship in addition to a report and final examination. Graded on a pass-fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

FDSC 5000 Master's Research and Thesis
Prerequisites: Consent of major adviser.
Description: Research for Master of Science degree in Food Science planned, conducted and reported under guidance of major adviser. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

FDSC 5053 Advanced Foodborne Toxins and Allergens
Description: Food toxicology and food toxicological issues in the industry. Specific types of foodborne toxins and allergens addressed; including naturally occurring toxins, toxins of microbial origin, food additives including nutrients, heavy metals, environmental contaminants and processing-derived toxins. May not be used for degree credit with FDSC 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5102 Ethics and Professionalism in Animal and Food Science
Description: Discussion of regulations, laws, and resources; insights on complex ethical issues, including but not limited to research misconduct, how to address, report and find resources during cases of misconduct, conflicts of interest, and authorship; communication of research accurately and objectively to different audiences. Same course as ANSI 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5113 Internal Audit and Advanced HACCP
Description: Verification and validation of the principles of Food Processing Quality Systems to confirm that quality and food safety systems have been implemented adequately and are effective. Topics include: food allergens, internal auditing and implement food safety and food quality programs to ensure consumer protection and prevent economic loss to the industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5120 Special Topics in Food Science
Prerequisites: Graduate standing and consent of instructor.
Description: Advanced topics and new developments in food science. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

FDSC 5123 Principles of Food Engineering
Prerequisites: MATH 1513.
Description: Application of the engineering approach to solving heat and mass transfer problems in food processing. An introduction to the basic concepts of the conservation laws, fluid flow, heat transfer, refrigeration, freezing, psychrometrics, and energy conservation. May not be used for degree credit with FDSC 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5143 Food Safety Modernization Act
Description: Good manufacturing practices, how to develop preventive controls plan and how to respond to FDA inquiries. FDA standardized curricula developed for FSMA: Animal Food and Human Food rules. May not be used for degree credit with FDSC 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5153 Advanced Food Microbiology
Prerequisites: FDSC 3154 or MICR 3154.
Description: Detection of foodborne pathogens, how pathogens cause disease, conduct investigations into foodborne illnesses, and antimicrobials to control foodborne pathogens. May not be used for degree credit with FDSC 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture, and fiber characteristics. Same course as ANSI 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5233 Food Safety Audit Schemes
Description: Develop food safety to satisfy SQF and BRC requirements. Major topics such as how to implement food safety and quality systems and how to prepare for audit. May not be used for degree credit with FDSC 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5243 Researching Consumer Food Preferences
Prerequisites: AGEC 1113 and ANSI 1124 or FDSC 1133, and STAT 2013 or STAT 2023 or STAT 4013.
Description: Design, implementation, and interpretation of research in consumer food preferences. Includes design of consumer surveys, conducting consumer interviews, preparing food and questionnaires for taste-test experiments, targeting and recruiting scientifically valid samples, the statistical analysis of data, and communication of results. May not be used for degree credit with FDSC 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5253 Pre-Harvest Food Safety
Prerequisites: FDSC 3154 or MICR 3154.
Description: Microbial food safety at pre-harvest level. Types, sources, and concentrations of disease-causing pathogens in the food-producing animal environments and fresh produce/seafood environments; methods to control or reduce foodborne pathogens; present and future pre-harvest food safety directions. May not be used for degree credit with FDSC 4253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 5300 Food Science Seminar
Prerequisites: Graduate standing.
Description: Critical reviews or studies of the scientific research literature related to the field of food science. Oral reports or group discussions. Offered for fixed credit, 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5333 Carcass Value Estimation Systems
Prerequisites: Graduate classification.
Description: Analysis of scientific literature regarding carcass composition, quality and palatability. Overview of technology used to evaluate carcass quality factors. Same course as ANSI 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5373 Advanced Food Chemistry
Prerequisites: FDSC 3373.
Description: Chemical/biochemical mechanisms that affect the structure and properties of foods during processing and handling.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 5393 Issues in Food Science
Prerequisites: Graduate classification.
Description: Critical analysis of issues and challenges in the U.S. food industry. Advanced forms of communication to effectively convey information to stakeholders and advocate for a position.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5553 Interpreting Animal and Food Science Research
Prerequisites: STAT 5013 or concurrent enrollment.
Description: Critical evaluation and knowledgeable communication on the design, analyses, and reporting of animal science and food science research. Same course as ANSI 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

FDSC 5763 Analysis of Food Products
Prerequisites: Organic chemistry.
Description: Application of quantitative chemical and physical methods of analysis to the examination of foods. May not be used for degree credit with FDSC 4763.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 5833 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. May not be used for degree credit with FDSC 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

FDSC 6000 Doctoral Research and Dissertation
Prerequisites: MS degree or consent of major adviser.
Description: Independent research for PhD degree in Food Science planned, conducted and reported in consultation of a major professor. Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

Forensic Sciences (FRNS)

FRNS 5000 Thesis Research & Seminar
Prerequisites: Consent of major adviser.
Description: Research, thesis, and seminar requirement culminating with a master's thesis and degree. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 5013 Survey of Forensic Sciences
Prerequisites: Consent of instructor.
Description: Predominantly online class providing overview of various forensic sciences and how they relate to presentation of evidence and to civil and criminal procedures involved in solving problems of law. Law and ethics, forensic pathology, forensic dentistry and anthropology, forensic toxicology and molecular biology (DNA), forensic nursing and death scene investigation, forensic psychology, criminalistics, questioned documents, forensic engineering and technology, forensic accounting, and management techniques in forensic sciences. A review of current guidelines for knowledge, procedures, quality assurance and control, and certification/accreditation from national standards boards and scientific and technical working groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5063 Ethical Research and Scientific Writing
Prerequisites: Permission from research advisor.
Description: Develops knowledge and skills for ethical scientific research, writing and presentation. Covers responsible conduct, organization and design of research around a scientific question, and writing problems specific to science and the individual. Advisor guidance on some assignments required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5073 Quality Assurance in Forensic Science
Prerequisites: Admission to program.
Description: Preparation for the forensic scientist to develop and implement quality assurance and quality control procedures to ensure the excellence of a laboratory. Preparation of laboratory procedures and policies, use of appropriate standards and controls, and validation methods for establishing an effective quality assurance program in the laboratory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5083 Ethics in Forensic Leadership
Description: Focuses on leadership development for managers of forensic organizations, including examination of leadership and ethics theories, application to theories to problems in forensic settings, tasks and relational skills for developing effective teams and groups within an ethical framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5090 Internship in Forensic Sciences
Prerequisites: Permission of instructor.
Description: initial course in chosen specialty, permission of advisor and program director, and letter of agreement or contract with designated facility or laboratory. Provides practical training and experience within a work or laboratory setting under the guidance of a designated supervisor. This experience should complement graduate studies in the forensic sciences and support related career goals. Note: requires four hours per week at internship site for each credit hour of enrollment; eight hours per credit for summer session. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 5103 The Chemistry of Pyrotechnics
Prerequisites: Permission of instructor and faculty advisor.
Description: Provide students with a fundamental knowledge of the chemistry of pyrotechnics/low explosives intended to function as propellants, or generate pyrotechnic effects such as light, heat, sound, smoke and color. Emphasizes chemical and thermodynamic principles required to formulate these compositions and which determine their performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5113 Essential Science for Explosive Operators
Prerequisites: FRNS 5103.
Description: This course will cover the fundamental chemistry and physics needed for Explosives Operators (Bomb Techs, EOD, etc.) to better understand the scientific underpinnings of their field. Relevant principles will be pulled from college level general chemistry, organic chemistry, and physics curriculum, It will be assumed that the student has little to no background knowledge of chemistry or physics but has a solid understanding of explosives terminology and function.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5123 Fire Dynamics in Forensic Investigations
Prerequisites: Permission from Instructor and Faculty Advisor.
Description: Teaches the fundamentals of how chemistry, fire science, fluid mechanics and heat transfer interact to influence fire behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5133 Ordnance Identification and Recognition
Prerequisites: Permission from Instructor and Faculty Advisor.
Description: Provides the fundamentals of a practical deductive process used to identify unknown military ordnance and addresses the safety precautions that should be applied in order to minimize associated hazards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5143 Methods in Fire and Explosion Investigation NFPA 921/1033
Prerequisites: Permission from Instructor and Faculty Advisor.
Description: Surveys investigative methods in fire and explosion including legal considerations, fire science, building construction, origin determination, interviewing, documenting, evidence collection, deaths and injuries and other emerging trends in scientific testing and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5153 Explosives Research, Testing and Evaluation Methods
Prerequisites: Permission from Instructor and Faculty Advisor.
Description: Explores explosives characterization methods and explosives range testing methods to include how to develop and document a test plan, test methods and instrumentation while documenting and writing results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5183 Computer Fire Modeling
Prerequisites: Permission of Instructor and faculty advisor.
Description: Teaches the fundamentals of computational fluid dynamics (CFD) computer fire modeling, using Fire Dynamics Simulator (FDS). Covers topics such as basic conservation equations; Cartesian coordinate systems; use of spreadsheets to facilitate the creation of fire models; how to install and run FDS; how to write the code required to create an FDS model; techniques for modeling fire scenes and verification/validation of fire modeling use.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5213 Molecular Biology for the Forensic Scientist
Prerequisites: Admission to the program.
Description: Develops a solid foundation of knowledge in molecular biology for understanding the concepts of genetic marker analysis, especially DNA typing. Course previously offered as FRNS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5243 Population Genetics for the Forensic Scientist
Prerequisites: FRNS 5513.
Description: Population genetics relevant to DNA analysis technologies to identify perpetrators of crime. Includes foundation of statistical knowledge in forensic DNA analysis and family relatedness testing, history and application of statistical and population genetic theory to assigning weight to matches in DNA profiles for the court. Course previously offered as FRNS 5242.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5253 Forensic Casework Training
Prerequisites: Acceptance into TPD Lab Experience Program, FRNS 5073.
Description: This course aims to immerse students in a forensic science discipline aligned with their academic concentration. Students will partner with the Tulsa Police Department Forensic Laboratory to complete training in the forensic biology or firearms disciplines. Course instruction will include lectures, assigned readings, laboratory practicals, and a mock trial. The successful student will obtain competency recognition from an accredited forensic laboratory, permitting enrollment in FRNS 5263.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Forensic Sciences

FRNS 5263 Forensic Casework Experience
Prerequisites: FRNS 5253.
Description: This course will allow students to gain independent casework experience at the Tulsa Police Department Forensic Laboratory (TPDFL) by performing biology testing or firearms database entry on actual case evidence. Students will work with a TPDFL technical manager and alongside seasoned forensic scientists to gain applicable and experiential knowledge in an accredited forensic laboratory.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Forensic Sciences

FRNS 5273 Forensic Threat Assessment and Management
Description: Forensic Threat Assessment and Management provides the introductory course for individuals seeking to perform threat assessments. Topics include theory of threats and foundations of threat management plans. There will be a broad overview of different settings and a case study of the Bath Michigan massacre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5282 Methods in Forensic Sciences
Prerequisites: Permission of instructor.
Description: Advanced-level laboratory course in which students apply knowledge from earlier course work in a hands-on setting and employ fundamental techniques and methods related to forensic biology, forensic microbiology, forensic pathology, or forensic toxicology. Course previously offered as FRNS 5281.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Forensic Sciences

FRNS 5293 Violence in Forensic Settings
Description: Violence in Forensic Settings provides an in-depth understanding of why and how individuals harm others. Topics include homicide, assault, sexual violence, among others. Individuals will understand the role of substances and mental health in violence, Finally, students will have the opportunity to learn and understand violence risk assessments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5303 Forensic Investigation of Impaired Vehicle Operation
Description: Forensic Investigation of Impaired Vehicle Operation is designed to introduce a student to the fundamental aspects of investigating incidents involving impaired vehicle operations. Students will learn or review concepts in human performance as they relate to vehicle operation. Some topics will include case law of traffic stops, pharmacology, human performance assessment, mental health, and standardized field sobriety tests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5323 Forensic Microbiology
Prerequisites: Permission of instructor and basic microbiology recommended.
Description: Basic microbiologic techniques applied to actual forensic situations. Includes rules of evidence applied to investigations with suspected use of microorganisms as bioterrorism agents. Stresses recognition of biological agents, site sampling, and laboratory identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5333 Forensic Chemistry
Description: Forensic Chemistry is designed to introduce a student to the fundamental aspects of chemical investigations in forensic science. The goal of this course is to provide students with a solid foundation in forensic chemistry, specifically as it relates to controlled substances, explosives, arson, and trace evidence analysis. Students will learn or review concepts in chemical structure, properties and analysis that are related to forensic investigations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5343 Forensic Investigation of Clandestine Laboratories
Description: Forensic Investigation of Clandestine Laboratories is a graduate level course designed to Introduce a student to the fundamental aspects of investigating hidden or clandestine laboratories (clan labs), Students will learn or review concepts in drug, biological threat agent, and explosives production. Some topics will include biology and chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5353 Forensic Investigations Involving Radiological/Nuclear Materials
Description: Forensic investigations of Rad/Nuc Materials Is designed to Introduce a student to the fundamental aspects of Investigating incidents involving radiological or nuclear materials. Students will learn or review concepts in radioactivity and fusion or fission of nuclear particles that are related to forensic investigations, Some topics will include radiation omission typos, detection, effects of radiation in skin and mechanisms of energy formation in nuclear reactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5363 Forensic Investigations of Chemical/Biological Incidents
Description: Forensic Investigations of Chem/Bio Incidents is a graduate level course designed to introduce a student to the fundamental aspects of investigating incidents involving chemical or biological weapons. Specific course goals are outlined below, but the main course goal Is for the student to have a thorough understanding of chem/bio incident investigation after successful completion of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5413 Forensic Pathology and Medicine
Prerequisites: Consent of instructor.
Description: Medico-legal investigation of death and injury due to natural causes, accidents and violence.Transportation injuries, homicides, suicides, blunt- or sharp-force injuries, gunshot wounds, asphyxia, drowning, and thermal and electrical injuries. Pediatric deaths; rape investigation; injury analysis; interpretive toxicology; identification by dental means; anthropologic studies for determining age, sex and race; and conducting of independent medical examinations. Demonstrations and data analysis from actual cases. Review of current guidelines for knowledge, procedures, quality control/assurance, and certification/ accreditation from national standards boards and scientific/technical working groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5423 Blast Injuries and Effects
Prerequisites: Permission of instructor and facultv advisor.
Description: Takes a comprehensive view into the nuances of explosive effects on the human body. Specifically scrutinized will be primary, secondary, tertiary, and quaternary blasts effects on lungs, the cardiovascular system, neurological functions, integumentary systems, long bone extremities, otic, ophthalmic, and psychological. Provides students the opportunity to research a focus area of interest related to casualties of explosive events.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5443 Interdisciplinary Post Blast Investigation
Description: As a result of the discussions, readings, lectures, case studies and research conducted during the class, the student is expected to develop an improved understanding of the forensic fields involved in post-blast investigations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5453 Fingerprints and Their Role in Forensic Science
Description: Fingerprint (or Latent Print) sections play an essential role in forensic labs worldwide, as they can link an individual person to a specific item of evidence. As a comparison science, fingerprint examination relies heavily on the competency of the examiner as well as proper understanding of foundational concepts surrounding the discipline. This introductory course will hep students to better understanding those foundation concepts that the science of fingerprints is built upon.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5463 Blood Stain and Pattern Analysis
Description: This course is intended to act as an introduction to bloodstain pattern analysis. Upon completion of this course, students should have a basic awareness of BPA, including the types of conclusions bloodstain pattern analysts can make, what types of cases can benefit from bloodstain pattern analysis, and be able to separate bloodstain pattern fact from fiction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5473 Forensic Crime Scene Processing
Description: Evidence documentation and recognition of evldentiary value are vital in processing crime scenes. This course will discuss the various techniques and the sciences involved in processing and documenting crime scenes as well as the value of various types of evidence for criminal prosecution. Upon completion or this course, the student will have a better understanding of crime scene documentation through photography, measurements, and new laser scanning technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5513 Forensic Bioscience
Prerequisites: FRNS 5013; college-level chemistry and biology.
Description: Concepts of toxicology and identity testing, the two areas representing the most extensive application of the fields of chemistry, biology and genetics to forensic science. History, theory, application and quality assurance concepts to the material. Working knowledge of how toxic compounds affect human physiology and how they are identified in the laboratory. Basic concepts in genetics and their application to tracing origin of biological samples in civil or criminal investigations as well as resolving disputed family relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5523 Forensic Toxicology
Description: Introduction of fundamental aspects of forensic toxicology and emphasis on major subfields of postmortem forensic toxicology, human performance toxicology and forensic drug testing. Examination of methodologies and analyses associated with these three major subfields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5533 Drug Toxicity
Description: Introduces fundamental aspects of abused drugs from a toxicological perspective and examines major disciplines of toxicology. Also covers basic principles of toxicology applied to different classes of commonly abused drugs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5543 Advanced Forensic Toxicology
Prerequisites: FRNS 5523.
Description: Familiarizes the student with advanced aspects of forensic toxicology in view of current forensic toxicological trends. Covers risk assessment principles, factors in pharmacokinetics, weapons of mass destruction, and integrating concepts with current applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5553 Introduction to Forensic Crime Analysis
Description: Introductory course to the profession of Crime Analysis. Prepares individuals to be familiar with the topics covered in the International Association of Crime Analysts-Foundation (LEAF) exam.Topics covered: types of crime analysis and patterns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5563 Theories in Forensic Crime Analysis
Prerequisites: FRNS 5563.
Description: This course provides a foundational overview of the prominent theories that crime analysts should be familiar with. The course starts with an Introduction to the concept and history of theory development. The course then progresses through the major crime theories, including those on the International Association of Crime Analysts-Foundation exam.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5573 Policing Strategies in Forensic Crime Analysis
Prerequisites: FRNS 5553.
Description: This course provides the necessary information to respond to the results of crime analysis. The course includes a historical overview of policing and law enforcement strategies. Instruction will cover major policing concepts such as predictive policing and CompStat. Students receive information in strategies to reduce certain events, such as traffic fatalities or gun violence. Students are taught the concepts of analysis response reports, program evaluation, and ethics in modern policing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5583 Data and Statistics in Forensic Crime Analysis
Description: This course provides the foundational knowledge required in Forensic Crime Analysis. Information provided will allow students to handle and analyze crime data. The Information will help to prepare the students for the International Crime Analysts-Foundation exam. The course focuses on the important principles of statistics and concepts relevant to crime analysis. Video Lectures, supplemented by homework, are the primary learning tools. Cannot be used for degree credit with FRNS 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5613 Criminalistics and Evidence Analysis
Prerequisites: Admission to program.
Description: Introduction to techniques and tools used for crime scene investigations and analysis of evidence. Introduction to the forensic laboratory, its operation and function, forensically applied scientific concepts, analytical instrumentation and microscopy, and documentation, collection and preservation of physical evidence. Review of FBI-sanctioned working group guidelines for evidence gathering, evidence handling, quality control and accreditation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5622 Crime Scene Laboratory and Moot Court Experience
Prerequisites: Graduate standing.
Description: Application of strategies/techniques for effective crime scene investigation in laboratory or mock crime scene setting. Covers the duties of the first officer at the crime scene, the crime scene investigator/evidence collector, and analysis of evidence in the forensic laboratory. Builds on concepts from prerequisite courses for hands-on exercises.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Forensic Sciences

FRNS 5643 Law and Expert Evidence: Firearms and Toolmarks
Description: This course will give students a working knowledge of federal firearm laws, including tips and techniques for prosecution, courtroom presentation, and expert testimony. In addition, the course touch on state firearm laws and the best resources to locate and familiarize yourself with regulations. We will discuss the requirements for the admission of toolmark evidence in court and the current state of the law in this scientific field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5653 The Law and Expert Evidence
Prerequisites: Admission to program.
Description: Review of ways that the law, particularly the law of evidence, affects the work of the forensic scientist. The beginning of the case, most often the crime scene, through the legal process, through trial and including appeals and motions for a new trial. Legal doctrines of interest to the forensic scientist, such as chain of custody, work product privileges, laying of the proper foundation, exhibits, and the standards necessary to obtain a new trial.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5663 Destructive Devices/Explosives: Law and Regulations
Prerequisites: Permission of instructor and faculty advisor.
Description: Involves a survey of the legal principles relevant to explosives and arson, including caselaw, statutes, and regulations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5673 Introduction to Forensic Intelligence Analysis
Prerequisites: Permission of instructor and faculty advisor.
Description: This course provides a comprehensive overview of forensic intelligence analysis, emphasizing its application within law enforcement and criminal investigations. The course will examine how forensic science integrates with intelligence work to identity criminal patterns, analyze networks, and support the resolution of cases ranging from organized crime to terrorism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5683 Digital and Multimedia Evidence for Investigators
Prerequisites: Permission of instructor and faculty advisor.
Description: Digital and Multimedia evidence (DME) is available and useful in almost every single investigation. This course is designed to provide an overview of the DME forensic discipline.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5693 Battlefield Forensics and the Global War on Terror
Description: This course will take a comprehensive look at the evolution of battlefield forensics during the Global War on Terror (GWOT). It focuses on the tactics, techniques and procedures (TTP) of battlefield forensics during the early stages of the GWOT, and the continued development of the use of forensics for the identification and targeting of terrorist on the battlefield. Topics include: the stages of forensic development, establishment of the in-theater laboratories, the evolution of collection techniques, the eventual turning over of the forensic responsibilities to the host nation, and the road ahead.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5703 Psychology of Forensic Intelligence Analysis
Description: This course delves into the psychological elements of forensic intelligence analysis, focusing on how psychological theories and methods inform the understanding of criminal behavior and intelligence work. Through the study of psychological profiling, risk assessment, and case studies in terrorism and organized crime, students will develop a deeper understanding of the intersection between psychology and forensic intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5713 Forensic Psychology
Prerequisites: Consent of faculty.
Description: Introduction to the relationship between the disciplines of law and psychology via examination and contrast of the issues at the interface of both disciplines. Various legal terminology that calls for psychological input; legal and ethical responsibilities of forensic psychologists, criminal behavior, punishment and deterrence, violence and mental illness, competency to stand trial, the insanity defense, eyewitness testimony, the death penalty, and polygraph testing. Exploration of the role of legal and mental health systems in social control, impact of psychological knowledge on functioning of the legal system. Examination of psychological topics and paradigms relevant to study of particular legal subsystems or topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5723 Advanced Forensic Psychology
Prerequisites: FRNS 5713.
Description: Expands on topics covered in FRNS 5713. Covers function of the mental health professional in criminal cases, nature and impact of mental illness on individual life and freedom, reasons behind crimes, gender differences in the criminal justice system, and laws pertinent for mental health professionals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5733 Forensic Victimology
Prerequisites: FRNS 5013 or permission of instructor.
Description: Introduction to victimology, emphasizing victims' issues within the justice system and in medico-legal investigations. Explores impact of crime on victim; correlation between types of victims; crime and offender categories; risk factors; victim-offender and victim-society relationships; the role of victimologist as a researcher and consultant; influences of media, law enforcement, advocacy groups, businesses, and social movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5743 Forensic Science Seminar
Prerequisites: Graduate standing.
Description: The objectives of this course are to broaden students' perspectives and understanding of a wide range of forensic science disciplines and professions. This course provides an opportunity for students to discover opportunities for continued learning and development. Students will participate In 16 Independently selected continuing education webinars/seminars/podcasts/relevant trainings and complete written assignments.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 5753 Criminal Behavioral Analysis
Prerequisites: Current graduate student status or approval of instructor.
Description: Combines various academic disciplines toward a behavioral examination of the violent criminal offender. By examining the crime scene from a behavioral perspective, the psychodynamics of the offender, the sociological environmental forces, and the social psychological dimensions of the victim-offender interactions are combined for a more holistic understanding of the violent offender.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5763 A Generalist Foundation in Forensic Clinical Examination
Prerequisites: Departmental approval.
Description: The three pillars of forensic examination theory will be covered to include content on clinical examination science, forensic science, and the legal system. The program will prepare the clinician to identify forensic patients; provide trauma-informed; evidence-based clinical care to all patients; assessment of injury and documentation; evidence collection and preservation; legal and ethical issues; preparing for and presenting testimony.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5773 Violence Across the Lifespan
Prerequisites: Departmental approval.
Description: Course will explore the following topics: Violence Against Children, Violence Against Adolescents and Adults, Violence Against Elders, and Death evaluation and investigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5780 Clinical Aspects of Sexual Assault and Intimate Partner Violence
Prerequisites: Departmental approval.
Description: The course includes the concepts of a coordinated team approach, patient-centered care, forensic evidence collection, the examination process, documentation, medical forensic history, injury assessment and management, photography, strangulation, long-term health effects, impact on children, and evaluation, discharge, danger assessment, safety planning and follow-up. Also covered is the legal and ethical aspects of caring for an individual that has experienced IPV including informed consent, confidentiality, reporting, and testifying.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 5803 Circuit Exploitation of Destructive Devices
Prerequisites: Permission of instructor and faculty advisor.
Description: This course focuses on providing students with an introduction and overview of electronic and electro-mechanical initiator circuits used in Improvised Explosive Devices (IEDs). Part 1 of a 2-semester sequence course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5813 Building Construction and Fire/Explosion Forensic Examination
Prerequisites: Permission of instructor and faculty advisor.
Description: Provides an introduction to building construction. It will focus on the importance of building construction as applied to fire and explosion investigations. Topics will include: structural mechanics, building construction concepts, properties of building materials, building and fire codes, fire and explosion behavior as it relates to building construction, fire protection features, various building types, as well as structural collapse and safety considerations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5823 Forensic Examination of Fire Protection Systems
Prerequisites: Permission of instructor and faculty advisor.
Description: Teaches the basic components and functions of building fire protection systems such as fire alarms and suppression systems. An emphasis will be placed on how these systems can impact the spread of a fire and how information from these systems can be used to assist with an origin and cause investigations. Common modes of system failures will also be covered. This is a self-paced three- (3) credit course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5833 Identification of Destructive Device Fuzing Systems
Prerequisites: Permission of instructor and faculty advisor.
Description: Expands students' knowledge of destructive device fuzing systems and forensic exams of these systems. Focuses on the mechanical, chemical, and electrical fuzing systems of the destructive devices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5853 Electrical Theory and Failure Analysis in Forensic Fire Investigations
Prerequisites: Permission of instructor and faculty advisor.
Description: Teaches basic electricity and basic electrical failure analysis familiarizing with how electricity, electrical appliances, and electrical devices can be potential ignition sources in a fire. Topics include electrical theory, electrical wiring techniques, circuit protection, appliance protection, identification of electrical melting on conductors, scene investigation methodology, current research topics, and NFPA 921 considerations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5873 Firearms and Toolmarks
Prerequisites: Permission of instructor and faculty advisor.
Description: This course overview includes general history, and how firearm and toolmark-related evidence is handled from crime scene to court. The primary concern is if two or more toolmarks share a common source. Toolmarks include fired ammunition components or other crime scene recovered items, e.g., IED components. Firearm examinations determine functionality, conversion and restoration of obliterated serial numbers or other manufacturer-related markings, and assist in shooting reconstruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5883 History of Firearm Identification
Description: History of Firearm Identification will guide students through the inception of the discipline through early examinations and developments, which led to the common practices of today. The class covers broad topics such as case studies, contributors, technologies, and methods and challenges students to evaluate how and why the discipline has changed since the 19th century. This course may be taken concurrently with or after Firearms & Toolmarks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5893 Admissibility of Firearm Identification
Description: Forensic firearm and toolmark identification is an integral discipline for many private and governmental forensic laboratories. With many examinations resulting in court testimony, admissibility then is of vital importance and any examiner in the field must be able to sufficiently defend the science. This course will guide students through admissibility requirements as defined by federal and case law and provide material necessary to complete admissibility hearings in firearms identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5943 Forensic Management and Organizational Development
Prerequisites: FRNS 5013.
Description: Application of managerial and organizational leadership skills to the demands of forensic sciences, including attention to the human resource, relations and development issues. Inter-agency cooperation, quality control and assurance, certification and accreditation issues, and internal security.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5960 Forensic Problem Solving through Applied Research
Prerequisites: Permission from instructor and faculty advisor.
Description: Examines mixed research methodologies and designs applicable to the forensic sciences. The course launches work toward a thesis or creative component, including development of a purpose statement, research question and/or hypothesis as well as construction of an introduction and literature review. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5963 Forensic Statistics
Prerequisites: Permission of instructor and faculty advisor.
Description: Surveys statistical methodology relevant to forensic scientists. Provides a basic understanding of statistics presented in recent forensic literature. Hypothesis testing, ANOVA techniques, regression, categorical techniques. May not be used for degree credit with FRNS 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5970 Directed Readings in Forensic Sciences
Prerequisites: Permission of instructor and faculty advisor.
Description: Provides guided reading under direction and supervision of the instructor; in-depth, independent study on an identified topic relative to forensic sciences. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 5980 Non-Thesis Creative Component in Forensic Sciences
Prerequisites: Permission of instructor and faculty adviser; FRNS 5063 (concurrent enrollment allowed).
Description: Provides final-semester capstone experience for the non-thesis graduate student through independent research or projection management. Culminates with presentation of results in writing and in a public forum, which may be via electronic delivery or in person. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 5990 Special Topics in Forensic Sciences
Prerequisites: Permission of instructor and faculty adviser.
Description: Provides for exploration on special topics in the forensic sciences. Students gain an understanding at an advanced level of the particular topic presented. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6000 Doctoral Dissertation
Prerequisites: Consent of Doctoral faculty advisor.
Description: Doctoral research requirement culminating with a doctoral dissertation and PhD degree. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6083 Advanced Forensic Statistics
Prerequisites: FRNS 5963.
Description: Analysis of variance, experimental designs pertaining to Forensic Science research, regression and data modeling, and categorical techniques. May not be used for degree credit with STAT 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6113 Advanced Energetic Materials Chemistry and Engineering
Prerequisites: FRNS 5113.
Description: An in-depth review of the chemistry of explosives, pyrotechnics and propellants. The course will cover molecular structure and engineering concerns in the production and utilization of these materials. Including: oxidation/reduction chemistry - Enthalpy, Entropy, and Gibbs Free Energy; structural effects on density, detonation velocity, sensitivity, and energy outputs; testing and interpretation of sensitivity and performance; molecular structure and optimization of physical characteristics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6123 Advanced Fire Dynamics
Prerequisites: FRNS 5123 and permission of instructor and Faculty Advisor.
Description: Advanced fire dynamics will reinforce and expand upon the fundamentals of fire dynamics learned in the prerequisite class. This course will cover advanced concepts in Fire Dynamics, including ventilation effects and application of fire dynamics principles to real-world fire investigations. Previously offered as FRNS 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6163 Blast Modeling
Description: Provides an overview of blast phenomenology and practical methods for modeling the blast environment and the response of structures, equipment, and personnel. Students will gain an understanding of the assumptions, limitations, and errors associated with different modeling approaches to understand and correctly interpret results and know when higher fidelity modeling approaches may be necessary.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6173 Advanced Interdisciplinary Post Blast Investigation
Prerequisites: FRNS 5443.
Description: Demonstrates a systematic method of investigating an explosion scene. Provides instruction in explosives identification, applications, effects, fragmentation analysis, IED component recognition and evidence collection, including DNA. Previously offered as FRNS 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6183 Advanced Computer Fire Modeling
Prerequisites: Permission of instructor and faculty advisor; FRNS 5183 Basic Computer Fire Modeling.
Description: Focuses on the creation and usage of fire models to assist with fire investigations. Topics include advanced meshing techniques; modeling of wind and other ventilation sources; using model output to diagnose problem areas; how to conduct sensitivity analysis of computer fire model results and discussion of use of fire models in the support of investigations and trials. Previously offered as FRNS 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6243 Historical Evolution of Forensic Genetics
Prerequisites: Graduate standing.
Description: Intended to trace the evolutionary progression of the field of Forensic Biology and Genetics from its origins in the 1970s with the use of serological methods to current day DNA testing routinely used worldwide for the investigation of crime and in cases of questioned family relatedness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6263 Threat Assessment and Management of Violent Extremism
Prerequisites: FRNS 5273.
Description: This course will introduce the ideologies, patterns, and actions associated with violent extremism and the threats posed by such. Will Include a focus on the ideologies within domestic extremism Including understanding the motivations of violent extremists. This course will cover key theories explaining extremist radicalization, recruitment, engagement, and mobilization In the US. We will examine the current groups as well as emerging threats affecting US interests domestically and abroad.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6273 Threat Assessment and Management of Workplace Violence
Prerequisites: FRNS 5273.
Description: Threat Assessment and Management of Workplace Violence will cover the concepts of individuals that seek to or do harm to coworkers from a threat assessment standpoint. Students will learn about the different types of workplace violence. Students will understand violence in certain occupations including post offices and healthcare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6283 Threat Assessment and Management of Violence in Schools
Prerequisites: FRNS 5273.
Description: Threat Assessment and Management of Violence in Schools explores individual threats in the K-12 system. Students will understand the basics of threat assessment and management as it applies to schools, Including information gathering and working in teams on specific protocols. Students will explore the legal and ethical dilemmas posed in this unique setting. Finally, students will review the case study of a school shooter, T.J. Lane.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6293 Threat Assessment and Management of Stalking
Prerequisites: FRNS 5273.
Description: Threat Assess. and Mgmt. of Stalking delves into the phenomenon of repeated harassment with the intent of causing fear in others. An in-depth look at the psychology of stalking, from motives, typologies, and attachment theory. The course covers the laws regarding stalking along with police response, and an evaluation of protective orders. There will be an analysis of the role of cyber technology and social media and stalking. These concepts will be applied to the stalking case, John Hlnkley Jr.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6400 Case Studies in Forensic Science
Description: This course provides interested students with in-depth analysis Into different case studies In the field of forensic science. As each case Is discussed, emphasis will be placed on behavioral characteristics, investigation, and outcomes. As the course concludes, the final lecture reviews themes, lessons, and consequences learned. Topics explored In this series will be serial killers, mass shooters, violent extremism, etc.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6423 Advanced Blast Injuries and Effects
Prerequisites: FRNS 5423 or permission of instructor and faculty advisor.
Description: This course is a comprehensive view into nuances of explosive effects on the human body, building on FRNS 5423. Fifth order effects/Quinary effects of blast injury will be scrutinized. Focus on Quinary effects, the contamination and after affects, including but not limited to: radiological, chemical, and biological effects from explosives. Course provides students opportunity to research focus area of interest related to casualties of explosive events. Previously offered as FRNS 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6513 Advanced Methods in Forensic Genetics
Prerequisites: Graduate standing.
Description: This course is designed to develop a deep theoretical understanding as well as practical laboratory skills in sophisticated methods for the molecular analysis of DNA and RNA that may exist as biological evidence recovered from a crime scene.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Forensic Sciences

FRNS 6663 Network Forensics
Prerequisites: Digital and Multimedia Evidence for Investigators FRNS 5683.
Description: The student will develop a foundational understanding of recovering Information from a compromised networked environment that may Identify an intrusion perpetrator. As a result of the discussions, readings, lectures, and labs conducted during the class, the student is expected to understand and demonstrate processes used in network forensics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6673 Mobile Device Forensics
Prerequisites: Digital arid Multimedia Evidence for Investigators (FRNS 5683).
Description: The student will develop the skills to extract and analyze information stored on mobile devices, to Include cellular phones, loT devices and drones. As a result of the discussions, readings, lectures, and labs conducted during the class, tho student is expected to understand and demonstrate the processes used in mobile forensics that relay information about the user of the device to include communication, location, and intent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6683 Computer Forensics, Extractions and Analysis
Prerequisites: FRNS 5683.
Description: As a cornerstone of the Digital and Multimedia Evidence discipline, computer forensics Is the application of tested and validated processes used to recover and investigate data extracted from computers. This class will focus on the extraction and analysis of user data and how those ‘traces” can inform an Investigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6713 Applied Forensic Theory
Prerequisites: Graduate standing.
Description: Cover the basics of popular criminological, criminalistics, and criminal justice theories used in social, behavioral and forensic science research. Theories provide explanations for why individual engage and desist from crime and delinquency. These theories provide perspectives on the criminal justice system, the law, punishment, and the relation to criminal and civil law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6723 Research Design and Methods
Prerequisites: Graduate standing.
Description: This course covers fundamental methodologies associated with quantitative, qualitative, and mixed-methods research designs. Students will learn basic skills related to conducting scholarly literature searches, developing research questions, and determining appropriate sampling techniques. Throughout the course, students will develop their own research project, refine academic writing skills, and become more informed consumers of empirical research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6733 Juvenile Issues in Forensic Sciences
Prerequisites: Graduate standing.
Description: Focuses on the nature and extent of delinquency, the causes of delinquency, patterns of delinquency, and reactions to delinquency. Covers the scientific approach to understanding delinquency, the law and both the civil and criminal juvenile justices systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6743 Doctoral Forensic Science Theory
Prerequisites: Graduate standing. Admission to Doctor of Forensic Sciences degree.
Description: Entry-level theory course for all subspecialty tracks in forensic sciences. Builds upon prior coursework/professional experience to prepare returning student for an area of doctoral specialization and provide a clinical/theoretical background aligning with current trends within the field of Forensic Sciences.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6753 Doctoral Forensic Science Applications
Prerequisites: Graduate standing. Admission to Doctor of Forensic Sciences degree.
Description: Entry-level applications course for all subspecialty tracks in forensic sciences. Builds upon prior coursework/professional experience to prepare returning student for an area of doctoral specialization and provide a clinical/theoretical background aligning with current trends within the field of Forensic Sciences.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6800 Critical Readings in Forensic Sciences
Prerequisites: Consent of faculty advisor.
Description: Provides experience with the primary literature in forensic sciences, with training in evaluation methodologies, experimental design, data presentation, and statistical designs. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6833 Advanced Identification of Destructive Device Fuzing Systems
Prerequisites: FRNS 5833 and permission of instructor.
Description: The purpose of this course is to expand students' knowledge of destructive device fuzing systems using inexpensive commercial off-the-shelf microcontroller-enabled hobbyist boards and sensor modules, course material focuses on developing and understanding of how microcontroller-enabled hobbyist boards and inexpensive sensor modules can be used to function improvised explosive and incendiary devices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6843 Advanced Destructive Device Circuit Exploitation
Prerequisites: Permission of instructor and faculty advisor; FRNS 5803 Circuit Exploitation of Destructive Devices.
Description: Examines electro-mechanical IED designs that are found on the open-source Internet. Examines electro-mechanical initiator circuitry from the perspective of forensics. Examines initiator circuit families such as: Timers, Pressure Sensitive, Radio Controlled, etc. Previously offered as FRNS 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6853 Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations
Prerequisites: Permission of instructor and faculty advisor; FRNS 5853 Basic Electrical Theory and Failure in Forensic Fire Investigations.
Description: Provides the student with a more advanced understanding of electricity, energy, and power. Allows the ability to comprehend electrical failures and explain them to a jury. Previously offered as FRNS 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6903 Advanced Forensic Examination of Firearms
Prerequisites: FRNS 5873.
Description: Advanced Firearm Identification deals with advanced aspects of the forensic science discipline of firearm identification. This course builds on the introductory course Overview of Firearm and Toolmark Identification by going into detail with respect to firearm-related evidence and how it is examined and compared by a firearm examiner in a forensic laboratory. The course will discuss firearm-related evidence from the crime scene to the courtroom - its recovery, examination, comparison and investigative value.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6913 Advanced Toolmark Examination and Identification
Prerequisites: FRNS 5873.
Description: This course will detail the various concepts and issues with which the forensic toolmark examiner must be concerned to include tool manufacture, toolmarks at the crime scene, basic mircoscopy for the examiner, laboratory examination of toolmarks, interpretation and evaluation of toolmark examinations, manufacturing marks, physical matching, report writing, and presentation in court.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6923 RCIED - Advanced Analysis and Mitigation
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6933 Shooting Reconstruction for Examiners
Prerequisites: FRNS 5873.
Description: This course will introduce students to the basic tools and tests used to reconstruct shooting scenes. Basic trajectory analysis, test for bullet defects, ricochets and Firearms Operability are some of the topics that will be introduced. Upon completion of this course students will have a basic knowledge of how to properly document and reconstruct shooting scenes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Forensic Sciences

FRNS 6970 Advanced Directed Readings in Forensic Sciences
Description: Through independent study students will broaden their perspective and understanding of a wide range of forensic sciences disciplines and professions to discover opportunities for continued learning, development and research. Students will utilize this course to explore forensic topics and literature leading towards a unique academic goal, publication or capstone project.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6980 Doctoral Capstone Experience in Forensic Sciences
Prerequisites: Consent of faculty advisor.
Description: Provides capstone experience for the non-dissertation doctoral student through independent research or projection management. Culminates with presentation of results in writing and in a presentation, which may be via electronic delivery or in person.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

FRNS 6990 Advanced Special Topics in Forensic Sciences
Prerequisites: Consent of faculty advisor.
Description: Tutorials in areas of forensic sciences not addressed in other courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Forensic Sciences

Foundations of Education and Psychology (FDEP)

FDEP 5183 Theories of Social Psychology
Prerequisites: Permission of instructor.
Description: History, theories, and empirical findings regarding the interactions between individual and group functioning. Previously offered as EPSY 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 5493 Psychology of Learning and Behavior
Description: An introduction to the psychology of learning and behavior. Examination of the principles of Classical and Operant conditioning and integration of these and other learning theories into applied settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 6123 Biological Bases of Behavior
Description: A study of the physiological basis for behavior. A survey of neurophysiology with emphasis placed upon sensory and motor processes, and the effect which emotion and motivation have upon the organization of behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 6133 History and Systems of Psychology
Description: History and systems of psychology related to contemporary applied psychology. Previously offered as EPSY 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

French (FREN)

FREN 1713 Elementary French I (F)
Description: Main elements of grammar and pronunciation, with work on the four basic skills of listening comprehension, speaking, reading and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 1813 Elementary French II (F)
Prerequisites: FREN 1713 or equivalent proficiency.
Description: Continuation of FREN 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2713 Intermediate French (FG)
Prerequisites: FREN 1813 or equivalent proficiency.
Description: Further development of speaking, listening, reading, and writing skills along with short cultural and literary readings. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

FREN 2723 Intermediate Grammar and Composition I
Prerequisites: FREN 1813 or equivalent proficiency.
Description: Review and further presentation of grammar and pronunciation; consolidation of basic skills, with additional emphasis on writing. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2813 Intermediate Reading and Conversation
Prerequisites: FREN 2713 or equivalent proficiency.
Description: Reading and discussion of more advanced French texts, mostly literary. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2232.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2823 Intermediate Grammar and Composition
Prerequisites: FREN 2713 or equivalent proficiency.
Description: Review and further presentation of grammar and pronunciation; consolidation of basic skills, with additional emphasis on writing. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3073 French Conversation
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Colloquial speech, with discussion of French newspapers and magazines. Practice in brief public address in French.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3203 Advanced Written Expression
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Practice in composition and stylistics, designed to bring students up to a high level of proficiency in writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3213 Advanced Grammar
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Conceptual framework and presentation of the finer points of French grammar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3343 Business French
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Applied French for students in commercial and technical fields. Overview and strategies of business and economic climate in France.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3463 Advanced Diction and Phonetics
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Required course for teacher certification. French speech sounds and intonation patterns, with practice to improve the student's pronunciation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3853 Introduction to Analysis of French Literature
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Close reading of shorter texts in a variety of literary genres, with presentation of French versification and literary terminology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4153 Survey of French Literature I
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Historical survey of French literature before 1800, with reading of representative texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4173 Survey of French Literature II
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Historical survey of French literature since 1800, with reading of representative texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4333 Background of Modern French Civilization
Prerequisites: 18 hours of French or equivalent proficiency.
Description: General overview of French history, geography, and culture, with emphasis on art, music, and intellectual movements. Capstone course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4550 Directed Studies in French
Prerequisites: 18 credit hours of French or equivalent proficiency.
Description: Individual or group study of French language or literature. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

FREN 4573 Modern French Theater
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Analysis of French plays from the 19th and 20th centuries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4583 French Cinema
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Introduction to cinematic analysis through a survey of French movie classics from the 1890s to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 5110 Advanced Studies in French
Prerequisites: 15 credit hours of upper-division French.
Description: Discussion or research in specialized topics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Languages and Literatures

Gender and Women's Studies (GWST)

GWST 2113 Transnational Women's Studies (S)
Description: Introduction to research on women and gender in transnational contexts. Interpersonal relationships, socioeconomic status, power and authority as women experience them, myths and realities among women of different races, classes, ethnicities, sexual orientation, nationalities, ages, and physical ability. Previously offered as WMST 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

GWST 2123 Introduction to Gender Studies (DH)
Description: Introduction to critical thinking about the construction of gender and the intersections of gender with race, ethnicity, class, and sexuality. Basic methods of studying gender from an interdisciplinary humanities perspective. Previously offered as WMST 2123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

GWST 3443 Gender Relations in Chinese History (H)
Description: This course examines men's and women's social, cultural, religious, political, economic, family, and sexual experiences in Chinese hist; particularly women's own voices and efforts in pursuing their own goals and aspirations. Same course as HIST 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 3450 Topics in Gender Studies
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Suggested topics include: women and health, women and science, women and religion. Previously offered as WMST 3450. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 3513 Theorizing Sexualities (D)
Prerequisites: GWST 2113 or GWST 2123.
Description: Examination of poststructuralist and/or feminist theories of sexualities in contexts of film, literature, history, or popular culture. Likely theorists include Foucault, Butler, D'Emilio, Lorde, Kristeva, Anzaldua, Chow, and/or Chauncey. Previously offered as WMST 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion, and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as REL 3523 and GEOG 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 3553 LGBTQ Lives in the United States (D)
Description: Introduction to the Study of lesbian, gay, bisexual, transgender, intersex, and queer+ (LGBTQ) experiences, representations, cultural practices, and resistance to oppression in the contemporary United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3613 Race and Reproduction in the U.S. (D)
Prerequisites: GWST 2113 or GWST 2123 recommended.
Description: An interdisciplinary examination of the inextricable relationship between race relations and reproductive politics. Issues explored include malthusianism, sterilization abuse, criminalizing pregnancy, natalism and nationalism, eugenics, the role of women of color in campaigns for reproductive justice, and representations of motherhood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3713 Gender and Representation (D)
Description: Cultural analysis of gender representation and gender relations. Using cultural texts and practices in several areas such as children's culture, sport, music, film and TV. Previously offered as WMST 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3813 Mothering
Description: This course offers an interdisciplinary study of motherhood and mothering, exploring its social and cultural contours, diverse representations, and varied practices from GWST, feminist, intersectional, and LGBTQ perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 3913 Gender, Violence & Justice (D)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 4013 Approaches to Feminist Research
Prerequisites: GWST 2113 or GWST 2123 or consent of instructor.
Description: Examines the ethics and epistemologies of methodologies and theoretical frameworks most conducive to feminist analysis. This course prepares students to conceptualize their own research projects. Previously offered as WMST 4013. May not be used for degree credit with GWST 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4113 Feminist Theories
Prerequisites: GWST 2113 or GWST 2123 or consent of instructor.
Description: Examines the different types of feminist theories and the role theory plays in the production of knowledge. A variety of feminist theories will be considered from an interdisciplinary perspective. Previously offered as WMST 4113. May not be used for degree credit with GWST 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4333 History of Sexuality in the United States (D)
Description: This course examines the history of sexuality in the U.S. from the 16th century to the present. It considers how social, cultural, political, and economic conditions have affected changing meanings of sexuality over time. It takes an intersectional approach, paying particular attention to how issues of race, class, and gender have shaped attitudes towards and experiences of sexuality in the American past. Same course as HIST 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 4413 Sex & Gender in the Medieval World
Description: Historical attitudes toward sex and gender history in medieval Europe. Interdisciplinary approach also including cultural, social, economic and religious history. Same course as HIST 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4503 Theorizing Men and Masculinities
Prerequisites: GWST 4113 or permission of instructor.
Description: Examines the roles of men in various cultural contexts, the historical development of manhood as an ideal, and theories of masculinities. May not be used for degree credit with GWST 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4613 Women in the Bible (H)
Description: This course will examine the stories about and portrayals of women in the Bible. We will explore what the biblical authors have to say about women within their cultural contexts and how these portrayals have shaped how women are seen in Western society. By analyzing the portrayals of women in antiquity, the course will also provide conceptual tools to help students examine how gender has been understood in Western society. Same course as REL 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 4890 Internship in Gender and Women's Studies
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a GWST related professional work setting. Students must have an approved internship that will provide gender and women's studies experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

GWST 4950 Special Topics in Global Feminism
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Selected topics in the problems and issues of global women's and feminist activism. Highlights the continuing fight to secure gender equality, especially in developing nations. Exploration of the women's movement links with other human rights struggles across the globe. Previously offered as WMST 4950. May not be used for degree credit with GWST 5950. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4990 Directed Readings in Gender Studies
Prerequisites: Permission of instructor.
Description: Examines gender studies issues and topics. Previously offered as WMST 4990. May not be used for degree credit with GWST 5990. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5013 Approaches to Feminist Research
Description: Examines the epistemologies, theoretical frameworks, and ethics of methodologies conducive to feminist analysis. This course prepares students to conceptualize and undertake their own research projects. May not be used for degree credit with GWST 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5103 Gender and Sexuality
Description: This course offers an interdisciplinary survey of major works and key concepts in the field of Gender and Women's Studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5113 Feminist Theory
Description: Examines diverse feminist theories and their role in the production of knowledge. A variety of contemporary feminist theories will be considered from an interdisciplinary perspective. May not be used for degree credit with GWST 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5300 Seminar in Gender and Women's Studies
Description: This course will offer a topics-based graduate colloquium in the interdisciplinary and international field of Gender and Women's Studies. Potential topics include Gender and Modern War, Feminist Aesthetics, Sexuality and Space, Cold War Masculinities, and Gender and International Relations. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5503 Theorizing Men and Masculinities
Prerequisites: GWST 4113 or permission of instructor.
Description: Examines the roles of men in various cultural contexts, the historical development of manhood as an ideal, and theories of masculinities. May not be used for degree credit with GWST 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5913 Gender, Violence and Justice
Description: This course provides a transnational, intersectional examination of gender-based violence and varied forms of justice. Issues explored might include violence against women, domestic violence, human trafficking, sexual harassment, policing, incarceration, as well as anti-violence activism and alternatives to criminal legal system. May not be used for degree credit with GWST 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5950 Special Topics in Global Feminism
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Selected topics in the problems and issues of global women's and feminist activism. Highlights the continuing fight to secure gender equality, especially in developing nations. Exploration of the women's movement links with other human rights struggles across the globe. May not be used for degree credit with GWST 4950. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5990 Directed Readings in Gender and Women's Studies
Prerequisites: Permission of instructor.
Description: Specialized readings or independent study in GWST. May not be used for degree credit with GWST 4990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

General Engineering (GENG)

GENG 4010 Senior Design Project
Prerequisites: Senior standing in general engineering.
Description: Capstone design project through independent application of engineering principles and concepts from the disciplines covered in earlier course work. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Engineering Technology

General Technology (GENT)

GENT 2323 Statics
Prerequisites: MATH 2123 or 2144 and PHYS 1114 or PHYS 2014.
Description: Forces acting on bodies at rest; forces, moments of force, distributed forces, reactions, free-body diagrams, friction, internal forces and moments of inertia. Applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

GENT 2650 Technical Projects
Prerequisites: Completion of three semesters' work in a technical institute curriculum.
Description: Special projects assigned by advisers with the approval of the director. A comprehensive written report must be prepared and an oral examination may also be required. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Engineering Technology

GENT 3323 Strength of Materials
Prerequisites: MATH 2123 or MATH 2144 with grade of "C" or better in GENT 2323 or ENSC 2113.
Description: Stress and strain and their relation to loads. Axial, torsional and bending loads, beam deflection, columns and combined stresses. Applications emphasized. Course previously offered as MCDT 3323 and MET 3323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

GENT 5113 Intelligent Mechatronics Systems and Robotics
Prerequisites: GENT 3123 or equivalent.
Description: Modelling of mechanical, electrical, and hydraulic components and robotic manipulators. Control systems design, electro-hydraulic drives, electrical drives, robotic manipulator and intelligent control design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Engineering Technology

Genetics (GENE)

GENE 5102 Molecular Genetics
Prerequisites: BIOC 3653 or MICR 3033 and one course in genetics or consent of instructor.
Description: An introduction to molecular genetics on the graduate level.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

Geography (GEOG)

GEOG 1022 Climate Change and Humanity (N)
Description: Focus on the development of scientific inquiry and critical thinking skills needed to evaluate complex relationships among climate, energy production, and the environment. Students will explore causes and consequences of climate change and consider climate change science from alternative perspectives. Same course as GEOL 1022.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 1113 Introduction to Cultural Geography (GS)
Description: Surveys the principles of human geography by exploring the world's diverse patterns of culture and associated cultural landscapes. Examination of global patterns of population; language; religion; ethnic, national, and sexual identities; the development of regions, cities, and industry; food production and environmental change, especially as they are affected by globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 1114 Introduction to Physical Geography (LN)
Description: Study of the atmosphere, hydrosphere, lithosphere, and biosphere-the major realms that interact to create Earth's environmental patterns. Human-environmental interactions are emphasized as the environment affecting people and people affecting the environment. The lab rounds out knowledge in course themes through hands on study of maps, GPS, and environmental processes.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: Geography Field Trip fee of $50 applies.

GEOG 1713 Regions & Nations in Global Context (GS)
Description: A regional approach to the study of human societies and the makeup of nations around the world, with an emphasis on contemporary issues such as climate change, sustainability and other environmental impacts; population and immigration; cultural, religion and language; and economic characteristics such as wealth disparities, poverty and education. This course covers many distinct world regions in each region such as Europe, Latin America, the Middle East and Southeast Asia. Previously offered as GEOG 2253. Same course as GLST 1713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 2002 Global Sustainability (N)
Description: This course examines questions of sustainability and sustainable development in a global context from environmental, social, and economic perspectives. Emphasis is placed on how different dimensions of sustainability interact, and how those interactions are shaped by regional context in a globalized world. Through discussion of policy and current environmental issues around the world, students will learn to analyze relationships and tradeoffs between humans and their environment. Same course as GLST 2002.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 2103 Global Perspectives (GS)
Description: Introduces students to the cultural, economic, and political aspects of globalization and global issues. Emphasizes the relationship between tradition and change, the interconnectedness of people, places, and institutions, aspects of social and economic development, and the evolving role of technology in creating and sustaining a globalized world. Also introduces students to possible career options. Same course as GLST 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 2344 Digital Tools for Environmental Problem-Solving (LN)
Description: This course provides an introduction to some cool tools for environmental problem-solving. These tools mainly include the Global Positioning System (GPS), geographic information systems (GIS), and remote sensing, also referred to as geospatial technologies. With a combination of lectures and hands-on exercises, students will become familiar with the fundamentals of these cool tools, and their applications in the environment such as in public health, climate change, water resource, food security, disaster assessment and recovery, deforestation.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOG 2890 Honors Experience in Geography
Prerequisites: Honors Program participation and concurrent enrollment in a designated GEOG course.
Description: A supplemental Honors experience in Geography to partner concurrently with designated Geography courses (GEOG 1113, 1114, and 1713). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Honors Credit

GEOG 3023 Climatology (N)
Description: A non-quantitative introduction to characteristics and distributions of long-term patterns in the atmosphere. Patterns and associations of temperature, precipitation, pressure and winds. Physical processes, regional climates of Earth, climate change, and applications of climate to agriculture, industry, and other human activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 3033 Meteorology (N)
Description: A non-quantitative introduction to weather. Physical elements that cause and influence the atmosphere over the short term. Energy, moisture, and storms. Interpretation of weather maps and satellite imagery.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 3053 Introduction to Central Asia Studies
Description: A comprehensive view of newly-emerged Central Asian states, examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as reflected in their thoughts, religion, literature, and architecture in the past, and the strategic importance of their natural wealth for the present and future. Same course as GLST 3053, HIST 3053, POLS 3053 & RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3063 Economic Meteorology
Description: Economic impact of weather ranging from consumer spending to agriculture and energy commodity markets. Specific weather events, and their associated economic impact, weather and climate forecasting and methods for eliminating weather risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3093 Historical Geography of North America to 1800 (H)
Description: This course is an examination of the cultural geography of colonial North America from the earliest European contact with Native Americans to the end of the 18th Century. The course examines regional patterns of indigenous American Indian settlement, European exploration, trade, colonization. Immigration, impacts upon indigenous societies, and the development of preindustrial economic regions. Students will gain an appreciation of the interactions of various indigenous, European, and African peoples in different environments in the colonial era. Same course as HIST 3093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3113 Global Water Resources: Sustainability & Justice (GS)
Description: Water resources are key to the success of societies in all of their various forms. This course introduces students to fundamental concepts of water resources, including the natural processes of the hydrological cycle, management of water resources, and societal threats to sustaining water quantity and quality. Students in this course will develop an awareness and appreciation of the multiple perspectives about water as a precious resource, commodity, and point of justice. Same course as GLST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3123 Urban Geography (S)
Description: This course seeks to explain the evolving pattern of North American cities and their antecedents in terms of the distribution and movement of people and resources as well as the effects of changes in transportation and communication technology. In addition, a careful analysis of the development and internal spatial structure of North American cities will be carried out. Much class time will be spent on discussion of contemporary urban problems such as segregation, unequal investment, and control of urban public space as well as attempts at their solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3133 Political Geography (GS)
Description: Political structures, relationships and geopolitical implications of location, boundaries, culture and the natural environment of nations and states. Global patterns of political behavior, political history, international law and geostrategy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3153 Conservation of Natural Resources (S)
Description: A focus on the stewardship and sustainable management of our natural resources. Problems and corrective methods in the conservation of land, water, forests, wildlife, and mineral resources. Key themes include the relationships between human and environmental systems, degraded landscape restoration, environmental policy and compliance, and economic implications of natural resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3163 Economic Geography (S)
Description: Processes significant to the spatial structure of economic systems. Production, consumption and exchange activities examined in regard to location, distribution, aerial differentiation and spatial interaction patterns. Attention given to processes of change as well as to steady states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3173 Cultural Geography (S)
Description: Geographic impact of human cultures. Emphasis on the concepts of social space, density, crowding, territoriality, diffusion, migration, environmental perception and cultural landscape.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3183 Transportation Geography
Description: Basic concepts and theories of transportation geography, selected transportation models and analysis methods related to spatial interactions, network analysis, allocation, and urban transportation planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3203 Contemporary Issues in Geotechnology
Description: A look at critical issues currently facing the geography and geotech communities. Topics will include data sources, privacy, surveillance, internet censorship, big data, and the spaces and politics of code to discuss the impacts of technology on society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3213 Digital Worlds: Culture, Identity, and Community (H)
Description: An introduction to the geographies of communication and media in the context of recent technological changes. Students will learn how online and offline spaces are created and interact as a result of social media and telecommunications technology. Topics include: geographies of the internet, the digital divide, media culture, video game spaces, and online politics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3243 Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)
Description: Geographical perspective on the evolution of U.S. federal Indian law and policy through an examination of case and statute law. Examination of tribal sovereignty and jurisdiction over lands in aboriginal title and federal trust, and how land defines indigenous identities and affects tribal-state relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GEOG 3333 Spatial Analysis (Q)
Prerequisites: STAT 2013 or STAT 2023 or STAT 2053 or STAT 4013 or STAT 4053.
Description: An introductory course in the application of basic statistical methods to spatial problems, including descriptive statistics, probability distributions, point and interval estimation, hypothesis testing, correlation, and simple linear regression. Emphasizes the challenges of working with spatial datasets and choosing appropriate methods of analysis, as well as explicitly spatial methods such as spatial sampling, point and area pattern analysis, and spatial autocorrelation. Provides a foundation for further study in geospatial technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Analytical & Quant Thought

GEOG 3373 Health and Maps
Description: How does where people live affect their health? How does the infectious disease spread across places? Health geography provides unique and powerful insights for understanding connections between wellness and place. This course will introduce basic concepts and tools of maps, Geographic Information Systems (GIS), and map analysis. It will also demonstrate their application in the context of public health, including infectious disease, environmental health, urban health, health resource accessibility, and more.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion, and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as GWST 3523 and REL 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3703 Geography Of Oklahoma (S)
Description: Introduction to geography's regional approach through an examination of the cultural and environmental patterns of the State of Oklahoma. Systematic examination of physical regions, natural vegetation, wildlife and resource bases. Exploration of diverse Native American communities as well as European ethnic and African American settlement. Focus on evolving agricultural regions and the mineral industries and population dynamics in both rural and urban areas. Emphasis on cultural landscapes and representation of Oklahoma in popular culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3713 Exploring North America and Diversity (DS)
Description: This course presents a regional analysis of the United States and Canada, including physical and cultural landscapes, population and migration trends, regional development, natural resources, and U.S.-Canada relations as well as global relations. In addition, it emphasizes diversity in both countries, with special attention to those geographies of under-represented and minority groups in the U.S. May not be used for degree credit with GLST 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GEOG 3723 Europe (GS)
Description: This course examines the cultural, economic, and natural diversity of Europe in relation to globalization, climate change, and popular culture. Basic geographic concepts such as migration, region, and culture will be linked to European current events. Students will learn to properly utilize online sources to understand current European issues and their relationship to other countries and regions around the world. May not be used for degree credit with GLST 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3733 Russia and Its Neighbors (GS)
Description: A regional survey course of Eurasia extending from Central Europe to Western Siberia. Central and Southwest Asia will not be considered in this course. Thematic contemporary issues in the region will be covered, including topics on culture, politics, social issues, economic development, and others. May not be used for degree credit with GLST 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3743 Latin America (GS)
Description: A regional analysis of physical, cultural and economic features of historic and contemporary Latin America. Key themes include people and environment, development and change, government and conflict, and globalization and social change. Same course as GLST 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3753 Asia (GS)
Description: A regional survey course of Asia from Pakistan in the west to the Asian littoral in the east, including Japan, Taiwan, and the Philippines. Central and Southwest Asia will not be considered in this course. Regionally, Asia will be approached through examination of two great cultural focal points: India and China. Thematic contemporary issues in Asia will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GLST 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3763 Africa (GS)
Description: An exploration of the patterns and impact of population, cultural heritage, and natural resources to build an understanding and experience with Africa. Historic and contemporary relationships between Africa and Western civilization. Key themes include traditions and lifeways, development and change, government and conflict, and people and environment. Same course as GLST 3763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3783 The Middle East (GS)
Description: A regional analysis of the Arab, Persian and Turkic lands that builds an understanding and experience with the Middle East. Historic and contemporary patterns highlight both tradition and modernity. Key themes include lifeways and social change, development and globalization, international relations and conflict, and natural resources and environment. Same course as GLST 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3793 Australia and the Pacific Realm (GS)
Description: Study of Australia, New Zealand, and the island regions of Micronesia, Melanesia, and Polynesia. Course examines the cultural and natural diversity of these regions in relation to globalization, climate change, and popular culture. Course covers enduring cultural traditions, legacies of external involvement, changing livelihoods and landscapes, and the region's role in global affairs. Same course as GLST 3793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3910 Applied Geographical Topics
Description: Specialized physical, human, regional, or technical issues and trends in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3990 Geography Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written papers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4003 Natural Hazards and Society
Description: Explores natural hazards and how humans respond and contribute to these hazards and how humans respond and contribute to these hazards and disasters such as earthquakes, extreme weather events and volcanic eruptions. The course will also examine how hazards impact society, how society deals with disasters, and how we can mitigate the effects of such events.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4023 Arid Lands and Drought (N)
Description: The course explores the world of deserts and semideserts, which together cover almost a half of the Earth's land surface, and almost a third of North America's, as well as areas threatened by drought. The course focuses on the nature of dryland environments and the challenges faced by human communities living in such environments, as well as the mechanisms of drought and desertification. No credit for students with degree credit in GEOG 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 4053 Biogeography, Biodiversity, and Humankind
Description: Biogeography is the study of spatial patterns of biological diversity and its causes. Biogeographers synthesize information from a very broad range of fields, including geology, ecology, paleontology, and climatology. This course is an introduction to the dynamics of biological distributions, speciation, extinction, and dispersals, island biogeography, and applications to species and biodiversity mapping, and the design and management of reserves and other protected natural territories. May not be used for degree credit with GEOG 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4063 Geoarchaeology and Environmental History
Description: Theoretical and methodological aspects of geoarchaeology, a discipline that aims at recovering field data for reconstructing environment-society relationships of the past. Key themes include climate change and human-induced land transformation as demonstrated through interdisciplinary research in different geomorphic contexts and cultural groups (hunter gatherers, agriculturalists, and urbanites) from around the world. Meets with GEOG 5063. No credit for students with credit in GEOG 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4073 Climate Change: Past, Present, and Future
Description: Aims at understanding and discussing the mechanisms of global climate change and how they have functioned in our past, in the recent decades and how scientists predict possible changes in the near and distant future. Meets with GEOG 5073. No credit for students with credit in GEOG 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4083 Grasslands and Savannas: Evolution and Environmental Issues
Description: This course is an analysis of the nature, distribution, and evolution of grasslands, savannas, and other grass-dominated ecosystems around the world, with emphasis on their co-evolutionary development with climate, herbivore, fire, and humans, and the challenges faced modern global climate change and human development. Meets with GEOG 5083. No credit for students with credit in GEOG 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4093 Global Water Resources & Sustainability
Description: Water resources are key to the success of societies in all of their various forms. This course connects fundamental concepts of water resources, including natural processes of the hydrological cycle and societal threats to water quantity and quality, to a water security conceptual framework. With reference to SDG 6, topical issues will be explored in major international case studies to help students develop an awareness and appreciation for the multiple perspectives of water as a precious resource, commodity, and point of justice. May not be used for degree credit with GEOG 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4103 Historical Geography of North America since 1800 (H)
Description: Examination of North American development over the 19th Century, with emphasis on the transformation of environments, landscapes and culture regions. Investigation of settlement frontiers, indigenous dispossession, transport integration, resource exploitation, economic specialization, sectional divergence, industrialization, immigration, and urbanization. Same course as HIST 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 4113 Environment and Development
Description: Focuses on the relationship between people and poverty, environment, and development under different international contexts. The course covers competing theories of environment-development drawing from neoclassical economics and modernization agendas, to criticisms from postcolonial theory and beyond. Special emphasis is placed on diverse voices from the Global South, sustainable development, gender, race and nature, and new social movements. May not be used for degree credit with GEOG 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4123 Geographical Aspects of Urban Planning
Description: Spatial aspects of urban planning: development of planning theory, various planning tools, and specific problem areas such as urban renewal and urban transportation. May not be used for degree credit with GEOG 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4143 Geography of Travel and Tourism
Description: A systematic and comprehensive analysis of the geographical dimensions of tourism, illustrating the relevance of a spatial perspective to tourism planning, development, and management. Economic, social, and environmental impact of both domestic and international tourism considered. May not be used for degree credit with GEOG 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4153 Geography of Outdoor Recreation
Description: Analysis of patterns of outdoor recreation with an emphasis on land-use planning in park and wildland areas. Demand forecasting methods, the analysis of the socioeconomic and spatial impacts of recreation facilities provision and visitor management practices. May not be used for degree credit with GEOG 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4163 Resource Management in the National Parks
Description: Contemporary resource management issues in U.S. National Park units. The role of human and natural processes in the management of water, air, biotic and cultural resources. No credit for students with credit in GEOG 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4203 Fundamentals of Geographic Information Systems
Description: Geographic Information Systems (GIS) are pivotal in the analysis and management of geographic data. They are used to link environmental, social, and economic data to locations on earth and explore the relationships, trends, and patterns that emerge. This course introduces the concepts, principles, and theories behind GIS, with emphasis on the nature of geographic information, methods for data collection, data models for storing geographic information, techniques for data input and manipulation, and basic spatial analysis. Previously offered as GEOG 2343. May not be used for degree credit with GEOG 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4213 Sport, Place and Society (S)
Description: Spatial analysis of sport; its origin and diffusion, geographical organization and regional variation. Geographical movements and interaction associated with sport. Application of geographical solutions for reorganization and reform. Focus on both U.S. and international scene.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 4223 Geography of Music (H)
Description: Geographical and historical analysis of music as a cultural trait. The cultural significance of music and how it varies from place to place as well as how it helps shape the character of a place.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 4233 Human Dimensions of Global Environmental Change
Description: Discusses the current global environmental science research agendas called for by the international community, explores the arguments set forth regarding global environmental change, and looks at the current explanations and theories explaining the human dimensions of land-use/cover-change (lucc). Special emphasis is on alternative, competing visions, and needs of developing countries within the context of economic development and global environmental change. Meets with GEOG 5233. No credit for students with credit in GEOG 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4263 Geospatial Applications for Unmanned Aerial Systems
Prerequisites: Consent of instructor.
Description: Provides theoretical foundation for use of unmanned aerial systems (UAS) to collect geospatial data for analysis. Examines principles of remote sensing, photogrammetry, and GIS relevant to UAS. Enabling technologies (sensors, GPS), data collection procedures, data processing (structure from Motion algorithms), data products (point clouds, orthophotos), and appropriate analysis techniques are investigated. Geospatial application areas include terrain modeling, resource management, agriculture, forestry/vegetation, natural disasters, and geomorphology. May not be used for degree credit with GEOG 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4273 Land Use Science
Description: Basic understanding of human land use history and changes. Evaluation of land use impacts on environment, climate, and public health. Introduction to land use monitoring and modeling using geospatial technologies. Meet with GEOG 5273. No credit for students with credit in GEOG 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4303 Applications of the Global Positioning System in Field Research
Description: Theory and applications of the Global Positioning System (GPS), focusing on accuracy issues in field data collection and integration with geographic information systems (GIS). Use of both recreation and mapping grade receivers. May not be used for degree credit with GEOG 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4313 Field Techniques and Geodata Collection
Prerequisites: Senior standing in GEOG or consent of instructor.
Description: Application of the concepts, methods, and field techniques for geographical analysis and research, including data acquisition, manipulation, analysis, and the presentation of results. Capstone course. Field trips.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4323 Mapping in Modern Society
Description: Thematic mapping and geovisualization of socioeconomic, cultural, and natural resource information. Discussion and application of various map design and layout techniques. Topics include the history of maps their types and usages, the various elements of a map layout, and how maps enable us to communicate spatial information in our modern world.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4333 Remote Sensing
Description: Introductory course in remote sensing focusing on digital image processing. Topics include data collection via satellites and unmanned aerial systems (a.k.a. drones), principles of electromagnetic radiation, multispectral, thermal, and light detection and ranging (LIDAR), and field data collection. Discussions focus on environmental applications including: agriculture, natural resource management, climate, geography, and wildlife management. Hands-on exposure to current image processing software. Meets with GEOG 5333. May not be used for degree credit with GEOG 5333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4343 Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4203.
Description: Provides a theoretical and practical understanding of geographic information systems and its applications in natural resource management. Introduces industry popular GIS software for spatial and aspatial data analysis. Explores specific conditions, requirements, and processing considerations that allow geospatial data to be manipulated for problem solving. Meets with GEOG 5323. No degree credit for students with credit in GEOG 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4353 Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4203.
Description: Theory and principles of geographic information systems (GIS) applied to socioeconomic problems, including location-allocation, market area determination, network analysis and analysis of demographic characteristics. May not be used for degree credit with GEOG 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4373 Geographic Information Systems in Public Health
Prerequisites: GEOG 4203.
Description: Qualitative and quantitative analysis of public health issues from two geographic perspectives: human environment and spatial. Topics include medical geography, disease mapping, spatial data for public health, and basics and applications of spatial statistics, geographic information system and remote sensing. Lectures are combined with case studies and lab illustrations throughout the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4383 Geospatial Programming with Python and AI Tools
Prerequisites: GEOG 4203
Description: This course is designed for students with limited coding experience who are interested in learning Python to explore geospatial data. It introduces basic programming concepts, with emphasis on Python scripting to automate geoprocessing tasks in ArcGIS Pro. It also covers open-source Python packages such as Pandas, GeoPandas, and Matplotlib for processing and visualizing spatial data. As AI gains popularity, the course introduces various AI tools, including ChatGPT and GitHub Copilot, to enhance students' geospatial programming skills. May not be used for degree credit with GEOG 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 5443. Same course as GLST 4443 and HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4453 Black Geographies & Memorialization in the Landscape (DH)
Prerequisites: Junior or senior standing or consent of instructor.
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. Same course as AMST 4453 and AFAM 4453. May not be used for degree credit with GEOG 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

GEOG 4510 Senior Project
Prerequisites: Senior standing and consent of instructor.
Description: Individually designed projects involving laboratory work, field work, library research or a combination of these. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4600 Geography Study Abroad (G)
Description: Participation in an international experience sponsored by the Department of Geography. Study Abroad courses typically involve the study of a country or region to provide an integrated understanding, through research and personal experience, of relevant cultural, historical, political, economic and environmental issues. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension

GEOG 4663 Web GIS: Trends, Principles, and Applications
Prerequisites: GEOG 4203.
Description: Web GIS has immense applicability to business, health, economics, transportation, and more. This course is designed to increase students' knowledge of Web GIS and cutting-edge GIS skills. It introduces basic Web GIS concepts, principles, techniques, including web mapping applications. In addition, this course offers essential web programming skills to build customized online maps. May not be used for degree credit with GEOG 5663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4910 Topics In Geography
Prerequisites: Consent of instructor.
Description: Specialized physical, social and methodological topics in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4940 Undergraduate Cooperative Education Internship
Prerequisites: Consent of departmental internship coordinator and undergraduate committee.
Description: Practical experience in applying geographical concepts and tools to business or governmental problems. Emphasis on educational aspects of applying discipline-related tools to real-world problems. Credit not available for regular employment positions; must have fixed start/end dates. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4943 Geospatial Information Science Internship/Research Capstone
Description: Provides an opportunity to apply knowledge accumulated throughout previous geospatial coursework with a structured off-campus internship or on-campus research capstone. Practical, applied geospatial experience is gained by working with an internship supervisor at a public or private entity in consultation with an affiliated geography faculty member. Alternatively, research-oriented experience is gained through direct collaboration with an affiliated geography faculty member. For both options, student duties may include field-based data collection, data processing, computer programming, spatial analysis/modeling, map and graphics production, oral presentation, and/or writing.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader, both of whom will be present at an oral defense of the thesis. Required for graduation with honors in geography.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography
General Education and other Course Attributes: Honors Credit

GEOG 5000 Thesis
Prerequisites: Consent of adviser or major professor.
Description: Open only to students working on the master's degree in geography. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5001 Professional Development in Geography
Description: Introduction and orientation to the graduate program in the Department of Geography.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5023 Arid Lands and Drought
Description: The course explores the world of deserts and semi-deserts, which together cover almost a half of the Earth's land surface, and almost a third of North America's, as well as areas threatened by drought. The course focuses on the nature of dryland environments and the challenges faced by human communities living in such environments, as well as the mechanisms of drought and desertification.No credit for students with credit in GEOG 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5053 Biogeography, Biodiversity, and Humankind
Description: Biogeography is the study of spatial patterns of biological diversity and its causes. Biogeographers synthesize information from a very broad range of fields, including geology, ecology, paleontology, and climatology. This course is an introduction to the dynamics of biological distributions, speciation, extinction, and dispersals, island biogeography, and applications to species and biodiversity mapping, and the design and management of reserves and other protected natural territories. No credit for students with credit in GEOG 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5063 Geoarchaeology and Environmental History
Description: Theoretical and methodological aspects of geoarchaeology, a discipline that aims at recovering field data for reconstructing environment-society relationships of the past. Key themes include climate change and human-induced land transformation as demonstrated through interdisciplinary research in different geomorphic contexts and cultural groups (hunter gatherers, agriculturalists, and urbanites) from around the world. Meets with GEOG 4063. No credit for students with credit in GEOG 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5073 Climate Change: Past, Present and Future
Description: Aims at understanding and discussing the mechanisms of global climate change and how they have functioned in our past, in the recent decades and how scientists predict possible changes in the near and distant future. Meets with GEOG 4073. No credit for students with credit in GEOG 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5083 Grasslands and Savannas: Evolution and Environmental Issues
Description: This course is an analysis of the nature, distribution, and evolution of grasslands, savannas, and other grass-dominated ecosystems around the world, with emphasis on their co-evolutionary development with climate, herbivore, fire, and humans, and the challenges faced by modern global climate change and human development. No credit for students with credit in GEOG 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5093 Global Water Resources & Sustainability
Description: Water resources are key to the success of societies in all of their various forms. This course connects fundamental concepts of water resources, including natural processes of the hydrological cycle and societal threats to water quantity and quality, to a water security conceptual framework. With reference to SDG 6, topical issues will be explored in major international case studies to help students develop an awareness and appreciation for the multiple perspectives of water as a precious resource, commodity, and point of justice. May not be used for degree credit with GEOG 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5103 Fundamentals of Geographic Information Systems
Description: Geographic Information Systems (GIS) are pivotal in the analysis and management of geographic data. They are used to link environmental, social, and economic data to locations on earth and explore the relationships, trends, and patterns that emerge. This course introduces the concepts, principles, and theories behind GIS, with emphasis on the nature of geographic information, methods for data collection, data models for storing geographic information, techniques for data input and manipulation, and basic spatial analysis. May not be used for degree credit with GEOG 4203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5113 Landscape Ecology
Prerequisites: Graduate standing and BIOL 3034 or consent of instructor.
Description: Principles of landscape ecology, including structure and function of landscape elements such as patch, corridor, boundary, and matrix. Role of geographic processes, climate, biota, disturbance, and human influences in landscape structure and function. Interaction among landscape elements and role of landscape structure in ecosystem and landscape dynamics. Applications of landscape ecology to biodiversity conservation, wildlife management, and landscape planning. Survey of quantitative methods used in landscape ecology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5123 International Resource Management
Prerequisites: Graduate standing.
Description: Spatial perspectives on the assessment and management of natural resources. The role of resources in world trade, security and international environmental concerns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5133 Environment and Development
Description: Focuses on the relationship between people and poverty, environment, and development under different international contexts. The course covers competing theories of environment-development drawing from neoclassical economics and modernization agendas, to criticisms from postcolonial theory and beyond. Special emphasis is placed on diverse voices from the Global South, sustainable development, gender, race and nature, and new social movements. May not be used for degree credit with GEOG 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5140 Seminar in Cultural Geography
Prerequisites: Graduate standing in geography or consent of the instructor.
Description: A study of the methodological and theoretical development of cultural geography, one of geography's major subdisciplines. Course is structured around the social and political implications of ways of seeing, and what these have meant for encountering and understanding cultural difference. Emphasis on reading the cultural landscape and interrogating how the landscape reinforces certain ideologies, values, and aesthetics. Critical analysis of geographical representations found in place images, popular culture, and art in relation to social power, race, gender, and identity. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5143 Geography of Travel and Tourism
Description: A systematic and comprehensive analysis of the geographical dimensions of tourism, illustrating the relevance of a spatial perspective to tourism planning, development, and management. Economic, social, and environmental impact of both domestic and international tourism considered. May not be used for degree credit with GEOG 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5150 Geography of Sport, Recreation and Leisure Seminar
Description: This seminar is comprised of an advanced analysis of one or more topics in Sport Geography. The topics can include both cultural and economic issues in the spatial distribution of sport, or any other spatial aspect of the play, diffusion, or impact of sport. The seminar will also focus on student research activities on specific topics to sport geography. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5153 Geography of Outdoor Recreation
Description: Analysis of patterns of outdoor recreation with an emphasis on land-use planning in park and wildland areas. Demand forecasting methods, the analysis of the socioeconomic and spatial impacts of recreation facilities provision and visitor management practices. May not be used for degree credit with GEOG 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5163 Resource Management in the National Parks
Description: Contemporary resource management issues in U.S. National Park units. Focus on the role of human and natural processes in the management of water, air, biotic and cultural resources. No credit for students with credit in GEOG 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5183 Topics in Transportation Geography
Description: Examination of a selected set of advanced topics in transportation geography, including network analysis, facility location problems, intelligent transportation systems and geographic information systems and logistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5213 Geographical Aspects of Urban Planning
Description: Spatial aspects of urban planning: development of planning theory, various planning tools, and specific problem areas such as urban renewal and urban transportation. May not be used for degree credit with GEOG 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5233 Human Dimensions of Global Environmental Change
Description: Discusses the current global environmental science research agendas called for by the international community, explores the arguments set forth regarding global environmental change, and looks at the current explanations and theories explaining the human dimensions of land-use/cover-change (lucc). Special emphasis is on alternative, competing visions, and needs of developing countries within the context of economic development and global environmental change. Meets with GEOG 4233. No credit for students with credit in GEOG 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5243 Geography of the World's Indigenous Peoples
Prerequisites: Graduate standing and consent of instructor.
Description: A regional survey of indigenous assertions of cultural, political and economic self-determination outside the United States. Native land claims, impact of regional development and environmental issues upon indigenous communities, and their efforts to establish geo-political autonomy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5253 Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4203.
Description: Theory and principles of geographic information systems (GIS) applied to socioeconomic problems, including location-allocation, market area determination, network analysis and analysis of demographic characteristics. May not be used for degree credit with GEOG 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5263 Geospatial Applications for Unmanned Aerial Systems
Prerequisites: Consent of instructor.
Description: Provides theoretical foundation for use of unmanned aerial systems (UAS) to collect geospatial data for analysis. Examines principles of remote sensing, photogrammetry, and GIS relevant to UAS. Enabling technologies (sensors, GPS), data collection procedures, data processing (Structure from Motion algorithms), data products (point clouds, orthophotos), and appropriate analysis techniques are investigated. Geospatial application areas include terrain modeling, resource management, agriculture, forestry/vegetation, natural disasters, and geomorphology. May not be used for degree credit with GEOG 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5273 Land Use Science
Description: Basic understanding of human land use history and changes. Evaluation of land use impacts on environment, climate, and public health. Introduction to land use monitoring and modeling using geospatial technologies. Meets with GEOG 4273. No credit for students with credit in GEOG 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5303 Geographic Analysis I
Prerequisites: One course in statistics.
Description: An intermediate course in the application of statistical methods to spatial problems. Focuses on multivariate methods (e.g. multiple regression, factor and cluster analysis) and their use in geographic settings and with spatial datasets. Includes introductory spatial regression, methods for detecting spatial clusters (spatial autocorrelation), and the importance of exploratory spatial data analysis (ESDA) in geographic research. Course previously offered as GEOG 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5323 Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4203 or instructor permission.
Description: Provides a theoretical and practical understanding of geographic information systems and its applications in natural resource management. Introduces industry popular GIS software for spatial and aspatial data analysis. Explores specific conditions, requirements, and processing considerations that allow geospatial data to be manipulated for problem solving. Meets with GEOG 4343. No degree credit for students with credit in GEOG 4343.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5333 Remote Sensing
Description: Introductory course in remote sensing focusing on digital image processing. Topics include data collection via satellites and unmanned aerial systems (a.k.a. drones), principles of electromagnetic radiation, multispectral, thermal, and light detection and ranging (LIDAR), and field data collection. Discussions focus on environmental applications including: agriculture, natural resource management, climate, geography, and wildlife management. Hands-on exposure to current image processing software. Meets with GEOG 4333. May not be used for degree credit with GEOG 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5343 Advanced Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4343 or GEOG 5323.
Description: Advanced theory and applications of geographic information systems (GIS) applied to resource management problems using both raster and vector data structures. Individual projects, presentations and group discussion sessions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5353 Advanced Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4353 or GEOG 5253.
Description: Advanced theory and applications of geographic information systems (GIS) applied to socioeconomic problems including location allocation, market area determination, network analysis, and analysis of demographic characteristics. Individual projects, presentations and group discussion sessions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5363 Enterprise Geographic Information Systems
Prerequisites: GEOG 4353 or equivalent.
Description: Basic setup and creation of online geodatabases and Internet mapping services as would be used in a large scale GIS operation or enterprise. Geodatabase design and Internet mapservice Web site development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5373 Geographic Information Systems in Public Health
Prerequisites: GEOG 4203 or instructor permission.
Description: This course introduces the applications of GIS and spatial analysis in exploring and analyzing geospatial health datasets. The course focuses on preparing, organizing, and mapping health datasets, detecting disease clusters, measuring and optimizing health services, and applying spatial statistical models to various public health applications, such as infectious disease, environmental health, health service access, and health disparities. Students will learn how to acquire spatial data, visualize geographic trends, and formulate hypotheses for health applications. May not be used for degree credit with GEOG 4373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5383 Geospatial Programming with Python and AI Tools
Prerequisites: GEOG 4203 or GEOG 5103
Description: This course is designed for students with limited coding experience who are interested in learning Python to explore geospatial data. It introduces basic programming concepts, with emphasis on Python scripting to automate geoprocessing tasks in ArcGIS Pro. It also covers open-source Python packages such as Pandas, GeoPandas, and Matplotlib for processing and visualizing spatial data. As AI gains popularity, the course introduces various AI tools, including ChatGPT and GitHub Copilot, to enhance students' geospatial programming skills. May not be used for degree credit with GEOG 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5393 Remote Sensing of Water Resources
Prerequisites: GEOG 2323 or GEOG 4333.
Description: Advanced theories and techniques of remote sensing applied to various issues in water resources management. Sensor characteristics, theoretical algorithms, digital image processing, and field methods to extract information of multiple aspects valuable for both hydrological modeling and decision-making. Advantages and limitations of remote sensing compared to traditional methods will be explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5403 Current Geographic Research
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Representative survey of current research across the discipline of modern Geography so as to broaden perspectives and appreciation of Geography's breadth and impact. Emphasis on the discipline's major affinity groups, their notable institutions and individuals, and their impact toward the greater good. Exercises familiarize students with the process of developing a thesis or dissertation proposal, from determining an area of emphasis, identifying a research problem, conducting a literature review, and developing and defending a thesis or dissertation proposal.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5413 History and Philosophy of Geography
Prerequisites: Graduate standing in geography or consent of the instructor.
Description: Study of the making of geography as an academic discipline, and the evolution of geographic thought and practice. A critical inquiry into the production of geographic knowledge as it has changed over time and in relation to developments in science and society. Discussions examine significant theoretical and methodological "turns" and explore the influences of key individuals, institutions, and major debates.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5423 Geographic Renderings in Qualitative Methods
Prerequisites: SCFD 5913 or SCFD 6123 or SOC 5273 or consent of instructor.
Description: Seminar engages with geographic facets in qualitative research and provides students with experience in collecting and working with qualitative data. Students explore avenues of qualitative inquiry in cross-cultural, community participation, and storytelling/testimonial/oral history/life history, and ethnographic research with special consideration to space, place, scale, context, body, and senses. Course addresses issues involved with analysis, interpretation, and "writing-up" research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5450 Seminar in Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Specialized topics in Geography. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5453 Black Geographies & Memorialization in the Landscape
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. May not be used for degree credit with AFAM 4453, AMST 4453, or GEOG 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5503 Applications of the Global Positioning System in Field Research
Description: Theory and applications of the Global Positioning System (GPS), focusing on accuracy issues in field data collection and integration with geographic information systems (GIS). Use of both recreation and mapping grade receivers. May not be used for degree credit with GEOG 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5510 Research Problems in Geography
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5663 Web GIS: Trends, Principles, and Applications
Prerequisites: GEOG 4203 or instructor permission.
Description: Web GIS has immense applicability to business, health, economics, transportation, and more. This course is designed to increase students' knowledge of Web GIS and cutting-edge GIS skills. It introduces basic Web GIS concepts, principles, techniques, including web mapping applications. In addition, this course offers essential web programming skills to build customized online maps. May not be used for degree credit with GEOG 4663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5700 Geography Study Abroad
Description: Participation in an international experience sponsored by the Department of Geography. Study Abroad courses typically involve the study of a country or region to provide an integrated understanding, through research and personal experience, of relevant cultural, historical, political, economic, and environmental issues. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5940 Graduate Cooperative Education Internship
Prerequisites: Consent of departmental internship coordinator and graduate committee.
Description: Practical experience in applying geographical concepts and tools to business or governmental problems. Emphasis on educational aspects of applying discipline-related tools to real-world problems. Credit not available for regular employment positions; must have fixed start/end dates. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6000 Doctoral Dissertation Research
Prerequisites: Admission to candidacy and consent of major professor.
Description: Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6013 Seminar in Quaternary Paleoecology
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Analysis and discussion of various aspects of research on the Quaternary period, emphasizing the roles played by climate, geomorphic processes, vegetation, soil and fauna.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6110 Seminar in Cultural and Political Ecology
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Study of the relationship between culture and environment and competing theories of human-environment interactions. Traces the roots of cultural ecology starting with classic ecological systems and adaptation theory, to criticisms leading to the development of "political" and "hybrid" ecologies. Course focuses on Marxist influences, inequalities of third world development, gender and resource management, social and environmental movements, indigenous knowledge, natural disasters and environmental vulnerability. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6120 Seminar in Urban Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Analysis of research on urban systems, internal morphology, urban problems and urban spatial behavior. Review and analysis of student research efforts. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6130 Seminar in Political Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Theoretical foundations of political geography from MacKinder and Hartshorne to recent writings by Smith, Anderson and other modern theorists. Nationalism, national identity, state formation and cohesion considered in a spatial context. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6180 Seminar in Transportation Geography
Prerequisites: Graduate standing.
Description: Examination of transportation systems, emphasizing their effects on trade, land use, location issues, and development. Review of trends, problems, and methods related to transport issues. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6210 Seminar in Historical Geography
Prerequisites: Graduate standing.
Description: This seminar explores historical geographic research concerning places and environments, the dynamics of place, space, and landscape as well as how the past shapes the geographies of the present and the future. It considers methodological practices and theoretical understandings associated with historical geographic scholarship. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6303 Geographic Analysis II
Prerequisites: GEOG 5303.
Description: An advanced course in the application of statistical methods to spatial problems. Focuses on univariate and bivariate spatial autocorrelation, geographically weighted regression (GWR), spatial weighting, and visualization of geostatistical data. Heavy emphasis on current research in geospatial techniques and student research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6313 Mixed Methods in Field Research
Prerequisites: Graduate standing in geography or consent of instructor.
Description: This course will expose students to a variety of qualitative and quantitative techniques useful in successfully designing and completing field research. Special focus will include research and survey design, interviewing, ethnography, and visual techniques such as the use of imagery, photography, sketch mapping, and Global Positioning Systems (GPS) for the collection and analysis of geospatial data. Required field trips.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6333 Advanced Remote Sensing
Prerequisites: GEOG 4333 or GEOG 5333.
Description: Provides in-depth theoretical exploration of advanced remote sensing and image analysis techniques. Special topics include advanced classifications, hyperspectral imagery, and LiDAR. Specific issues surrounding data capture, image processing, and analysis will be discussed to prepare students for semester-long research projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6910 Topics in Geography
Prerequisites: Consent of instructor.
Description: Specialized physical, social and methodological topics in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

Geology (GEOL)

GEOL 1003 The Story of Dinosaurs (N)
Description: This course will explore the validity of arguments and/or conclusion in dinosaur research through evaluating the scientific evidence. In this course, students will read, experiment, and evaluate scientific literature surrounding dinosaurs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 1013 Exploring Earth: An Introduction to Geology (LN)
Description: An introductory course for non-science majors which will investigate how chemical, physical and biological processes interact to shape and regulate the Earth's environment. Will build your understanding of how each part of the Earth system – the ocean, atmosphere and interior – work and interact over time.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1014 Geology and Human Affairs (LN)
Description: The influence of geology and related earth sciences on the human environment. Energy and material resources, beneficial and hazardous natural processes, and the planetary and biological evolution of earth. Lab investigations environmentally oriented. Lab fees required for online section.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1022 Climate Change and Humanity (N)
Description: Focus on the development of scientific inquiry and critical thinking skills needed to evaluate complex relationships among climate, energy production, and the environment. Students will explore causes and consequences of climate change and consider climate change science from alternative perspectives. Same course as GEOG 1022.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 1114 Physical Geology (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher; or an acceptable math placement score or AP credit (see http://placement.okstate.edu).
Description: Composition and structure of the earth and the modification of its surface by internal and external processes. Mineral resources, sources of energy, and environmental aspects of geology. Recommended introductory course for science majors. Field trip required.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1214 Introductory Geological Processes (LN)
Description: This course is intended to introduce geoscience students to geological processes and foundational concepts within the geosciences, primarily through field-based instruction and exercises, as well as introducing students to the geology of Oklahoma. Field trips required.
Credit hours: 4
Contact hours: Lecture: 1 Contact: 4 Other: 3
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1224 Evolution of the Earth (LN)
Prerequisites: High school biology and chemistry recommended.
Description: A survey of the physical and biological history of the Earth from the coalescence of the solar system to the present. Field trips required.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: Geology Field Trip fee of $25 applies.

GEOL 2013 Geology of the National Parks (N)
Description: The geologic characteristics of national parks and scenic regions in North America and throughout the world. Intended for non-majors. Previously offered as GEOL 3043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2030 Geologic Field Experience
Description: One to three weeks of required field study at sites of geological interest and significance. Field trip charges apply. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 2043 Water on Earth
Description: The science of water, including surface water, ground water, water quality, pollution, and legal issues. Interrelations between the sciences and humanities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 2103 Fundamentals of Geophysics
Prerequisites: Minimum grade of "C" in: (GEOL 1014 or GEOL 1114 or GEOL 1214) and (PHYS 1114 or PHYS 2014 or acceptable AP credit).
Description: Course will introduce students to the basic concepts of geophysics. Students will gain theoretical and field experience with multiple geophysical techniques, such as: gravity, magnetic, seismic reflection/refraction, electrical resistivity, induced polarization, self-potential, ground penetrating radar and radiometrics and their applications in oil and gas, minerals, groundwater, and the environment. Field trip required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 2254 Practical Mineralogy
Prerequisites: GEOL 1014 or GEOL 1114 and CHEM 1314 or CHEM 1414 completed with a grade of "C" or higher.
Description: Hand-specimen identification of minerals using physical and chemical properties. Introductory optical identification of common rock forming minerals. Society's utilization of mineral resources. Field trips required. May not be used for degree credit with GEOL 2464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2364 Igneous and Metamorphic Petrology
Prerequisites: GEOL 2254 completed with a grade of "C" or higher.
Description: Origin, occurrence and classification of igneous and metamorphic rocks; hand-specimen and thin section identification. Optional field trip. May not be used for degree credit with GEOL 2464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2403 Chemistry of Earth Systems
Prerequisites: Minimum grade of "C" in (GEOL 1014 or GEOL 1114 or GEOL 1214) and (CHEM 1314 or CHEM 1414).
Description: This course will teach the basics of geochemistry as applied to Earth Systems, including topics and concerns related to the atmosphere, geosphere, biosphere, hydrosphere, and anthroposphere. Basic lab and field skills will also be introduced, including fundamentals of environmental measurement practices, geochemical instrumentation, and basic water and sediment sampling techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2443 Environmental Geology and Human Health (N)
Description: This course explores the connections between human health and environmental geological processes. Key concepts in geology are introduced as well as the pathways through which natural systems affect human health. Topics of interest will include exposures to asbestos, dust and aerosols, coal, and mercury. Course recommended for anyone with an interest in environmental or public health or for those just curious to know more about how the environment affects our health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2464 Rocks and Minerals
Prerequisites: Minimum grade of "C" in (GEOL 1014 or GEOL 1114 or GEOL 1214) and (CHEM 1314 or CHEM 1414 or acceptable AP credit).
Description: Origin, occurrence and classification of igneous, sedimentary and metamorphic rocks and minerals; hand-specimen and thin section identification, including optical microscopy. Field trip required. May not be used for degree credit with GEOL 2254 and GEOL 2364.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2773 Introduction to Planetary Geology (N)
Description: Introduction to the geology of terrestrial planets and moons, exploring volcanism, plate tectonics, atmospheres, and planetary formation, as well as how meteorites and asteroids give insight into the formation of planetary systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2890 Honors Experience in Geology
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Geology to partner concurrently with designated lower-division GEOL course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Honors Credit

GEOL 2990 Special Topics in Earth Science
Description: Selected topics in Geoscience presented in lecture or seminar format. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 3014 Structural Geology
Prerequisites: Minimum grade of "C" in: GEOL 2464 and (PHYS 1114 or PHYS 2014 or acceptable AP credit).
Description: Behavior of earth materials during various deformational processes and analysis of the resulting structural features such as folds, faults and fractures.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: Geology Field Trip fee of $40 applies.

GEOL 3034 Principles of Stratigraphy and Sedimentology
Prerequisites: GEOL 1224 and GEOL 2464 each with a grade of "C" or higher.
Description: Principles of stratigraphy and their applications. Survey of sedimentary rock types, principles of description and classification, origin of sedimentary deposits, analysis of stratigraphic sequences. Topics include depositional systems; litho- and biostratigraphy; geochronology and chronostratigraphy; magnetic, seismic, and sequence stratigraphy; tectonic vs. climatic controls. Field work required. Previously offered as GEOL 3033.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: Geology Field Trip fee of $85 applies.

GEOL 3073 Geomorphology
Prerequisites: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOG 1014.
Description: This course will outline key concepts in geomorphology including how different geological processes have shaped and are shaping the surface of the Earth. Summary of different geomorphological research methods. Discussion on how exogenic processes such water, glacier and wind weathering produce different landscapes. Discussion on how endogenic processes such as volcanism and tectonism contributes to geomorphological changes. Discussion of how geomorphological changes affect the climate. May not be used for degree credit with GEOL 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 3103 Paleontology
Description: Basic principles of paleontology involving invertebrates, vertebrates and plants. Course will explore the mechanisms and manifestations of evolution in the fossil record, learn key aspects of fossilized organism identification, and assess paleontology interpretations through hands-on experiential learning exercises. Field trips required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 3413 Petroleum Geology for Engineers
Prerequisites: CHEM 1314 or CHEM 1414 with a grade of “C” or better.
Description: Examination of the fundamental concepts of petroleum geology with an emphasis on applications to drilling and reservoir engineering. Topics include reservoir architecture, traps and seals, the subsurface environment, wireline logs, geophysics and depositional systems. Field trip required. No degree credit for geology majors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: GEOL Course Field Trip fee of $30 applies.

GEOL 3503 Environmental Geology (N)
Prerequisites: GEOL 1014 or GEOL 1114 or GEOL 1214 or consent of instructor.
Description: Application of geologic principles to environmental issues, including human use of the surface and subsurface of the earth and human interaction with extreme natural events such as earthquakes, floods and landslides. Field trip is required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning
Additional Fees: Geology Field Trip fee of $38 applies.

GEOL 3513 Earthquakes, Volcanoes, and Disasters (N)
Description: An examination of the causes and effects of natural disasters related to earthquakes, volcanic activity, severe weather, flooding and other natural disasters. The course also examines the effects of these natural hazards on societies and approaches to mitigate the associated risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 3546 Field Geology
Prerequisites: Minimum grade of "C" in GEOL 3014 and GEOL 3034.
Description: Five weeks of field methods in geology. Required of all geology majors. Transportation and room and board fees required.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Geology

GEOL 3890 Advanced Honors Experience in Geology
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Geology to partner concurrently with designated upper-division GEOL course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Honors Credit

GEOL 4023 Petroleum Geology
Prerequisites: GEOL 3014 and GEOL 3034.
Description: Origin, migration and accumulation of petroleum, requirements for source rock, reservoir rock and traps. Structure and stratigraphy of selected oil fields. Field trips required. May not be used for degree credit with GEOL 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4030 Geologic Field Investigation
Prerequisites: GEOL 1013, GEOL 1014, GEOL 1114 or GEOL 1224.
Description: One to three weeks of required field study at sites of geological interest and significance. Field trip charges apply. Does not substitute for GEOL 3546. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4103 Introduction to Geophysical Exploration
Prerequisites: MATH 2153 and a "C" or better in PHYS 1214 or PHYS 2114 or acceptable AP credit.
Description: An overview of geophysical methods and their applications to exploration, environmental and engineering problems. Seismic reflection and refraction methods, gravity, magnetic, resistivity and electromagnetic methods. A field trip required. May not be used for degree credit with GEOL 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4113 Seismic Interpretation
Prerequisites: Minimum grade of "C" in (GEOL 2103 or GEOL 4443) and MATH 2153 and (PHYS 1214 or PHYS 2114).
Description: Examination of the reflection seismic interpretation methods with emphasis on the oil and gas industry. Both structural and stratigraphic methods. Hands-on interpretation using a standard industry software package. May not be used for degree credit with GEOL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4213 Plate Tectonics
Prerequisites: GEOL 3014 or concurrent enrollment.
Description: Earth's evolution within the framework of plate tectonics. Examination of structural associations in relation to tectonic plate boundaries. Mechanisms for plate tectonics and implication for resources and the environment. May not be used for degree credit with GEOL 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4300 Geology Colloquium
Prerequisites: Geology majors only.
Description: Discussion of selected topics in the geological sciences with emphasis on professional presentation practices. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4303 Geophysical Field Methods
Prerequisites: GEOL 4103.
Description: Hands-on field investigations using the different geophysical surveying methods including electrical resistivity/induced polarization, self potential, electromagnetic, ground penetrating radar, gravity, magnetic, and seismic reflection and refraction. Instrumentation, field data acquisition, and interpretation will be emphasized. Several field trips and field projects required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4313 Introduction to Well Log Analysis
Prerequisites: GEOL 3034 with a grade of C or better.
Description: Introduction for undergraduate Geology majors to basic properties of wireline well logs that are useful for those interested in the petroleum industry, subsurface environmental issues, ground water and geothermal energy. This course covers use of well logs to identify lithology, influence of borehole fluids, porosity and permeability on well log properties. Some exercises involve concurrent interpretation of well logs and core samples. Course includes lectures, in-class exercises, homework, and exams. No credit for students who have completed GEOL 4323 or GEOL 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4323 Applied Well Log Analysis for Engineers
Prerequisites: GEOL 3413 with a grade of "C" or higher.
Description: This is a core course for the Minor in Petroleum Engineering. Course material builds on information to prerequisite course Geology 3413. This course covers geologic interpretation of reservoir characteristics based on a variety of well logs; quantitative determination of porosity and permeability, reservoir fluids and how they influence well log properties, calculation of water saturation, introduction to unconventional reservoirs, drilling and logging in lateral holes. May not be used for degree credit with GEOL 4313 or GEOL 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4343 Advanced Petrophysics
Prerequisites: Minimum grade of "C" in PHYS 2014.
Description: Provides theoretical background on physical, chemical, and electrical principles involved in routine core analysis (RCA) and special core analysis (SCAL) generic data acquisition, as well as practical experience in applying computational methods to infer petrophysical properties of rocks from RCA and SCAL data. May not be used for degree credit with GEOL 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4403 Environmental Geochemistry
Prerequisites: GEOL 2403 or (GEOL 1014 or GEOL 1114 and CHEM 1515 or concurrent enrollment).
Description: This course is designed to help students comprehend the major chemical components of natural environments and to apply fundamental principles to understand the main controls on the chemistry of pristine and polluted soil, surface, and ground water environments. May not be used for degree credit with GEOL 5403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4423 Groundwater Geochemistry
Prerequisites: Minimum grade of "C" in CHEM 1314 and MATH 2144.
Description: Provides, theoretical background to apply geochemical principles to understand and solve groundwater quality problems, as well as practical experience in applying computational methodologies and tools to predict the response of groundwater systems to natural and anthropogenic disturbances. May not be used for degree credit with GEOL 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4433 Applied Geostatistics
Prerequisites: MATH 2144 with a grade of "C" or higher.
Description: Application of geostatistical principles and tools to solve geology problems associated with the uncertainty and spatial variability of geological data. The focus is on petroleum and hydrological systems. May not be used for degree credit with GEOL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4443 Environmental Geophysics
Prerequisites: A minimum grade of "C" in MATH 2144 and (PHYS 1114 or PHYS 2014 or GEOL 2103).
Description: This course addresses environmental and engineering geophysical applications to geological characterization in (1) groundwater, aquifer delineation and contaminant migration, (2) slope stability and engineering site characterization, (3) detection of abandoned landfills, underground storage tanks, UXO, (4) earthquake, sinkholes, and land subsidence hazards, and/or (5) non-invasive archeological site assessment. Students will gain hands-on experiences in both collecting geophysical data in the field and processing real field data in the lab. Field trips required. May not be used for degree credit with GEOL 5443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4453 Hydrogeology
Description: The water cycle and ground-water systems as well as general problems related to ground-water occurrence, quantity, quality and pollution. Field trip required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4463 Physical Hydrogeology
Prerequisites: Completion of PHYS 1114 or PHYS 2014; GEOL 3503 recommended.
Description: Physical ground-water systems. Realistic problems to acquaint students with ground-water occurrence and movement. Geologic, geophysical, hydraulic testing and modeling techniques used to define an actual ground-water system. Ground-water regulations. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $100 applies.

GEOL 4503 Introduction to Oceanography (N)
Prerequisites: College-level chemistry recommended.
Description: Oceanography is an interdisciplinary field incorporating geology, physics, chemistry, and biology. This class will introduce students to oceanic and sedimentary processes, including plate tectonics, oceanic circulation, seawater chemistry, beaches and coastlines, benthic/pelagic sea life, and environmental concerns. Students will also discuss social, political, and economic topics that relate to the ocean.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 4513 Marine Geology
Prerequisites: Minimum grade of "C" in: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOL 4503.
Description: Comprehensive examination of the geology of the ocean basins. Topics include techniques of data collection and interpretation; shoreline, shelf and deep ocean processes; physical oceanography; origin and distribution of marine sediments; paleoceanography; marine mineral resources; marine tectonics and ocean history. May not be used for degree credit with GEOL 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4543 Introduction to Exploration Seismology
Prerequisites: Minimum grade of "C" or better in (GEOL 2103 or GEOL 4443) and MATH 2153 and (PHYS 1214 or PHYS 2114).
Description: Introduction to theory, techniques, and application of seismic to field of hydrocarbon, groundwater, and minerals exploration. Review of fundamentals of wave propagation, historical development of the science, and current literature on application and instrumentation. May not be used for degree credit with GEOL 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4573 Marine Biogeochemical Cycles
Prerequisites: GEOL 3034 with a grade of "C" or better and GEOL 4403 or concurrent enrollment.
Description: Analysis of the interactions between geological processes, biological activity, and chemical cycling for a range of elements. Limited discussion of atmospheric, terrestrial, and freshwater systems as they impact the oceans will also be discussed. Includes discussions of changes in elemental cycles through Earth's history and comparison to present-day patterns. May not be used for degree credit with GEOL 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4583 Environmental Data Analytics
Prerequisites: Minimum grade of "C" in MATH 2144.
Description: Provides theoretical background and practical experience in extracting meaning from complex and heterogeneous environmental data sources to understand and manage the natural environment (geosphere, hydrosphere, biosphere, and atmosphere). May not be used for degree credit with GEOL 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4613 Magmatism and Metamorphism
Prerequisites: GEOL 2464.
Description: Exploration of the processes and environments in which magmatic and metamorphic rocks form, using aspects of mineralogy, petrology, geochemistry and plate tectonics. Will include lab and field examination of rocks, use of phase diagrams, thermodynamics and geochemical data. Field Trip required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4643 Seismic Data Processing
Prerequisites: MATH 2144 and (PHYS 1114 or PHYS 2014) strongly recommended.
Description: Theoretical background and practical training in the processing of seismic reflection and refraction data for petroleum, environmental, and engineering applications. Hands-on digital data processing using standard industry software. Topics to be covered include digital filtering, statics corrections, velocity analysis, deconvolution, stacking, and migration. May not be used for degree credit with GEOL 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4673 Critical Earth Materials
Prerequisites: GEOL 2464.
Description: The distribution, geological setting and genesis of metalliferous and non-metalliferous mineral deposits of economic value. Factors controlling the formation of these deposits and the linkages with many other geologic processes covered in other courses are explored. Discussion of geopolitical considerations to the exploration and production of critical earth materials.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4753 Volcanology
Prerequisites: GEOL 2464 completed with a grade of "C" or higher.
Description: Examination of volcanic processes, products, and structures on Earth and other terrestrial bodies. Optional field trip. May not be used for degree credit with GEOL 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4773 Planetary Geology (N)
Prerequisites: GEOL 1114 (required) and GEOL 3073 (recommended).
Description: Geology of planets and planetary bodies, including geomorphology, tectonics, geochemistry, and geophysics; perspectives on exploration; and life in the universe.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 4981 Geoscience Internship
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Geoscience-related professional work setting. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4990 Special Problems in Earth Science
Prerequisites: Permission of instructor.
Description: Individually designed study projects involving assigned reading, library work, field work, laboratory work or a combination of these. Field trips may be required. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4993 Senior Honors Thesis
Prerequisites: Permission of instructor.
Description: A guided reading and research program ending with a thesis under direction of a senior faculty member, with a second faculty reader and oral examination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 5000 Master's Thesis
Prerequisites: Approval of graduate committee.
Description: Work toward master's thesis in geology. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5023 Petroleum Geology
Prerequisites: GEOL 3014 and GEOL 3034.
Description: Origin, migration and accumulation of petroleum, requirements for source rock, reservoir rock and traps. Structure and stratigraphy of selected oil fields. Field trips required. May not be used for degree credit with GEOL 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5030 Geologic Field Investigation
Description: One to three weeks of required field study at sites of geological interest and significance. Emphasis will be placed on applicability to graduate research. Field trip charges apply. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5073 Geomorphology
Description: This course will outline key concepts in geomorphology including how different geological processes have shaped and are shaping the surface of the Earth. Summary of different geomorphological research methods. Discussion on how exogenic processes such as water, glacier and wind weathering produce different landscapes. Discussion on how endogenic processes such as volcanism and tectonism contributes to geomorphological changes. Discussion of how geomorphological changes affect the climate. No credit for students with credit in GEOL 3073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5093 Quaternary Geology and Geochronology
Prerequisites: GEOL 3034; MATH 1715 or equivalent; PHYS 2014 and PHYS 2114 or equivalent. All with a grade of "C" or higher.
Description: Examination of the causes and effects of climate change during the ice ages. Survey of dating methods applicable to the Quaternary, including radiocarbon and optical luminescence. Topics include the use of oxygen isotope proxy records, paleomagnetism, cosmogenic nuclides, isostasy and post-glacial rebound, causes of sea-level change, and ice age history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5100 Problems in Hydrogeology
Prerequisites: GEOL 4453.
Description: Advanced problems in hydrogeology with emphasis on quantitative methods. Field trips may be required. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5103 Introduction to Geophysical Exploration
Prerequisites: MATH 2153 and a "C" or better in PHYS 1214 or PHYS 2114 or acceptable AP credit.
Description: An overview of geophysical methods and their applications to exploration, environmental and engineering problems. Seismic reflection and refraction methods, gravity, magnetic, resistivity and electromagnetic methods. Field trip required. May not be used for degree credit with GEOL 4103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5133 Structural Styles in Oil and Gas Exploration
Prerequisites: GEOL 3014 with a grade of "C" or higher.
Description: The theoretical, experimental and descriptive approach to structural styles formed by different tectonic stresses (i.e. extensional, contractional, strike-slip and salt tectonics) and their importance in oil and gas exploration. Course previously offered as GEOL 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5143 Geological Remote Sensing
Prerequisites: GEOL 1013 or GEOL 1114 and PHYS 1114 or PHYS 2014 each with a minimum grade of "C".
Description: Many applications of remote sensing exist for geological and environmental issues, and this course introduces the techniques and processes including digital signal processing, statistical data extraction, image enhancement and classification. Students will experiment with different techniques and formulate a research project that can be answered using the techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5183 Paleontology and Paleoceanographic Reconstruction
Prerequisites: Graduate standing or permission of instructor.
Description: This course examines invertebrates, the process of fossilization, taphonomy, and fossil uses in paleontologic reconstructions and biostratigraphy. Students are instructed and expected to complete various sample preparation techniques used in fossil examination. This course has a lecture and lab component. Students in this course should have a basic understanding of biology and evolution. Major ideas and background information will be provided in this course so anyone interested is welcome.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5213 Seismic Interpretation
Description: Examination of reflection seismic interpretation methods with emphasis on the oil and gas industry. Both structural and stratigraphic methods. Hands-on interpretation using a standard industry software package. Previously offered as GEOL 4203. No credit for students with credit in GEOL 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5223 Advanced Methods in Structural Geology
Prerequisites: GEOL 3014.
Description: Techniques in modern structural geology are changing fast. Students in this course will learn to use cutting-edge techniques in structural analysis to solve problems in the geosciences. At the end of this course, you will have collected structural data using a digital data system, analyzed geodetic data to calculate strain, use data collected from uncrewed aerial vehicles to create digital elevation models and characterize fractures, and conduct traditional fracture analyses from outcrop data. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5233 Trace Element Geochemistry
Prerequisites: One year of chemistry and GEOL 4403 or equivalent and GEOL 3034 or equivalent.
Description: Examination of the behavior of various trace elements in aqueous and sedimentary environments. Availability and mobility of trace elements, characterization of geochemical environments, and application to geologic problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5243 Research Methods and Techniques in Geosciences
Description: Application of the scientific method to geosciences research; introduction to library and internet searches; writing competitive research proposals; managing research activities; and disseminating research results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5253 Petrology and Diagenesis of Clastic Rocks
Prerequisites: GEOL 3034.
Description: Examination of petrology and depositional facies of sandstones and shales. Identification of detrital and diagenetic constituents and determination of paragenetic sequence of diagenetic events. The effect of burial and thermal history on reservoir quality. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5273 Depositional Systems
Prerequisites: GEOL 3034, GEOL 3546.
Description: Examination of the processes within depositional environments and the facies they form. Focus on the environmental interpretation of rocks, cores and seismic profiles based on their composition, texture, character, stacking pattern and sedimentary structures. Emphasis on clastic systems. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5283 Subsurface Geologic Methods
Prerequisites: GEOL 3014, GEOL 3034.
Description: Use of subsurface geologic information from cores and well logs to prepare maps and identify oil and gas prospects. Field trips required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5300 Geology Colloquium
Prerequisites: Graduate standing.
Description: Discussion of selected topics in the geological sciences with emphasis on professional presentation practices. Offered for fixed 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5313 Plate Tectonics
Prerequisites: GEOL 3014 with a grade of "C" or higher.
Description: Study of the Earth's past and present tectonic environments within the framework of plate tectonics. Systematic examination of structural associations in relation to their spatial distributions around and within plate boundaries. Outlining the temporal evolution of the crust. Discussion on mechanisms for plate tectonics. Implication of plate tectonics in terms of resources and the environment. May not be used for degree credit with GEOL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5333 Applied Geostatistics
Prerequisites: MATH 2144 with a grade of "C" or higher.
Description: Application of geostatistical principles and tools to solve geology problems associated with the uncertainty and spatial variability of geological data. The focus is on petroleum and hydrological systems. May not be used for degree credit with GEOL 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5343 Advanced Petrophysics
Prerequisites: Minimum grade of "C" in PHYS 2014.
Description: Provides theoretical background on physical, chemical, and electrical principles involved in routine core analysis (RCA) and special core analysis (SCAL) generic data acquisition, as well as practical experience in applying computational methods to infer petrophysical properties of rocks from RCA and SCAL data. May not be used for degree credit with GEOL 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5353 Advanced Well Log Analysis
Prerequisites: GEOL 3034 or consent of instructor.
Description: This course is for geology graduate students interested in the petroleum and environmental industries, geothermal energy and evaluating the subsurface environment using wireline logs. This course will focus on the geologic interpretation of a variety of well logs, as well as quantitative methods to determine porosity and permeability in aquifers and reservoirs, how reservoir fluids influence well log properties, calculating water saturation, and an introduction to unconventional reservoirs. Graduate students are given advanced homework exercises including interpretation of structure, selection of best logging technique, mineral identification, and fractured rock identification. Some exercises involve concurrent interpretation of well logs and core samples. No credit for students with credit in GEOL 4313 or GEOL 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5363 Carbonate Depositional Systems
Prerequisites: GEOL 3034 with a grade of "C" or higher.
Description: Survey course of the main types of carbonate sediments and depositional environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Consummable Material fee of $35 and Geology Field Trip fee of $242 apply.

GEOL 5383 Sequence Stratigraphy
Prerequisites: GEOL 3034.
Description: Principles of sequence stratigraphy including carbonate and siliciclastic dominated intracratonic basins. Integration of surface and subsurface data in projects. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $90 applies.

GEOL 5393 Stratigraphy of the Midcontinent
Prerequisites: GEOL 3034 with a grade of "C" or higher.
Description: This course will examine Paleozoic stratigraphy of the North American Midcontinent consisting of Texas, Oklahoma, Kansas, Nebraska, Missouri, and northwestern Arkansas. The course will consist of lectures, student presentations, and extensive field work that will serve to familiarize the students with the surface and subsurface relationships of geologic formation and their potential for commercial exploitation for oil and gas resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5403 Environmental Geochemistry
Prerequisites: Graduate Standing required.
Description: This course is designed to help students comprehend the major chemical components of natural environments and to apply fundamental principles to understand the main controls on the chemistry of pristine and polluted soil, surface, and ground water environments. May not be used for degree credit with GEOL 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5413 Applied Petroleum Geology for Engineers
Description: This course introduces graduate level engineering students to the fundamental concepts of geologic science with emphasis on application to reservoir evaluation, drilling and production of hydrocarbon accumulation. Weekly labs provide hands-on exercises of techniques used for reservoir evaluation. A term project allows graduate students to synthesize concepts from lectures and techniques learned in lab, to evaluate the economic potential of an oil field and prepare a professional presentation. May not be used for degree credit with GEOL 3413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5423 Groundwater Geochemistry
Prerequisites: CHEM 1314 and MATH 2144.
Description: Provides, theoretical background to apply geochemical principles to understand and solve groundwater quality problems, as well as practical experience in applying computational methodologies and tools to predict the response of groundwater systems to natural and anthropogenic disturbances. May not be used for degree credit with GEOL 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5433 Isotope Geochemistry
Description: Introduction to the basic principles of stable isotope geochemistry. Study of the production, distribution, and use of naturally occurring and anthropogenically introduced stable isotopes in the earth's near surface environment with applications to hydrology, biogeochemistry, global change and petroleum systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5443 Environmental Geophysics
Description: This course addresses environmental and engineering geophysical applications to geological characterization in (1`) groundwater, aquifer delineation and contaminant migration, (2) slope stability and engineering site characterization, (3) detection of abandoned landfills, underground storage tanks, UXO, (4) earthquake, sinkholes, and land subsidence hazards, and/or (5) non-invasive archeological site assessment. Students will gain hands-on experiences in both collecting geophysical data in the field and processing real field data in the lab. Field trips required. May not be used for degree credit with GEOL 4443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5453 Groundwater Modeling
Prerequisites: GEOL 4453 or equivalent, MATH 2144, MATH 2153 each with a grade of "C" or higher.
Description: Modeling ground water systems. Realistic problems to acquaint students with the movement of geological fluids. Developing models of fluid movement through the subsurface using geological and geophysical data. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5463 Physical Hydrogeology
Prerequisites: GEOL 4453 or equivalent with a grade of C or better; PHYS 2114 with a grade of C or better.
Description: Physical ground-water systems. Realistic problems to acquaint students with ground-water occurrence and movement. Geologic, geophysical, hydraulic testing and modeling techniques used to define an actual ground-water system. Ground-water regulations. Field trips required. May not be used for degree credit with GEOL 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5483 Petroleum Water Management
Prerequisites: Minimum grade of "C" in GEOL 4453 and MATH 2153, or consent of instructor.
Description: Developing, maintaining, and disposing or recycling water for use in the petroleum industry. Problems associated with water production and disposal including water quality issues and seismicity. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5513 Marine Geology
Prerequisites: Minimum grade of "C" in: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOL 4503.
Description: Comprehensive examination of the geology of the ocean basins. Topics include: techniques of data collection and interpretation; shoreline, shelf and deep ocean processes; physical oceanography; origin and distribution of marine sediments; paleoceanography; marine mineral resources; marine tectonics and ocean history. Same course as GEOL 4513. May not be used for degree credit with GEOL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5523 Environmental Organic Geochemistry
Prerequisites: CHEM 1314 and 1515 or equivalent; GEOL 3034 or equivalent; GEOL 4403 or equivalent or permission of instructor.
Description: Introduction to some environmental aspects of organic geochemistry. Soils and sediments as pollutant receptors, sources of pollutants and selected aspects of environmental health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5533 Organic Geochemistry
Description: Introduction and broad overview of the biogeochemistry of organic compounds in geological systems, including sediments, water, and paleoenvironments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5543 Introduction to Exploration Seismology
Description: Introduction to theory, techniques, and application of seismic to field of hydrocarbon, groundwater, and minerals exploration. Review of fundamentals of wave propagation, historical development of the science, and current literature on application and instrumentation. No credit for students with credit in GEOL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5573 Marine Biogeochemical Cycles
Prerequisites: GEOL 1224 and GEOL 4403 and CHEM 1314.
Description: Analysis of the interactions between geological processes, biological activity, and chemical cycling for a range of elements. Limited discussion of atmospheric, terrestrial, and freshwater systems as they impact the oceans will also be discussed. Includes discussions of changes in elemental cycles through Earth's history and comparison to present-day patterns. No credit for credit in GEOL 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5583 Environmental Data Analytics
Prerequisites: Minimum grade of "C" in MATH 2144.
Description: Provides theoretical and practical experience in extracting meaning from complex and heterogeneous environmental data sources to understand and manage the natural environment (geosphere, hydrosphere, biosphere, and atmosphere). May not be used for degree credit with GEOL 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5603 Basin Evolution
Prerequisites: GEOL 3014, GEOL 3034, GEOL 4403.
Description: Advanced topics in sedimentary basin studies, including tectonics, sequence stratigraphy, facies analysis, regional diagenesis, thermal evolution, regional hydrogeology, and distribution of natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5633 Exploration Prospect Evaluation
Prerequisites: Graduate standing and permission of the instructor.
Description: Evaluation of exploration prospects in frontier and underdeveloped petroleum provinces using borehole-derived and geophysical data. Team taught course that uses industry provided datasets and current data management and interpretation software to reach drill or no-drill decisions based on science, risk analysis and economics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5643 Seismic Data Processing
Prerequisites: Consent of instructor.
Description: Theoretical background and practical training in the processing of seismic reflection and refraction data for petroleum, environmental, and engineering applications. Hands-on digital data processing using standard industry software. Topics to be covered include digital filtering, statics corrections, velocity analysis, deconvolution, stacking, and migration. May not be used for degree credit with GEOL 4643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5753 Volcanology
Prerequisites: GEOL 2464 or equivalent with a grade of "C" or higher.
Description: Examination of volcanic processes, products, and structures on Earth and other terrestrial bodies. Optional field trip. No credit for students with credit in GEOL 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $378 applies.

GEOL 5773 Planetary Geology
Prerequisites: GEOL 1114, and GEOL 3073 recommended.
Description: Geology of planets and planetary bodies, including geomorphology, tectonics, geochemistry and geophysics; perspectives on exploration; and life in the universe. Course previously offered as GEOL 4773.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5803 Fundamentals of Carbon Capture and Geologic Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the fundamentals of carbon capture and storage and includes and introduction and summary of storage and capture technology, the CO2 sources that are suited to this technology, and economic and policy drivers. The course considers the full spectrum of geological opportunities for CO2 storage and CO2-enhanced oil and gas recovery, as well as basic operational design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5813 Multiphase Flow and Transport of CO2 in Subsurface
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers several aspects of CO2 transport in the subsurface and evaluates the safe storage of CO2 plumes. It explores in detail the challenges of geological storage. Topics to be covered include, but are not limited to plume migration, leakage risk, CO2 dissolution into the aqueous phase, capillary-entrapped CO2, and potential for in-situ CO2 mineralization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5823 Fundamentals of Water-Rock-CO2 Interactions
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the fundamentals of water-rock-CO2 interactions and will provide a combination of theoretical background, numerical modeling, and case studies from several pilot and commercial projects. The course will highlight the challenges of data collection from the field and from available datasets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5833 Geomechanics and Seismicity in Geological Carbon Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the scientific fundamentals of seismology and geomechanics for a broad understanding of induced seismicity. Course covers a broad background on the fundamentals of geophysics and geology, specifically how stress in the earth interacts with faults and fractures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5843 4D Dynamic Reservoir Characterization
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course will utilize case studies to introduce participants to the art of interpreting time-lapse (4-D) multicomponent (9-C) seismic in terms of dynamic changes in rock properties. The modeling and interpretation techniques taught in this course can be applied to any porous subsurface system where fluid injection or extraction processes cause changes in the elastic subsurface rock properties. Knowledge gained can be transferred to examine systems such as carbon storage, geothermal, wastewater disposal, and heavy oil extraction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5853 Social, Legal, and Regulatory Context for Carbon Capture and Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course will provide an overview of the social, legal, and regulatory context for participants to navigate aspects of carbon capture and storage (CCS) and energy transition projects. Using case histories, guest speakers, and experiential learning, this course introduces participants to the landscape in which project developers, regulators, policymakers, and industry providers will be expected to operate in to engage in Energy Transition projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5863 3D Seismic Exploration
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: Students will learn how to use principles of seismic stratigraphy, seismic geomorphology, structural geology, and rock physics to interpret seismic reflection data and associated attributes to delineate faults, fractures, folds, fluvial-deltaic complexes, turbidites, mass transport complexes, karst, and other structural and stratigraphic features of interest. Course is intended for graduate students in geosciences or petroleum engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5883 Risk Analysis in Conventional and Unconventional Reservoirs
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: The course will review several conventional and recent unconventional discoveries with an emphasis on the technical geologic and engineering variables. The geologic emphasis of each play will focus on basin development, petroleum systems, super-basin concepts, and as analogs for future exploration and development in these and other innovations. Economic, financial, and oil & gas industry portfolio evaluation will be introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5893 Evolution of Sandstone Reservoirs
Prerequisites: GEOL 3034 and 3014.
Description: Sandstones and sands form major oil and gas reservoirs and critical aquifers. This course examines coarser siliciclastic bodies and follows their evolution from sediment to rock. Topics investigated include depositional settings and environments, distribution and geometry of sand bodies and the role of biotic activity and diagenesis in enhancing or reducing reservoir quality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5981 Geoscience Internship
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Geoscience-related professional work setting for graduate credit. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5990 Advanced Studies in Geology
Prerequisites: Consent of instructor.
Description: Individual library, laboratory and/or field projects on facets of geology not covered by existing courses. Field trips may be required. Course previously offered as GEOL 5710. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 6000 Doctoral Dissertation Research
Description: Work toward doctoral dissertation in Geology. Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 6103 Gravity and Magnetic Methods
Prerequisites: GEOL 4103.
Description: Principles of gravity and magnetic methods applied to petroleum, mineral, and groundwater exploration. Engineering applications will also be discussed. Data acquisition, processing and modeling using standard industry software will be emphasized.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6133 Unconventional Petroleum Reservoirs
Prerequisites: GEOL 4023.
Description: Review of unconventional sources of oil and gas production including coalbed methane, tight gas-sandstones, gas and oil-bearing shales and transition zone, high-water saturation sandstones and carbonates.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6213 Plate Tectonics
Description: Earth's evolution within the framework of plate tectonics. Examination of structural associations in relation to tectonic plate boundaries. Mechanisms for place tectonics and implication for resources and the environment. May not be used for degree credit with GEOL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6283 Geology of Shales
Prerequisites: Graduate standing or permission of instructor.
Description: Team-taught course that combines different geological techniques towards gaining a better understanding of shales as source and reservoir rock. These include petrography, XRD, SEM, Organic and Inorganic chemistry, geophysical logs, paleoecology and biostratigraphy. This course will involve lecture as well as laboratory techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6303 Electrical and Electromagnetic Methods
Prerequisites: GEOL 4103.
Description: Principles of the different geoelectrical methods, including electrical resistivity, induced polarization, self potential, electromagnetic, and ground penetrating radar will be emphasized. Geophysical instrumentation, laboratory measurements of physical properties, field procedures, and basic interpretation and near surface geophysical applications will be discussed. Recent advances in geoelectrical methods and case studies will be examined by reviewing current literature. Field trip required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6363 Carbonate Reservoir Characterization
Prerequisites: GEOL 5363 or Admission to the Geoscience PSM or instructor permission.
Description: A review of depositional and diagenetic controls on carbonate reservoir heterogeneity from pore scale to the geometrical attributes at reservoir-scale and how these parameters can be incorporated into the development of viable petrophysically-based reservoir models. In-class readings and exercises are used to reinforce the potential integration of petrophysical, geological and other data sets to provide students with experience in carbonate reservoir characterization for oil and gas, groundwater and CCUS reservoirs. This is a seminar and project-based course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6373 Advanced Carbonate Petrology and Geochemistry
Prerequisites: GEOL 4403 with a grade of "C" or higher and GEOL 5363 with a grade of "B" or higher or equivalents or consent of instructor.
Description: This course will cover advanced topics in carbonate petrology and geochemistry with emphasis on both early and late diagenetic processes, dolomitization, porosity and permeability, geochemical evolution of seawater and carbonate sediments, and regional diagenetic patterns in carbonate rocks and related strata.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6386 Sequence Stratigraphy of Shales
Prerequisites: Graduate standing. Intensive field course focusing on hydrocarbon-bearing shales of the Midcontinent.
Description: Advanced field techniques including high resolution spectral gamma ray analysis and highly detailed measured sections will be taught. Fifty localities including Devonian-Early Mississippian (Woodford and Chattanooga shales), Upper Mississippian (Barnett, Caney, and Fayetteville shales) and Pennsylvanian-Lower Permian shales will be analyzed.
Credit hours: 6
Contact hours: Lecture: 2 Lab: 12 Contact: 14
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6503 Rock Fractures
Description: Mechanical analysis and tectonic implications of brittle structural features such as joins, veins, and faults. Examination of topics such as mechanical stratigraphy in layered rocks, factors controlling joint spacing, and the dependence of failure mode on lithology. Field trips may be required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6553 Contaminant Hydrogeology
Prerequisites: GEOL 4453 or an equivalent.
Description: Contaminant Hydrogeology will evaluate characterization and remediation approaches in a range of geologic settings for common subsurface impacts. Course will cover saline impacts, nonaqueous phase liquids, and emerging contaminants. Course previously offered as GEOL 5553.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

German (GRMN)

GRMN 1713 Elementary German I (F)
Description: Main elements of grammar and pronunciation, with work on the four basic skills of listening comprehension, speaking, reading and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 1813 Elementary German II (F)
Prerequisites: GRMN 1713 or equivalent proficiency.
Description: Continuation of GRMN 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2713 Intermediate German (FG)
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Continuation of GRMN 1813. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 2723 Intermediate German Skills I
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Review and expansion of German listening comprehension, speaking, reading, and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2113. Can be taken concurrently with GRMN 2713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2813 Reading and Conversation II
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Reading/viewing and analysis of prose, drama and poetry, and film for building literary and cultural appreciation. May be taken concurrently with other 2000-level German courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2823 Intermediate German Skills II (G)
Prerequisites: GRMN 2723 or equivalent proficiency.
Description: Continuation of GRMN 2723 with further work in listening comprehension, speaking, reading, and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2222.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 2890 Honors Experience in German
Prerequisites: Honors Program participation and concurrent enrollment in a designated German course.
Description: A supplemental Honors experience in German to partner concurrently with designated German courses. This course adds a different intellectual dimension to the designated courses. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Honors Credit

GRMN 3013 German for Reading Requirements I
Description: Reading in the humanities and the sciences. Translation from German to English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3023 German for Reading Requirements II
Prerequisites: GRMN 3013 or equivalent.
Description: Intermediate and advanced reading in the humanities and sciences. Translation from German to English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3343 Business German
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Business concepts, practices and the expectations of professional life in Germany. Focus on specialized vocabulary and business correspondence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3463 Advanced Diction and Phonetics
Prerequisites: 15 credit hours of German or equivalent proficiency.
Description: German speech sounds and intonation patterns. Practice to improve the student's pronunciation. Required course for teacher certification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3501 Orientation to Internship Abroad
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Preparation for residential internship in a German speaking country. Culture, civilization, and contemporary conditions, and communication for students accepted for international cooperative education program. Previously offered as GRMN 3902.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3502 Internship Abroad
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Practical studies in a German-speaking country. Supervised research papers and reports and oral testing during and following the practicum. Previously offered as GRMN 3903.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3803 Advanced Conversation Skills
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Colloquial speech forms and sentence structure. Practice in brief public address in German.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3813 Advanced Writing Skills
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Practice in original composition in German. Problematic points of German grammar and stylistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4113 German Literature and Culture in Translation (G)
Description: Influential authors, works, and literacy and artistic movements in German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 4153 Survey of German Literature I
Prerequisites: 18 hours of German or equivalent proficiency.
Description: German literature from the beginning to 1785.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4163 Survey of German Literature II
Prerequisites: 18 hours of German or equivalent proficiency.
Description: German literature from 1785 to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4333 Backgrounds of Modern German Civilization
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Historical, cultural, political and literary trends in the formation of German civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4343 Modern Germany
Prerequisites: 18 hours of German or equivalent proficiency.
Description: The major cultural, social and political forces that have shaped the Germany of today. Previously offered as GRMN 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4513 The Age of Goethe
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Principal figures of German Classicism and Romanticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4523 19th Century German Literature and Culture
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Major works and figures in 19th-century literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4533 20th Century German Literature and Culture
Prerequisites: 18 credit hours of German or equivalent proficiency.
Description: Major works and figures in 20th-century literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4543 Contemporary German Literature and Culture
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Major works and figures in contemporary literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4550 Special Topics in German
Prerequisites: 18 credit hours of German or equivalent proficiency.
Description: Reading and discussion of vital subjects in German. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

GRMN 4650 Topics in German
Prerequisites: One 3000-level German course, or equivalent.
Description: In-depth study of a specific aspect of German literature, culture or language.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Gifted and Talented Education (GTED)

GTED 5063 Introduction to Gifted and Talented Education
Description: Concepts, techniques, and strategies for providing differentiated educational programs and experiences for the gifted and talented. State and Federal legislation; development of gifts and talents; program types; identification systems; program development; materials development; teaching techniques and methodologies. Previously offered as EPSY 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5163 Counseling Techniques for Teachers of Gifted and Talented Students
Description: Techniques for dealing with the conflicts experienced by gifted and talented students. Strategies for consulting with teachers, peers, and parents regarding optimal development of gifted. Peer counseling techniques, dealing with self-concept, social and emotional concerns, problem solving and decision making, referral procedures and self-analysis for teachers related to learning and teaching philosophy and style. Previously offered as EPSY 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5363 Differentiating Curriculum for Gifted Learners
Description: Development of curriculum for horizontal and vertical expansion and acceleration. Commercial and teacher prepared materials in imagination; imagery; analogy; metaphor; inductive, deductive and abductive thinking; sciencing; philosophy; logic systems; problem solving; psychology; concept learning; creativity; creative dramatics, etc. Conceptual approaches to the use of the preceding in various interest based and non-interest based curricular formats. Previously offered as EPSY 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5620 Practicum with Exceptional Learners
Description: Supervised individual and group experience with exceptional learners. The particular experience (learning disability, mental retardation, gifted, etc.) is determined by the student's field of specialization. Previously offered as EPSY 5620. Offered for variable credit, 1-6 credit hours, maximum of 8 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

GTED 5763 Teaching Methods and Techniques for Gifted Education
Description: Development of curriculum for horizontal and vertical expansion and acceleration. Commercial and teacher prepared materials in imagination; imagery, analogy, metaphor; inductive, deductive and abductive thinking; sciencing; philosophy; logic systems; problem solving; psychology; concept learning; creativity; creative dramatics, etc. Conceptual approaches to the use of the preceding in various interest based and non-interest based curricular formats. Previously offered as EPSY 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5863 Developing Programs for the Gifted and Talented
Description: Programs based on various philosophies and structural concepts of gifted and talented education, e.g., inclusion, self-contained, pullouts, magnet schools, time blocking, acceleration and enrichment. Programs designed for general and specific academic ability; however, exposure will be provided to creative and productive thinking programs, leadership programs, and visual and performing arts programs. Specific models included. Previously offered as EPSY 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5993 Identification and Behavioral Characteristics of the Gifted and Talented
Description: Cognitive, affective, and behavioral characteristics of the gifted and talented. Selections of tests and interest inventories. Selection and/or developing of nomination/recommendation forms/models, inventories, checklists, rating scales, sociograms as well as data abstraction from cumulative and anecdotal records. Functions of gifted/talented identification committees. Previously offered as EPSY 5993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

Global Health (GLHE)

GLHE 5020 Seminar in Global Health
Description: Selected topics, problems and issues in global health. Same course as HCA 5020. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5030 Problems and Issues in Global Health
Description: In-depth exploration of contemporary problems in global health. Same course as HCA 5030. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5052 Directed Readings in Global Health
Description: Focuses on specific topics of interest and emphasis in health care administration. Topics will be chosen or assigned for focused literature review. Same course as HCA 5052.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5103 Introduction to Global Health
Description: Highlights the chronic, emerging and re-emerging global health issues and examines possible measures to address them. Same course as HCA 5103. May not be used for degree credit with HCA 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5123 Survey of Research and Evaluation in Health Care
Description: Introduces the basic understanding of research and evaluation in healthcare. Students develop an understanding of research projects, including human subject research in both hospital and clinical settings. May not be used for degree credit with HCA 4123. Same course as HCA 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5143 Relief and Development in Global Health
Description: Explores the roles and interaction of intergovernmental and governmental agencies and NGOs involved in global health. Same course as HCA 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5153 International Health Systems
Description: Provides an overview of the differences in global health care systems using a historical and socio-political context making extensive use of country case studies. Same course as HCA 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5173 Emerging Global Infectious Diseases
Description: Develops a realistic approach to addressing emerging global infectious diseases, emphasizing global health implications in the areas of prevention, surveillance, and control. Same course as HCA 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5183 Global Environmental and Occupational Health
Description: Examines environmental health concerns in the context of public health, and the social, economic and other factors that mitigate the effects of environmental hazards or otherwise influence the population. Same course as HCA 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5193 Health Aspects of Disasters
Description: Addresses important thematic areas such as types, phases and effects of disasters on health, public health and medical responses of infectious diseases and pandemics. Same course as HCA 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

GLHE 5273 Understanding Global Burden of Diseases
Description: Provides an overview of methods used for studying the global burden of diseases. Develops an understanding of how to use these methods to assess major trends for future forecasting. Same course as HCA 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

Global Studies (GLST)

GLST 1713 Regions & Nations in Global Context (GS)
Description: A regional approach to the study of human societies and the makeup of nations around the world, with an emphasis on contemporary issues such as climate change, sustainability and other environmental impacts; population and immigration; culture, religion and language; and economic characteristics such as wealth disparities, poverty and education. This course covers many distinct world regions such as Europe, Latin America, the Middle East and Southeast Asia. Same course as GEOG 1713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 2002 Global Sustainability (N)
Description: This course examines questions of sustainability and sustainable development in a global context from environmental, social, and economic perspectives. Emphasis is placed on how different dimensions of sustainability interact, and how those interactions are shaped by regional context in a globalized world. Through discussion of policy and current environmental issues around the world, students will learn to analyze relationships and tradeoffs between humans and their environment. Same course as GEOG 2002.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GLST 2103 Global Perspectives (GS)
Description: Introduces students to the cultural, economic, and political aspects of globalization and global issues. Emphasizes the relationship between tradition and change, the interconnectedness of people, places, and institutions, aspects of social and economic development, and the evolving role of technology in creating and sustaining a globalized world. Also introduces students to possible career options. Same course as GEOG 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3053 Introduction to Central Asia Studies (GS)
Description: A comprehensive view of newly-emerged Central Asian states, examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan as reflected in their thoughts, religion, literature, and architecture in the past, and the strategic importance of their natural wealth for the present and future. Same course as GEOG 3053, HIST 3053, POLS 3053, and RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3113 Global Water Resources: Sustainability & Justice
Description: Water resources are key to the success of societies in all of their various forms. This course introduces students to fundamental concepts of water resources, including the natural processes of the hydrological cycle, management of water resources, and societal threats to sustaining water quantity and quality. Students in this course will develop an awareness and appreciation of the multiple perspectives about water as a precious resource, commodity, and point of justice. Same course as GEOG 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GLST 3713 Exploring North America and Diversity (DS)
Description: This course presents a regional analysis of the United States and Canada, including physical and cultural landscapes, population and migration trends, regional development, natural resources, and U.S.-Canada relations as well as global relations. In addition, it emphasizes diversity in both countries, with special attention to those geographies of under-represented and minority groups in the U.S. Same course as GEOG 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GLST 3723 Europe (GS)
Description: This course examines the cultural, economic, and natural diversity of Europe in relation to globalization, climate change, and popular culture. Basic geographic concepts such as migration, region, and culture will be linked to European current events. Students will learn to properly utilize online sources to understand current European issues and their relationship to other countries and regions around the world. Same course as GEOG 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3733 Russia and Its Neighbors (GS)
Description: A regional survey course of Eurasia extending from Central Europe to Western Siberia. Central and Southwest Asia will not be considered in this course. Thematic contemporary issues in the region will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GEOG 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3743 Latin America (GS)
Description: A regional analysis of physical, cultural and economic features of historic and contemporary Latin America. Key themes include people and environment, development and change, government and conflict, and globalization and social change. Same course as GEOG 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3753 Asia (GS)
Description: A regional survey course of Asia from Pakistan in the west to the Asian littoral in the east, including Japan, Taiwan, and the Philippines. Central and Southwest Asia will not be considered in this course. Regionally, Asia will be approached through examination of two great cultural focal points: India and China. Thematic contemporary issues in Asia will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GEOG 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3763 Africa (GS)
Description: An exploration of the patterns and impact of population, cultural heritage, and natural resources to build an understanding and experience with Africa. Historic and contemporary relationships between Africa and Western civilization. Key themes include traditions and lifeways, development and change, government and conflict, and people and environment. Same course as GEOG 3763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3783 The Middle East (GS)
Description: A regional analysis of the Arab, Persian and Turkic lands that builds an understanding and experience with the Middle East. Historic and contemporary patterns highlight both tradition and modernity. Key themes include lifeways and social change, development and globalization, international relations and conflict, and natural resources and environment. Same course as GEOG 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3793 Australia and the Pacific Realm (GS)
Description: Study of Australia, New Zealand, and the island regions of Micronesia, Melanesia, and Polynesia. Course examines the cultural and natural diversity of these regions in relation to globalization, climate change, and popular culture. Course covers enduring cultural traditions, legacies of external involvement, changing livelihoods and landscapes, and the region's role in global affairs. Same course as GEOG 3793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 4443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 4443 and HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GLST 4513 Senior Capstone Experience
Prerequisites: Consent of the instructor and advisor.
Description: Designed specifically for Global Studies majors. Reviews key literature, relates coursework in the major to career plans, and culminates in a research project. Students design and execute a research project and give an oral presentation based on their project and experience.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

Global Studies (GS)

GS 2013 UN Sustainable Development Goals (G)
Description: This course examines current issues and problems facing the globe and introduces students to the historical, geopolitical and cultural aspects surrounding these issues. The course is structured around the UN Sustainable Development Goals (UN SDGs), which are a universal call to action that unite the world in addressing some of the world's most complex issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Global Studies
General Education and other Course Attributes: International Dimension

GS 4020 Independent Study
Prerequisites: Instructor Permission.
Description: Directed study in student's area of interest. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours. Previously offered as INTL 4020.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 4070 Special Topics in International Studies
Description: Selected topics in Global Studies. Course content varies by semester. Possible course topics include, International Business and Trade, Public Diplomacy, International Communications, International Development and Leadership, Global Crisis Response and Management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. May not be used for degree credit with GS 5070.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Global Studies

GS 4110 Internship in Global Studies
Prerequisites: Instructor Permission.
Description: Internship in Global Studies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours. Previously offered as INTL 4110.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 4200 Study Abroad
Prerequisites: Consent of instructor and consent of SGSP Director of Academic Programs.
Description: Academic work abroad on either a group or individual basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 4200. May not be offered for degree credit with GS 5200.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5000 Master's Thesis
Prerequisites: Graduate standing and consent of advisor.
Description: For students studying for a master's degree in global studies under the thesis option. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5013 Contemporary Issues in Global Studies
Prerequisites: Enrollment in MS program in Global Studies or enrollment in an OSU graduate program and consent of instructor.
Description: Examination of major transnational issues and associated problems of international cooperation, including ethnic conflicts, environmental degradation, global standards for human rights, and economic globalization. Previously offered as INTL 5010 and INTL 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5020 Independent Study
Prerequisites: Consent of supervising faculty member.
Description: Readings and directed study in student's focus area. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5020.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies
Additional Fees: Study Abroad fee of $200 applies.

GS 5043 Politics of the Global Economy
Prerequisites: Graduate standing.
Description: Theory and practice of international political economics. The patterns and associations between political and market-based processes among nation states. Emphasis on interactions among advanced industrial states, transnational phenomena, and opportunities and pitfalls in north-south relations. Same course as POLS 4043. Previously offered as INTL 5213 and INTL 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5070 Special Topics in Global Studies
Prerequisites: Graduate standing.
Description: Selected topics in Global Studies. Course content varies by semester. Possible course topics include, International Business and Trade, Public Diplomacy, International Communications, International Development and Leadership, Global Crisis Response and Management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. May not be used for degree credit with GS 4070.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5100 Research in Global Studies
Prerequisites: Graduate standing.
Description: Individually supervised research on topic within the student's focus area for the Global Studies Program. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5100.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5110 Internship in Global Studies
Prerequisites: Graduate standing and consent of Director.
Description: Individually supervised internships in international career areas. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5110.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5133 Research Design and Methods for Global Studies
Prerequisites: Graduate standing.
Description: This course is designed to provide graduate students with training in how to design and complete an independent research project in Global Studies. This includes formulation of a research question or topic, conducting a literature review, planning the logistics of research, writing in a scholarly fashion, and seeking to publish the results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5200 Study Abroad
Prerequisites: Graduate standing, consent of instructor, and consent of SGSP Director of Academic Programs.
Description: Academic work abroad on either a group or individual basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5200. May not be offered for degree credit with GS 4200.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies
Additional Fees: Study Abroad fee of $200 applies.

GS 5213 Global Trade Economics
Prerequisites: Honors College participation.
Description: This course presents an introduction to economic issues from a global perspective for the non-specialist. It emphasizes the problems and challenges the process of globalization poses to national economies. The first part of the course presents the main theories of international trade and their relevance to explaining current global trade patterns. The second part of the course examines the foreign exchange markets. It covers various international financial issues such as global current account imbalances, the role of the dollar in international financial markets and trade finance. Same course as ECON 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5223 Culture, History and World Systems
Prerequisites: Graduate standing.
Description: Study of the impact and influence of culture and history on the development of contemporary world systems with future projections. Same course as SOC 5223. Previously offered as INTL 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5233 Global Competitive Environment
Description: Development of a global business strategy for the organization. Issues of highly diversified markets and business environments, global competition, financial markets, and complex organizational relationships. Same course as MKTG 5233. Previously offered as INTL 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5243 Trade and Investment Promotion
Description: The purpose of this course is to help students develop an understanding of the factors and processes that shape global investment and trade promotion policies across all sectors of an economy. The course will delve into how various factors work together to influence a country's attraction as an investment destination and the policies used to retain and sustain foreign investments in host countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5313 Global Communication and Public Diplomacy
Prerequisites: Graduate standing.
Description: Global media organizations have become players in international politics, and in how cultures define themselves. This course will explore a number of intersections of culture, media, and communication, with particular emphasis on the role of media and communication in public diplomacy. By examining the academic and popular literature on global media, international relations, and globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5323 Nation Branding
Prerequisites: Graduate standing.
Description: Nation branding is defined for this course as the strategic act of shaping a country's reputation and country image through the use of branding techniques. This course will explore America's image abroad and attempt to understand the recent rise of anti-Americanism, as well as look at nation branding in other countries. May not be used for degree credit with MC 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5333 Certified Global Business Professional
Description: This course deals with the practicalities of international trade. Topics include finding appropriate partners, international pricing, legal considerations, tax and accounting issues. International marketing and cultural issues are also addressed. The course is designed to prepare students to successfully complete certification as a Global Business Professional (CGBP certification). Previously offered as INTL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5343 Geopolitics of New Media
Prerequisites: Graduate standing.
Description: Examines the geopolitical impact of new media, including satellite television, various digital and internet technologies, and social media by exploring the ways in which the advent and development of new media have shaped larger geopolitical currents. May not be used for degree credit with MC 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5413 Global Development
Prerequisites: Graduate standing.
Description: Examines effective principles and practices of international development and provides a thorough understanding of current issues in development by guiding students to an understanding of how development issues are being approached, what methodologies are effective, and how to use the tools of development. Same course as AGIN 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5443 Refugees & Forced Migration
Description: Millions of people in the world experience forced displacement from their homes due to intersecting factors like armed conflict, natural disasters, and persecution due to race, religion, nationality — among other threats to their safety and well-being. in this interdisciplinary and cross-regional course, students examine the intersecting legal, political, social, economic, and cultural dimensions of forced migration from the second half of the 20th century to today. Particular attention Is paid to the experiences of refugees, as well as to legal and policy approaches, humanitarian responses, and media and cultural representations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5513 Global Crisis Management
Prerequisites: Graduate standing.
Description: Provides graduate introduction to Global Crisis Management. Students will learn about topics ranging from emergency management, disaster management to crisis management on the global stage. This includes examining the global system for dealing with disasters and crises that cross international borders, and the agencies and organizations that respond.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5523 Transnational Criminal Organizations and the War on Drugs
Description: This course will offer an analysis of transnational organized crime and its impact on societies around the world. It will focus on drug trafficking, human trafficking, and arms dealing. It will also examine policy responses and their effectiveness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5533 Complex Emergencies
Prerequisites: Graduate standing.
Description: This course examines complex emergencies from an emergency management perspective. We will look at the collapse of governance, the causes of armed conflict, food insecurity, infectious disease, natural disasters, and so on, and examine specific cases in detail. Furthermore, we will look at how the international community responds to these crises, and which agencies are involved in relief efforts. We will apply the traditional four phases of disaster management to these situations. This course is the same as FEMP 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5543 International Dimensions of Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Examines disasters in an international context as well as the theory and practice of international disaster management. This course is the same as FEMP 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5553 Global Poverty and Inequality
Description: In this course, we will examine the root causes of poverty and inequality on a global scale. We will look at the micro-level, examining coping strategies of the poorest, as well as at the macro level, examining both rich and poor economies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

Graduate (GRAD)

GRAD 5082 ITA Training - Oral Proficiency
Description: This course provides International Teaching Assistants (ITAs) with tools to identify features of spoken English that facilitate effective classroom communication and employ these features in their own spoken English, as well as other strategies to compensate for linguistic challenges. Students who receive a score of no pass on the ITA Exam must enroll in GRAD 5082. Individuals scoring 21 or below on the speaking section of the TOEFL iBT, or 6.5 or below on the speaking portion of the IELTS may also consider enrolling in GRAD 5082 to prepare for the ITA Exam. Previously offered as GRAD 5981.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

GRAD 5092 ITA Training - Language in the American Classroom
Prerequisites: Graduate standing.
Description: This course provides International Teaching Assistants (ITAs) with linguistic, interactional, and compensatory tools (e.g. visual aids, body language) for effective language use and presentation in the American classroom. This course focuses especially on the linguistic expectations of the American classroom and on field-specific linguistic practices. Individuals who are assigned to instructional duties and who receive a provisional pass on the ITA Exam must enroll in GRAD 5092. Previously offered as GRAD 5991.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

GRAD 5193 Preparing Publishable Manuscripts
Prerequisites: Students must have completed a minimum of 12 graduate-level credit hours.
Description: Preparing Publishable Thesis Chapters is intended for graduate students with original data collected, analyzed, and ready to report in refereed journals. Consideration of best practices for preparing manuscripts for submission or publication will be augmented with guidance that students will receive from their mentors. Themes of the class include commonalities and differences in research writing conventions among academic disciplines, gatekeepers' expectations about research submitted for publication, practical strategies for increasing the likelihood of favorable reviews from journal editors, and the contemporary roles of theses and dissertations. Students will be provided with a framework for research writing and publishing that they can further employ to advance within their fields of scholarship.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Graduate College

GRAD 5880 Graduate Traveling Scholar
Prerequisites: Consent of instructor.
Description: Credit will vary depending on the program of each traveling scholar. Enrollment of graduate traveling scholars in academic or research courses. Offered for variable credit, 1-24 credit hours, maximum of 24 credit hours.
Credit hours: 1-24
Contact hours: Contact: 1-24 Other: 1-24
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

GRAD 5891 Special Topics in Grantmanship
Prerequisites: Doctoral students only or instructor permission.
Description: Special topics on grantsmanship from a multi/interdisciplinary perspective to develop grant writing skills, funding opportunity identification and selection; planning a grant proposal; organization and development of proposal components; proposal reviewing. Previously offered as GRAD 5890.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

GRAD 5990 Special Problems in Graduate Education
Prerequisites: Graduate standing, permission of instructor.
Description: Special problems course with variable content. Topics relevant to graduate education and interdisciplinary studies. Taken with instructor permission only. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

GRAD 6001 Graduate Research Inspired Seminar Experience
Description: Development of skills for presenting interdisciplinary biomedical research to a broad audience, culminating with students giving a formal seminar.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

GRAD 6010 Research or Intern Practicum
Prerequisites: Graduate standing.
Description: Graduate-level internship program for public administration, service or research. Blends the theoretical and absolute phase of the academic with practical on-the-job experience. Offered for variable credit, 1-9 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

GRAD 6233 Laboratory in Microscopy
Prerequisites: Graduate standing and consent of instructor.
Description: Students learn sample preparation, theory, and operation of several instruments at the OSU Microscopy facility. Each student chooses online modules to complete for different instruments with differentiation for different sample and research types. Each module includes laboratory work with the instruments under supervision of Microscopy Facility staff. Previously offered as CBSC 6233 and VBSC 6233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Graduate College

GRAD 6913 College Teaching Apprenticeship
Prerequisites: GRAD 5992 and enrollment in College Teaching Certificate program; EPSY 5463 or EPSY 6613; EDLE 6713 or EDLE 6583. Other EPSY/EDLE courses may be approved by Coordinator of program.
Description: Faculty member mentors doctoral student in instructing a university-level course.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Graduate College

GRAD 6921 College Teaching Practicum
Prerequisites: GRAD 6913.
Description: Student acts as instructor of record for an undergraduate course under the mentorship of a faculty member appropriate to the course taught.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Graduate College

Greek (GREK)

GREK 1713 Elementary Classical Greek I (F)
Description: Grammar and vocabulary of ancient Greek. Previously offered as GREK 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 1813 Elementary Classical Greek II (F)
Prerequisites: GREK 1713 or equivalent proficiency.
Description: A continuation of GREK 1713. Grammar and readings of classical Greek authors. Previously offered as GREK 1223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 2713 Elementary Classical Greek III (F)
Prerequisites: GREK 1813 or equivalent proficiency.
Description: A continuation of GREK 1813. Grammar and readings of classical Greek authors. Previously offered as GREK 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 2813 Intermediate Readings
Prerequisites: GREK 2713 or equivalent proficiency.
Description: An introduction to a variety of classical authors to increase reading facility and grammatical comprehension. Previously offered as GREK 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 3330 Advanced Readings
Prerequisites: GREK 2813 or equivalent proficiency.
Description: Prose authors, epic poetry, drama, Koine Greek and religious texts. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

Health (HLTH)

HLTH 2213 Introduction to Public Health
Description: Introduction to the field of public health focusing on health principles, theories, career opportunities and a field experience. Previously offered as HHP 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 2323 Drugs and Society
Description: Impact of recreational use of drugs on society. Topics will include stimulant, depressant, and hallucinogenic recreational drugs, ergogenic substances and current research regarding addiction. Particular focus will be given to current trends of substance use and abuse. Cannot be substituted for HLTH 3913. Previously offered as HHP 2323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 2603 Total Wellness (S)
Description: Overview of individual, interpersonal, and sociocultural issues that have an impact on health. Behavioral decision-making, social relations, cultural diversity and environmental sensitivity. Previously offered as HHP 2603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Society & Human Behavior

HLTH 3010 Health Workshop
Description: Concentrated study of special topic(s) related to health not currently covered in the available undergraduate curriculum. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 3113 Health Issues in Diverse Populations (D)
Description: The purpose of the course is to introduce concepts of health disparities, and equity for diverse populations across a range of health topics. The course will also introduce the students to community based solutions to health issues for diverse populations in an effort to promote inclusivity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

HLTH 3201 Health in Special Populations (D)
Description: Exploration and analysis of the influence of variables like race, ethnicity, gender, sexual orientation, and/or disability on various health outcomes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

HLTH 3211 International Comparative Health (G)
Description: Global comparisons of disease, immunity and infection. Includes an exploration of the complex interaction between geopolitical systems, resource access, conflict zones, inequality and health from an international perspective.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: International Dimension

HLTH 3343 Public Health Policy
Description: Public health policy from a health in all policies perspective and a systems-thinking framework for understanding the social and political aspects in the United States. Systematic thinking about state and national public health policy and developing skills for policy health advocacy. Focus on key features of the current U.S. health care and political system, and political and socio-economic concepts central to health policy debates. Will provide students with practice in critically evaluating pressing public health policy problems. Previously offered as HLTH 3351.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3511 Peer Health Education I
Prerequisites: Approval of instructor.
Description: Comprehensive analysis and application of the theory and practice of peer education principles, designed to educate and provide experiences in preparation for planning and/or participation in integral university or community peer education programs.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3512 Peer Health Education II
Prerequisites: Successful completion of HHP 3511 and approval of instructor.
Description: Comprehensive analysis and application of the theory and practice of peer education principles, designed to education and provide experiences in preparation for planning and/or participation in integral university or community peer education programs.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 3603 Understanding HIV (DS)
Description: Examines the HIV global epidemic from historical, political, epidemiological, biological, medical, psychological, legal, and ethical perspectives. Previously offered as HHP 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity, Society & Human Behavior

HLTH 3613 Community Health
Description: A survey of issues impacting the health of populations from a community health perspective. Previously offered as HHP 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3623 School Health Programs
Prerequisites: HLTH 2603.
Description: The identity and relationships of school health instruction, services and environments. Previously offered as HHP 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3643 Health Behavior Theory
Description: Survey of biopsychosocial behavioral models to determine basis for health risk behaviors, with emphasis on determinants of health/risk behavior and exploring health behavior theories across age, sex, ethnicity, culture and socio-economic status. Same course as HHP 4503. Previously offered as HHP 3643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3673 Physical Activity and Public Health
Description: The course helps students gain an appreciation for the importance of integration of physical activity and public health. The techniques used to measure physical activity, the effects of physical activity on health, and strategies for physical activity promotion are the main content areas of this course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3723 Principles of Epidemiology
Description: Survey of epidemiological principles as they relate to the planning of both community and consumer-focused health promotion and disease prevention programs. Same course as HHP 4633. Previously offered as HHP 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3733 Disability and Health
Description: The course explores the many conceptions of disability in the United States and the psychosocial, health, and wellness impacts on deaf and disabled communities. Students will analyze disparities in deaf and disabled communities using a social determinants of health model, with an emphasis on public health, healthcare, education, and political systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3913 Substance Use & Public Health
Description: Introduction to the field of health education and health promotion focusing on health principles, theories, career opportunities, and a field experience. Same course as HHP 4033. Previously offered as HHP 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3923 Social Determinants of Health and Public Health Equity
Description: This course focuses on the social and economic conditions under which people live that affect their health. We will explore how social determinants of health such as health care cost, access, and quality, economic stability, education access and quality, neighborhood and built environment, and social and community context influence the health of populations. We will also examine the role of public policy in shaping health outcomes for communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4010 Directed Study in Health
Description: Course is an independent study of health issues and trends through readings, research, and/or analysis. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4233 Health and Sexuality (DS)
Description: The study of human sexuality as it relates to the health and well-being of individuals in the community, college, school or worksite settings. Previously offered as HHP 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity, Society & Human Behavior

HLTH 4313 Public Health Communication
Description: Provides a broad overview and deep exploration into the evolving body of relevant health communication research, theory, and practice, examining the powerful influences of communication on the promotion of public health. Examines the evolving use of new digital communication technologies in health communication interventions and the implications of these new technologies for designing future health communication campaigns. Students will have a broad understanding of major areas of study in health communication and specialized knowledge in an area of interest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4533 Psychosocial Issues in Public Health
Description: Psychosocial issues as they relate to the practice of public health. Personal and professional applications of the course material will be emphasized. Previously offered as HHP 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4770 Internship in Public Health: Exercise and Health (Athletic Training)
Prerequisites: Last semester; and Senior standing with cumulative 2.75 GPA; current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students going in to the Master of Athletic Training 3/2 Program. Offered on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4783 Public Health and Aging
Description: An in-depth study of physiological aspects, special health concerns, chronic illnesses and services as applied to gerontology. Previously offered as HHP 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4880 Internship in Public Health: Public Health
Prerequisites: Last semester and Senior standing with cumulative GPA 2.75 and current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students in the Public Health option. Previously offered as HHP 4880. Offered on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4903 Pre-Internship Seminar
Prerequisites: Last semester prior to internship and consent of instructor.
Description: Capstone course for the public health program. Preparation for the health internship experience. Previously offered as HHP and HLTH 4902.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4973 Program Design in Public Health
Description: A survey of program design principles, including theoretical foundations, planning, marketing, delivering and evaluating. Previously offered as HHP 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4990 Internship in Public Health: Exercise and Health
Prerequisites: Last semester and senior standing with cumulative GPA 2.75 and current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students in the Exercise and Health option. Previously offered as HHP 4990. Graded on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5000 Thesis Research
Description: Independent research required of candidates for master's degree. Credit awarded upon completion of thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5010 Health Promotion Seminar
Description: Selected topics from the health promotion profession not covered in other courses. Presentation and critique of research proposals and results. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5020 Health Promotion Workshop
Description: Workshop in selected areas of health promotion. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5030 Field Experiences in Health Promotion
Description: Individual investigations and analysis of issues in health promotion. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5113 Psychological Aspects of Health
Description: Examination of the interactions of biological, psychological, social, and spiritual factors as they impact human health and disease. Previously offered as HHP 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5133 Environmental Health
Description: Examination of health issues, etiology of disease, and control and prevention of major environmental health problems in industrialized and developing countries. Same course as MPH 5133. Previously offered as HHP 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5233 Sexuality and Health
Description: The study of human sexuality as it relates to the health and well-being of individuals in the community, college, school, and worksite settings. Particular emphasis will be on examining, developing, or modifying new programming related to sexuality and health. Previously offered as HHP 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5323 General Epidemiology
Description: Examination of epidemiological theory and its methodological application to public health. Same course as MPH 5323. Previously offered as HHP 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5453 Cultural Issues In Health
Description: Examination of ways in which culture affects health and health care including perceptions of health, disease, treatments, and the values associated with these factors. The need for cultural sensitivity in health care is emphasized. Same course as MPH 5453. Previously offered as HHP 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5653 Foundations of Public Health Education and Promotion
Description: Exploration of key concepts, philosophies, ethical principles, historical events, theories/models, and responsibilities and competencies of public health promotion. Same course as MPH 5653. Previously offered as HHP 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5683 Health Behavior Theory and Practice for Public Health
Description: Theories and concepts of health behavior change and exploration of the application of theories to public health programs. Same course as MPH 5683. Previously offered as HHP 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5973 Designing Public Health Programs
Description: Application of program design principles, including needs assessment, theoretical application, program planning and marketing. Same course as MPH 5973. Previously offered as HHP 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5983 Implementation and Evaluation of Public Health Programs
Description: Application of program implementation and evaluation, including evaluation design. Same course as MPH 5983. Previously offered as HHP 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-15 credit hours, maximum of 27 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 6010 Independent Study in Health Promotion
Description: Supervised readings, research or independent study of trends and issues related to the areas of health promotion. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 6020 Research Colloquium in Health Promotion
Description: Topics-based graduate colloquium that explores selected topics and research in the areas of health promotion. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

Health and Human Performance (HHP)

HHP 1703 Introduction to Exercise Science
Description: An introductory course of the general history, theories, principles, nature and scope of Exercise Science. This includes foundations and sub-disciplines, an understanding of essential skills, and career opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1753 Introduction to Physical Education
Description: The nature, scope and significance of physical education. Historical and philosophical foundations, major sub-disciplines and their interrelationships, and career opportunities. Previously offered as PE 1753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1823 Pedagogy of Non-Traditional Activities, Rhythm, and Movement
Prerequisites: HHP and RMRT majors and minors only.
Description: Introduction of activities typically taught to supplement individual or team sports in addition to basic fundamentals and methods of movement skills for rhythms including social, creative, developmental, and multicultural dance and activities. Content includes teaching strategies, assessments, skills analysis, skill components, concepts, terms, safety issues, selection of developmentally appropriate activities, and scope and sequencing of skill components by grade level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1843 Pedagogy of Individual Activities
Prerequisites: HHP and RMRT majors and minors only.
Description: Introduction of activities typically taught as individual sports and activities. Teaching strategies, skill components, terms, safety issues, and selection of developmentally appropriate individual activities, scope and sequencing of skill components, assessment, lesson structure, and writing performance objectives. Previously offered as HHP 1842.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2222 Introduction to Health Aspects of Gerontology
Description: An introductory course of the physical and physiological aspects of aging combined with common pathology and intervention.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2553 Basic Athletic Injury Management
Prerequisites: HHP 2654.
Description: Identification of emergency medical situations and application of basic care for injury occurring in school and athletic setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2602 First Aid
Description: A competency- and performance-based first aid course. Course previously offered as HLTH 2602.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2654 Applied Anatomy
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Action and location of individual muscles and muscle groups. Anatomy as applied to a living person. Common anatomical injuries and diseases will be presented with each joint structure. Lab sections will be structured around specific content area for students' discipline. Course previously offered as HHP 2653 and HLTH 2653.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 2802 Medical Terminology for the Health Professions
Description: Basic knowledge and understanding of medical language and terminology used in allied health and health professions.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3010 Health and Human Performance Workshop
Description: Concentrated study of selected areas of health and human performance, including problems in instruction and administration not usually addressed in the undergraduate curriculum. Course previously offered as HPEL 3010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 3114 Physiology of Exercise
Prerequisites: MATH 1513.
Description: A study of the various bodily systems, including major organs and tissues, and how they respond to acute and chronic exercise of varying intensity, duration and frequency. Course previously offered as PE 3114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3123 Principles of Personal Training
Description: To develop an understanding of the basic skills and competencies in personal training and evaluation and prepare for the National Strength and Conditioning Association (NSCA) personal trainer certification exam. A detailed study of personal training inclusive of musculoskeletal and cardiorespiratory anatomy, resistance training, aerobic exercises, nutrition, health appraisal, fitness testing, flexibility, and plyometric training. The role of the personal trainer will also be addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3133 Ergogenic Aids for Sports and Human Performance
Description: To develop an understanding of the safety, efficacy, and efficiency of various nutritional, pharmacological, physiological, or psychological aids in improving health and human performance within active populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3233 General Medical Concepts
Prerequisites: HHP 2654, HHP 2664, and ZOOL 3204, CHEM 1314, HHP 3673.
Description: Specific pathologies, medical conditions, and possible avenues for treatment of non-orthopedic conditions. Based in current medical research, theory and practical outcomes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3333 Ethics in Sports Administration and Coaching
Description: Exploration of the ethical, legal, and professional dilemmas that occur in athletic administration and coaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3433 Early Laboratory Clinical Experiences in Physical Education
Prerequisites: HHP 1753 or consent of the instructor.
Description: The initial pre-professional clinical experience for schools, kindergarten through grade twelve, with primary duties including assisting in physical education classes. Required for full admission to Professional Education. Graded on a pass-fail basis. Previously offered as HHP 3431.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3443 Psychosocial Aspects of Sport and Coaching
Description: Examination of the psychological aspects of sport that impact the performances of coaches and athletes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3553 Theory and Practice of Coaching
Description: The purpose of the course is to introduce and analyze the essential concepts and knowledge concerned with coaching in sports and related areas. This course provides a platform from which deeper knowledge in specific sub disciplines can be acquired through class specialization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3663 Biomechanics
Prerequisites: HHP 2654.
Description: The study of anatomical mechanical phenomena underlying human motion. Application of biomechanical concepts to a wide variety of exercise, fundamental movement, sport and physical activity. Course previously offered as PE 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3753 Methods in Teaching Elementary Physical Education
Prerequisites: HHP 1753, and HHP 1843, and HHP 3433.
Description: Instructional styles, implementation of behavioral goals and objectives through unit and lesson preparation, teaching methods and classroom management. Course previously offered as PE 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3773 Methods in Teaching Secondary Physical Education
Prerequisites: HHP 1753, and HHP 1843, and HHP 3433.
Description: Instructional styles, implementation of behavioral goals and objectives through unit and lesson preparation, teaching methods and classroom management. Course previously offered as PE 3773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3883 Coaching Internship
Description: Experience working with individual athletes, teams, coaches, and others in a practical setting.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 3924 Therapeutic Exercise
Prerequisites: HHP 3802.
Description: Scientific methods used in therapeutic exercise and rehabilitation of injuries. Investigation of mechanisms of injury, anatomical structures involved and methodological approach in designing rehabilitative programs. Course previously offered as HHP 3923, HHP 4923, and HLTH 4922.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3933 Tactical Strength and Conditioning
Prerequisites: Exercise Science major, or consent of instructor
Description: Theoretical and practical knowledge necessary to design safe and effective strength and conditioning programs for improving human performance for the Tactical Athlete (i.e., law enforcement, firefighters, and military personnel). Emphasis will be placed on the fundamental principles underlying the prescription of aerobic and anaerobic fitness and performance regimes to enhance occupational performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3993 Building and Sustaining a Successful Sports Program
Description: Students learn skills and knowledge necessary to build a successful and sustainable sports program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4010 Directed Study
Prerequisites: Written approval by department head.
Description: Supervised readings, research or independent study of trends and issues related to the area of health, physical education or leisure services. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4013 Motor Control and Learning
Prerequisites: BIOL 3204 or HHP 3114 or HHP 4064
Description: An in-depth study of the neural control of movement, motor learning and performance. Particular emphasis will be placed on the neural and physiological basis of human movement, motor learning theory, and the development of motor abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4064 Neuroanatomy
Description: Comprehensive overview of the normal structure and function of the nervous system and its divisions under conditions of normal health as well as disease. Designed for neuroscientists, pre-medical, and health professions students. An introduction to clinically-oriented neurological assessment will be provided. Previously offered as HHP 4063.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4083 Physiology of Aging
Description: This course will focus on how key physiological systems, such as musculoskeletal, neuromuscular, and sensory organs, develop and function throughout different phases of the human lifespan. Additionally, pathophysiologies associated with physical performance and age-related declines of these systems will be discussed at length.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4093 Physiology of Oxygen Transport with Exercise
Description: To provide students with a foundation of pulmonary and cardiovascular adjustments responsible for oxygen transport during acute exercise in humans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4124 Principles of Strength and Conditioning
Description: Designing and implementing safe and effective strength training and conditioning programs and apply exercise prescription principles for training, injury prevention, and reconditioning. This course is also designed to prepare students for the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) exam. Previously offered as HHP 4123.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4243 Research Methods in Athletic Training
Prerequisites: STAT 2013.
Description: Interactive study of importance and process of conducting ethical research in athletic training and the healthcare professions. Emphasis placed on research design, ethics, collection of data, and the dissemination of results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4443 International Perspectives of Coaching
Prerequisites: Permission of the Instructor.
Description: Students will acquire experiential coaching opportunities in an international environment, and will design and deliver coaching across a variety of sports and across multiple age groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4451 Athletic Training Practicum V
Prerequisites: Successful completion of HHP 3461.
Description: Directed observation in supervised advanced laboratory and clinical experiences in athletic training.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4461 Athletic Training Practicum VI
Prerequisites: Successful completion of HHP 3233, HHP 4451.
Description: Directed observation in supervised advanced laboratory and clinical experiences in athletic training.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4480 Internship in Health and Human Performance
Prerequisites: Last semester senior standing with cumulative GPA of 2.50.
Description: Supervised experience in school (physical education and health), community worksite or athletic training settings in order to qualify or prepare for appropriate teaching and professional certification. Course previously offered as PE 4480. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4643 School Health and Safety for Physical Educators
Description: Health and safety content for which physical educators are held responsible.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4723 Assessment in Physical Education
Prerequisites: Full admission to professional education.
Description: Evaluation techniques commonly used by physical educators and health professionals to measure knowledge, attitudes, sport skill proficiency and physical fitness. Course previously offered as PE 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4733 Organization, Administration and Curriculum in Physical Education and Athletics
Prerequisites: HHP 3753, HHP 3773 or concurrent enrollment; full admission to professional education.
Description: Curricular design and management of physical education (P-12) and athletic programs. Course previously offered as PE 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4773 Principles of Exercise Testing and Prescription
Prerequisites: HHP 3114.
Description: Study of principles of exercise testing including submaximal and maximal tests, exercise and basic electrocardiography, and guidelines for recommending exercise as related to health promotion and exercise science. Course previously offered as HLTH 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4793 Adapted Physical Education
Prerequisites: HHP 3753, HHP 3773, full admission to Professional Education.
Description: Cognitive and psychomotor characteristics of disabling conditions, needs and challenges of educating the exceptional learner in the regular physical education program. Course previously offered as PE 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4933 Administration and Organization of Athletic Training Programs
Prerequisites: HHP 4451.
Description: The administration and organization of athletic training programs including planning and implementation, certification procedures, code of professional practice, safety standards and resource management. Course previously offered as HLTH 4933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4960 Internship in AES: Sport and Coaching Science
Prerequisites: HHP 3114 and HHP 3553
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a, hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the intern experience rests on the supervising faculty and the internship supervisor. Graded Pass/Fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4970 Internship AES: Pre-Professional
Prerequisites: HHP 3114 & HHP 4773
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the internship experience rests on the supervising faculty and internship supervisor. Graded pass/fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4980 Internship in AES: Strength and Conditioning
Prerequisites: HHP 3114 & HHP 4124
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a, hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the intern experience rests on the supervising faculty and the internship supervisor. Graded pass/fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5000 Master's Thesis
Description: Independent research required of candidates for master's degree. Credit awarded upon completion of thesis. Course previously offered as HPEL 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5010 Seminar
Description: Selected topics from the profession not covered in other courses. Presentation and critique of research proposals and results. Course previously offered as HPEL 5010. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5020 Health and Human Performance Workshop
Description: Workshop in selected areas of health and human performance. Course previously offered as HPEL 5020. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5030 Field Problems in Health and Human Performance
Description: Individual investigations of issues in the areas of health and human performance. Course previously offered as HPEL 5030. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5033 Advanced Techniques in Orthopedic Assessment
Description: Knowledge in evaluating various upper and lower extremity orthopedic injuries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5053 Research Design in Leisure, Health and Human Performance
Prerequisites: PSYC 5303 or STAT 5013.
Description: Research design with applicability toward leisure, health and human performance. Conceptual understanding of theory, tools and processes involved in designing research. Course previously offered as LEIS 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5064 Neuroanatomy
Description: Comprehensive overview of the normal structure and function of the nervous system and its divisions under conditions of normal health as well as disease. Designed for neuroscientists, pre-medical, and health professions students. An introduction to clinically-oriented neurological assessment will be provided. Previously offered as HHP 5063.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 5073 Psychological Aspects of Sport
Description: Psychological foundations of sport emphasizing performance enhancement by athletes through psychological training techniques. Course previously offered as HPEL 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5083 Physiology of Aging
Description: This course will focus on how key physiological systems, such as musculoskeletal, neuromuscular, and sensory organs, develop and function throughout different phases of the human lifespan. Additionally, pathophysiologies associated with physical performance and age-related declines of these systems will be discussed at length.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5093 Physiology of Oxygen Transport with Exercise
Description: To provide students with a solid foundation of the pulmonary and cardiovascular adjustments responsible for oxygen transport during acute exercise in humans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5523 Current Readings in Health
Description: Contemporary research, literature, projections and views as applied to total health and well-being. Course previously offered as HPEL 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5603 Principles of Performance Enhancement
Prerequisites: HHP 2654, HHP 3114, ZOOL 3204.
Description: Theoretical foundation of specific tenets of exercise and performance enhancement. Upon successful course completion students will be eligible to sit for the National Academy of Sports Medicine (NASM) examination for NASM Performance Enhancement Specialist certification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5703 Principles of Corrective Exercise
Description: A scientific approach to corrective exercise program design and implementation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5733 Motor Learning
Description: Research in psychology and physical education relevant to the understanding of the nature and basis of motor skill learning. Course previously offered as HPEL 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5823 Applied Neuromuscular Physiology
Prerequisites: HHP 2654.
Description: Structure and behavior of the human body, especially as it pertains to movement. Particular emphasis will be placed on neuroanatomy, the muscular system, and the neurophysiological basis of human movement. An introduction to clinical motor-related disorders will also be provided. Course previously offered as HPEL 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5843 Applied Biomechanics
Prerequisites: HHP 5823
Description: Instruction and hands-on experience in the applied techniques to measure human movement and performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
Additional Fees: HPE/CPSY Consummable Mat fee of $10 applies.

HHP 5853 Clin Ex Test & Prescript
Prerequisites: HHP 3114.
Description: An in-depth study of the principles and application of clinical exercise testing including submaximal and maximal tests, oxygen consumption, and electrocardiography. Guidelines to prescribing individualized exercise plans will also be covered. Special attention will be paid to clinical variables and special populations. Course previously offered as HPEL 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
Additional Fees: HPE/CPSY Consummable Mat fee of $15 applies.

HHP 5873 Human Bioenergetics
Prerequisites: HHP 3114.
Description: Human energy production, utilization and storage in response to exercise. Course previously offered as HPEL 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5923 Readings in Neurophysiology
Prerequisites: HHP 5823: Applied Neuromuscular Anatomy and Neurophysiology.
Description: Establishes a foundation in neurophysiology, particularly relating to the neural control of human movement. Developed through examining original research, especially the seminal articles from this field with special emphasis on areas of contention and controversy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 6000 Doctoral Dissertation
Description: Exploration and presentation of selected topics and research in health and human performance. Course previously offered as HPEL 6000. Offered for variable credit, 1-30 credit hours, maximum of 30 credit hours.
Credit hours: 1-30
Contact hours: Contact: 1-30 Other: 1-30
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6010 Independent Study in Health and Human Performance
Prerequisites: Consent of instructor.
Description: Supervised readings, research or independent study of trends and issues related to the areas of health and human performance. Course previously offered as HPEL 6010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6020 Research Colloquium
Description: Exploration and presentation of selected topics and research in health and human performance. Course previously offered as HPEL 6020. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6063 Grant Writing in Kinesiology, Applied Health, and Recreation
Prerequisites: Consent of instructor.
Description: Develop competitive grant writing skills, budget preparation, identification and selection of funding opportunities, and understanding the review and awards process. Course Previously offered as HHP 6060.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 6083 Biomedical Signal Acquisition
Description: Writing custom software for use in a laboratory setting using LabVIEW. Intended for any lab-based science degree programs in which signals are acquired and analyzed, especially BIOMEDICAL SIGNALS. Acquiring data, interfacing with laboratory equipment, and analyzing and organizing data, with self-designed custom software program. No prior computer programming knowledge required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Health Care Administration (HCA)

HCA 4010 Special Topics in Health Care Administration
Description: This course is designed to provide an overview of current issues in health care administration that relate to planning, leadership, legal, ethical and other related topics. May not be used for degree credit with HCA 5010. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4013 Survey of Health Care Administration
Description: Overview of current issues that relate to planning, legal, ethical and other related in topics in health care administration and leadership. May not be used for degree credit with HCA 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4083 The Financial Structure of Health Care Organizations
Description: Overview of the financial structure of the U.S. health care system in health organizations. Provide the non-financial health administrators tools to work effectively with financial professions to achieve organizational goals. May not be used for degree credit with HCA 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4103 Introduction to Global Health
Description: Highlights the chronic, emerging and re-emerging global health issues and examines possible measures to address them. May not be used for degree credit with HCA 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4123 Survey of Research and Evaluation in Health Care
Description: Introduces the basic understanding of research and evaluation in healthcare. Students develop an understanding of research projects, including human subject research projects, including human subject research in both hospital and clinical settings. May not be used for degree credit with HCA 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4133 Health Care Informatics
Description: An introduction to health care informatics to provide insight to the student on history, background, health information management (EMR, EHR), theory, telehealth, patient informatics, bioinformatics, eHealth trends, research, HIPAA, clinical practice guidelines and other relevant topics in health care informatics. May not be used for degree credit with HCA 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4223 Ethics in Healthcare
Description: Evaluates specific in-depth case studies in ethical issues found within the healthcare setting. Presents scenarios for analysis which require appropriate solutions. May not be used for degree credit with HCA 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4263 Patient Safety and Quality Improvement in Health Care
Description: Introduces the fundamentals of patient safety and quality. Examines the evaluation of quality and quality measures while assessing principles of quality improvement. May not be used for degree credit with HCA 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

HCA 4990 Healthcare Administration Internships
Description: An internship serves as a form of experiential learning that integrates knowledge and theory learned in the classroom while providing real-world practical application and skills development in a professional workplace setting (in-person, remote, or hybrid modalities). Internships provide students the opportunity to gain valuable applied experience, develop contacts, explore career fields, and make connections in professional fields. In addition, internships serve as a significant recruiting tool for employers, which is an opportunity for students to show their talents before graduation.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Professional Studies

HCA 5000 Research and Thesis
Prerequisites: Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Description: Serves as the independent research and preparation of the thesis for the MS degree in Health Care Administration. Course includes the study of existing research and methodologies directly related to the individual discipline via computer, literature review, classroom and applied training. Same course as HCA 5010.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Care Administration

HCA 5010 Special Topics in Health Care Administration
Description: This course is designed to provide an overview of current issues in health care administration that relate to planning, leadership, legal, ethical and other related topics. May not be used for degree credit with HCA 4010. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5013 Survey of Health Care Administration
Description: Overview of current issues that related to planning, legal, ethical and other related topics in health care administration and leadership. May not be used for degree credit with HCA 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5020 Seminar in Global Health
Description: Selected topics, problems and issues in global health. Same course as GLHE 5020. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5023 Human Resources in Health Care and Public Administration
Description: Review, discuss and analyze current issues, rules, practices and governance of human resources in health care and public administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5030 Problems and Issues in Global Health
Description: In-depth exploration of contemporary problems in global health. Same course as GLHE 5030. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5033 Legal Issues in Health Care Administration
Description: Explore, discuss and analyze current legal issues and topics that relate to all aspects of the health care profession.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5040 Advanced Issues in Health Care Administration
Description: Special intensive examination of selected topics in health care administration.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5043 Organizational Leadership and Development in Health Care
Description: Teaches leadership development theories, perspectives and skills found within health care organizations. Provides insight on leadership styles, team development, coaching and fostering growth. Prepares leaders for embracing change including globalization, knowledge management and sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5052 Directed Readings in Health Care Administration
Description: Focuses on specific topics of interest and emphasis in health care administration. Topics will be chosen or assigned for focused literature review. Previously offered as HCA 5050. Same course as GLHE 5052.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5063 Health Care Compliance
Description: Introduces general concepts as they relate to health care compliance issues including legal issues, risk assessment, informed consent, credentialing, compliance and ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5073 The Social Structure of Health Care Organizations
Description: Sociology of health care with an understanding of the interconnectedness of financial incentives, social relationships, and health system performance. Examine the role physicians play in the social structure of health care institutions and the changing role of physicians in the health system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5083 The Financial Structure of Health Care Organizations
Description: Overview of the financial structure of the U.S. health care system in health organizations. Provide the non-financial health administrators tools to work effectively with financial professions to achieve organizational goals. May not be used for degree credit with HCA 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5093 Leadership Methods and Styles in Healthcare
Description: Introduces leadership methods, styles and situations that are unique in the health care field. Interprets those styles through specific case studies. Discusses the importance of strategic leadership planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5103 Introduction to Global Health
Description: Highlights the chronic, emerging and re-emerging global health issues and examines possible measures to address them. Same course as GLHE 5103. May not be used for degree credit with HCA 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5113 Entrepreneurship and the Health Sciences
Description: Introduces entrepreneurship as it relates to the health care industry. Includes concepts within the for- and non-profit sectors. Focuses on entrepreneurial competencies of creativity and innovation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5123 Survey of Research and Evaluation in Health Care
Description: Introduces a basic understanding of research and evaluation in healthcare. Students develop an understanding of research projects, including human subject research in both hospital and clinical settings. May not be used for degree credit with HCA 4123. Same course as GLHE 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5133 Health Care Informatics
Description: An introduction to health care informatics to provide insight to the student on history, background, health information management (EMR, EHR), theory, telehealth, patient informatics, bioinformatics, eHealth trends, research, HIPAA, clinical practice guidelines and other relevant topics in health care informatics. May not be used for degree credit with HCA 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5143 Relief and Development in Global Health
Description: Explores the roles and interaction of intergovernmental and governmental agencies and NGOs involved in global health. Same course as GLHE 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5153 International Health Systems
Description: Provides an overview of the differences in global health care systems using a historical and socio-political context making extensive use of country case studies. Same course as GLHE 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5163 Healthcare Accounting and Auditing
Description: Introduces the unique aspects of healthcare accounting and auditing. Presents and discusses various accounting and auditing topics as they relate to healthcare administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5173 Emerging Global Infectious Diseases
Description: Develops a realistic approach to addressing emerging global infectious diseases, emphasizing global health implications in the areas of prevention, surveillance, and control. Same course as GLHE 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5183 Global Environmental and Occupational Health
Description: Examines environmental health concerns in the context of public health, and the social, economic and other factors that mitigate the effects of environmental hazards or otherwise influence the population. Same course as GLHE 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5193 Health Aspects of Disasters
Description: Addresses important thematic areas such as types, phases and effects of disasters on health, public health and medical responses of infectious diseases and pandemics. Same course as GLHE 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5203 Health Impact Assessment
Description: Evaluates the connection between community design and public health by applying evidence to inform decision-making for new policies and plans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5213 Advanced Cases in Healthcare Finance
Description: Evaluates specific in-depth case studies in the financing and operations of different healthcare enterprises. Covers advanced concepts in health care finance that present analysis and judgement scenarios which require appropriate solutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5223 Ethics in Healthcare
Description: Evaluates specific in-depth case studies in ethical issues found within the healthcare setting. Presents scenarios for analysis which require appropriate solutions. May not be used for degree credit with HCA 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5233 Advanced Leadership Methods and Styles in Healthcare
Description: Evaluates specific in-depth leadership styles and methods of different healthcare enterprises. Covers advanced concepts in health care leadership that present analysis and judgement scenarios which require appropriate solutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5263 Patient Safety, Quality Measurement & Improvement
Description: Introduces the fundamentals of patient safety and quality. Examines the evaluation of quality and quality measures while assessing principles of quality improvement. May not be used for degree credit with HCA 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5273 Understanding Global Burden of Diseases
Description: Provides an overview of methods used for studying the global burden of diseases. Develops an understanding of how to use these methods to assess major trends for future forecasting. Same course as GLHE 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5283 Survey of Physician Employment and Practice Management
Description: Provides a comprehensive discussion of various types of physician-related administrative areas including physician recruitment, practice management, licensing, credentialing, contracts, and strategic planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5303 Patient Experience
Prerequisites: Graduate standing.
Description: Provides a comprehensive development of skills in the area of patient experience. Understand the framework of the dimensions of patient-centered, safety, effectiveness, timeliness, efficiency, and equity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5313 Policy Development in Healthcare Administration
Description: Exploration of healthcare policy development from an administrative perspective. Policy development will be studied with regard to both behavioral and social healthcare structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5323 Mental Health Policy Development for Healthcare Administrators
Description: Mental health policy development from an administrative perspective. Policy development will be evaluated with regard to the role of governments and stakeholders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5333 American Indian & Alaska Natives Healthcare
Description: Introduction to American Indian and Alaska Natives health with local, national, and global perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5343 American Indian and Alaska Natives Health Care Policy
Description: Introduction to American Indian and Alaska Natives health policy examining historical, social, political, legal, arid economic factors and values that have influenced the development and implementation of health policy pertaining to American Indian and Alaska Natives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5353 Tribal Sovereignty
Description: Focuses on a historical context of Tribal governance, federal Indian Law and Policy, as welt as contemporary issues of sovereignty confronting Tribes and government.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5363 American Indian and Alaska Native Leadership and Ethics
Description: Provides a detailed overview of the unique leadership and ethical considerations of American Indian and Alaska Natives peoples, specifically in healthcare services.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5373 Administrative Dimensions of American Indian and Alaska Natives Health
Description: Explores the unique role of Indian Health Service to American Indian and Alaska Native populations,
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5383 Tribal Health Cultural Dimensions
Description: Surveys cultural paradigms within tribal health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5393 Healthcare Strategies
Description: Explores strategies within organizational management, leadership, and marketing that positively influence growth and development, specifically within healthcare organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5503 Nursing Leadership in US Healthcare Delivery
Description: Introduces the basic understanding of general topics related to the US healthcare delivery system within any healthcare setting specific to nursing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5513 Administrative Healthcare Nursing Leadership
Description: Introduces the basic understanding of administrative leadership to nurses within any healthcare setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5523 Nursing Leadership in Healthcare Employee Management
Description: Introduces the basic understanding of employee management to nurses within any healthcare setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5533 Nursing Leadership in Healthcare Fiscal Management
Description: Introduces the basic understanding of fiscal management to nurses within any healthcare setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5990 Internship in Health Care Administration
Description: An opportunity for students to work on healthcare administrative, management and operational issues in an organizational setting. From this experience students will gain valuable skills that can be applied in future professional settings. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 5993 Clinical Operations Management
Description: Overview of healthcare delivery systems in the US to understand its challenges and opportunities. An exploration of the various components of clinical operations and its management, to include safety, quality and compliance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6013 Dynamics of Healthcare Markets
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides an overview of healthcare markets in the U.S. identifies and evaluates the response of providers and consumers when changes occur within the system, presenting all views on health care reform.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6023 Practice in Health Care Administration
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: To allow students with aged coursework to demonstrate their proficiency and knowledge in the technical and practice topics within health care administration. The course is designed to refresh students who completed their previous graduate work in a time frame beyond the aged coursework policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6033 Contemporary Topics in Health Care Administration
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: The course starts by introducing you to the history and context of U.S. Health Care. The course will explore the health care delivery system of the United States and the contemporary challenges to that system in delivering health care services.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6043 Theory in Heath Care Administration
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: To allow students with aged coursework to demonstrate their proficiency and knowledge in the theoretical topics within healthcare administration. Covers sixteen modules addressing the theoretical concepts of the core curriculum within the MS HCA program. The course is designed to refresh students who completed their previous graduate work in a time frame beyond the aged coursework policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6053 Advanced Heathcare Law
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides an advanced analysis of the US legal system and a comprehensive development of skills to navigate common legal issues, laws, rules and regulations that affect the healthcare industry including litigation, malpractice, contract law, corporate law, intentional torts, privacy law, patients' and providers' rights and employment law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6113 Healthcare Public Policy
Prerequisites: Students must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides a framework for understanding the social, political and economic dimensions of health policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6123 Advanced Clinical Operations Management
Prerequisites: Students must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Explores various advanced components of clinical operations and management including safety, quality, and compliance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6213 Cases in Healthcare Quality and Process Improvement
Prerequisites: Students must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Explores the quality improvement process in health care or health services research by focusing on the history and evolution of healthcare quality theories and practices. Provides a deep understanding of these processes through case analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6223 Advanced Cases in Healthcare Leadership
Prerequisites: Students must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Analyzes healthcare leadership case studies through observations and experiences found within the literature and references presented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6913 Graduate Seminar-Healthcare Payor Organizations
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides a comprehensive perspective and analysis of healthcare payor organizations. Understand the structure of healthcare markets in the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6923 Graduate Seminar-Graduate Medical Education Programs
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides a comprehensive perspective and analysis of graduate medical education residency programs. Understand the specific techniques for establishing and running a graduate medical education program in both in-patient and out-patient settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6933 Graduate Seminar-Healthcare Organization Development
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides a comprehensive perspective and analysis of strategic planning within top healthcare organizations. Understand the framework of planning through leadership, teamwork, technology, and communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6943 Graduate Seminar in Public Health
Prerequisites: Student must be in the Doctorate in Health Care Administration (DHA) program to enroll in this course.
Description: Provides a broad understanding of public health and engagement with diverse groups of people; working collaboratively with diverse communities and constituencies to advance public health goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

HCA 6990 Graduate Seminar in Global Health
Description: Graduate Seminars in Global Health will provide students with foundational knowledge of global health's historical contributions; key terms and concepts; system organization; and the social, behavioral, environmental, and biological factors that contribute to specific individual and global health outcomes and the application and integration of concepts to understand and prevent global health problems. Maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

Hebrew (HBRW)

HBRW 1713 Elementary Biblical Hebrew I (F)
Description: This course is designed for students who wish to attain a basic facility with the language of the Hebrew Bible. This course will prioritize reading comprehension over other aspects of linguistic and philological skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

HBRW 1813 Elementary Biblical Hebrew II (F)
Prerequisites: HBRW 1713
Description: This course is designed for students who wish to attain a basic facility with the language of the Hebrew Bible. This course will prioritize reading comprehension over other aspects of linguistic and philological skills. The method employed will consist of a mix of deductive and inductive language acquisition, although this second semester will gradually include more inductive acquisition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

HBRW 2713 Intermediate Biblical Hebrew I (F)
Prerequisites: HBRW 1813
Description: This course is designed to deepen one's facility and understanding of the Hebrew language. It will entail a blended approach using both an inductive method: reading and re-reading Hebrew texts themselves (mostly from Samuel), and a deductive component of discussing structural and linguistic elements of the language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Higher Education & Student Affairs (HESA)

HESA 1113 Orientation in Student Athletics
Description: To assist students to better understand and comply with the academic and athletic demands on student-athletes at a NCAA Division I university, including NCAA compliance issues. Previously offered as SDEV 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 1512 President's Leadership Council I
Prerequisites: Selection to President's Leadership Council.
Description: Ethical leadership concepts, theories, and competencies, introduced through the study of leadership, civic engagement, and ethics. May not be used for degree credit with HESA 3013.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 1521 President's Leadership Council II
Prerequisites: Selection to President's Leadership Council.
Description: Observe, analyze, and participate in leadership experiences and civic engagement activities. May not be used for degree credit with HESA 3013.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 2191 Residential Learning: Philosophies for Student Success
Description: Examines leadership and builds personal competencies using the lens of personal identity combined with the three-pillar student affairs philosophy of student leadership, community living, and student learning.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 2513 Foundations of Ethical Leadership
Prerequisites: 24 hours in good standing; admission into the UGLC or consent of instructor.
Description: Introduces students to a variety of theoretical views of ethics and leadership studies through the identification of contemporary ethical challenges and the development of foundational leadership skills to meet those challenges. Same course as EPSY 2513. Previously offered as EDLE 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3013 Leadership Concepts
Prerequisites: 12 hours completed course work.
Description: Increases undergraduate student competence through the study of leadership concepts. Stresses communications, decision-making, leadership styles and theories and group dynamics. Attempts integration of theoretical concept with reality of application within the university community. Previously offered as SDEV 3013 and ABSE 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3091 Student Development Theory for Orientation Leaders
Prerequisites: Consent of instructor.
Description: Theories of student development. Topics include helping skills, student leadership community building, communication skills, and multicultural sensitivity. Application of theory to university orientation programs. Previously offered as SDEV 3091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3092 Student Development Training for Resident Assistant
Description: Theories of student development. Topics include helping skills, community building, communication skills, and multicultural sensitivity. Application of theory to living groups. Previously offered as SDEV 3092 and ABSE 3092.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3113 Civic Leadership
Prerequisites: HESA 3013 or permission from instructor; and HESA 2513.
Description: Exploration of opportunities for citizens to act as leaders in the community where they live and work. Identifying/practicing leadership skills, habits and dispositions useful in working with local non-governmental organizations, municipal employees and elected officials to solve public problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3613 International Perspectives on Ethics and Leadership
Description: Faculty-led international travel course focused on applying leadership and ethics theories in culturally diverse environments. Each class travels to a different international destination and includes the history of the region. Requires pre-trip and post-trip meetings and assignments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3910 Current Issues in Leadership
Description: Problems, trends, contemporary topics, and pertinent issues in leadership and/or student leadership development. Students will undertake concentrated study in selected areas. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4173 Careers in Higher Education and Student Affairs
Description: Introduces individuals to careers in the higher education and student affairs profession. Topics include historical understandings of American higher education and the emergence of student affairs, theories of college student development, and potential careers in higher education and student affairs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4513 Ethical Leadership for the Common Good
Prerequisites: HESA 2513 or EPSY 2513.
Description: Builds on foundational knowledge of ethical theory and leadership studies through application of ethical theory and leadership skills to specific contexts and evaluation of their results. Same course as EPSY 4503. Previously offered as EDLE 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4910 Leadership in Practice
Prerequisites: HESA 2513 or HESA 3013.
Description: The art and practice of leadership in community settings. Typically taking in the final year of coursework in the undergraduate minor in Leadership. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 5113 Civic Leadership and Community Engagement
Description: Focuses on the role of community-oriented people and institutions as leaders in their communities. Entities receiving particular attention include education, public health and health care, and non-governmental agencies/organizations working to make their communities more equitable.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5173 Introduction to Student Affairs
Description: History, philosophy, and goals of student affairs units in colleges and universities; emphasis on practitioner roles and responsibilities. Previously offered as SDEV 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5213 Student Development Theory
Description: Examination of theories describing patterns of growth and development during the college years. Implications for the design of education practice on the college campus. Previously offered as SDEV 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5223 Career Development for College Students
Description: In-depth exploration of issues and contemporary theory related to the topic of career development for college students. Previously offered as SDEV 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5233 Advanced Student Development Theory
Prerequisites: HESA 5213.
Description: Focus is on contemporary and emerging theories of traditionally aged college student development from cognitive, spiritual, gender, racial identity, and student success families. Previously offered as SDEV 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5320 Seminar in Student Development
Prerequisites: Consent of instructor.
Description: In-depth exploration of contemporary problems in student development and student affairs administration. Previously offered as SDEV 5320. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5333 Introduction to Hidden Student Populations
Description: Introduction and exploration of hidden student populations across the secondary and postsecondary systems. Consideration of theory, research, and related practitioner concepts, as well as leadership and policy considerations. Previously offered as SDEV 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5340 Hidden Student Populations
Prerequisites: HESA 5333.
Description: Collection of six-week, one-hour courses, each of which provides in-depth study of a selected hidden student population. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5343 Assessment Techniques for Higher Education and Student Affairs Professionals
Description: General orientation to assessment for professionals in higher education and student affairs. Applied assessment concepts and practices in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5433 Practicum in Hidden Student Populations
Prerequisites: HESA 5333 and admission to the graduate certificate in hidden student populations.
Description: Practicum opportunities serving hidden student population(s) under supervision of, or concert with, college or university service units and/or other appropriate on- and off-campus settings. Course is the culminating experience in the graduate certificate in hidden student populations. Previously offered as SDEV 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5463 Legal Issues in Student Affairs
Prerequisites: HESA 5173 or HESA 6173.
Description: Legal issues confronted by entry-level student affairs practitioners, how to recognize these issues, and how to act within the parameters of the law. Previously offered as SDEV 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5653 Research to Practice in Higher Education and Student Affairs
Description: Addresses the research-to-practice-to-research cycle for higher education professionals. Focuses on developing skills and knowledge for understanding, critiquing, and applying research to practice, as well as the role of practitioners in identifying additional areas of needed research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5720 HESA Creative Component
Prerequisites: Instructor approval.
Description: For approved students to complete the creative component. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 5733 Environmental Theory and Student Affairs
Prerequisites: Consent of instructor.
Description: Examination of campus environmental theory providing an understanding of campus environments approach to student affairs practice. Previously offered as SDEV 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5813 Leadership and Development of Higher Education Organizations
Description: Leadership theory and development of higher education institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5903 Capstone in Higher Education and Student Affairs
Description: Refine analytical frameworks and hone skills for responding to administrative challenges and opportunities in U.S. institutions of higher education. The course also provides an accountability structure to complete the creative component and professional portfolio requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5953 Organizational Development for Higher Education
Description: Scholar-practitioner approaches to understanding and developing higher education organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5973 Foundations of Higher Education
Description: Overview of the historical background and philosophical foundations of American higher education. Previously offered as EDLE 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5983 Administrative Issues in Higher Education
Description: Overview of the organization and administration operations and analyses of social, political and legal influences on colleges and universities. Previously offered as EDLE 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Required of all candidates for doctorate in Educational Leadership and Policy Studies. Offered for variable credit, 1-9 credit hours, maximum of 15 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6123 College Student Sexuality
Description: Exploration of historical and contemporary knowledge in the areas of college student sexuality, postsecondary sexual health education, gender diverse identities, and sexual identity development. Consideration of the construction of collegiate identities over time, and examination of how institutions of higher learning have influenced, regulated, or intersected with student sexualities, identities, and education throughout history and into present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6163 International Issues in Higher Education
Description: Examines current international issues in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6173 Administrative Issues in Student Affairs
Description: Develops an understanding of the history, philosophy, student life, critical issues and administration of student personnel work in higher education. Previously offered as SDEV 6173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6213 The Diverse College Student, Paradigms and Practice
Prerequisites: Admission to doctoral program or instructor permission.
Description: Contemporary and emerging theories and models of development for students of diverse characteristics and backgrounds as foundations for research-to-practice related student-facing programs and services. Previously offered as SDEV 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6233 Critical Issues in Higher Education and Student Affairs
Description: Issues that have shaped and are shaping the practice of higher education and student affairs administration in American society. Previously offered as EDLE 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6243 Internship in Higher Education and Student Affairs I
Prerequisites: Consent of instructor.
Description: Work and study opportunities under supervision in higher education and student affairs functional areas and/or college or university administrative units, and other appropriate work settings. Previously offered as HESA 6220.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6253 Internship in Higher Education and Student Affairs II
Prerequisites: Consent of instructor and HESA 6243.
Description: Work and study opportunities under supervision in higher education and student affairs functional areas and/or college or university administrative units, and other appropriate work settings. This course represents a second internship that follows HESA 6243.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6463 Higher Education Law
Description: National and state constitutional provisions, laws, and court cases concerning higher education. Considerable legal research required. Previously offered as EDLE 6463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6553 Current Issues in Higher Education Policy
Description: Policy development, advocacy, and impact related to emerging issues and directives as they relate to higher education institutions and the students and communities they serve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6573 Institutional Research and Policy Analysis
Description: Introduction to the processes and procedures of institutional research and policy analysis, as they are utilized within the context of American higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6583 The Impact of College on Students and Society
Description: The psychological and sociological impact that attending four-year colleges and universities has on undergraduates from their freshman year until they graduate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6603 Organizational Theory and Administration of the Higher Education Organization
Description: Selected theories in organizational structure, culture, politics and complexity. Functions and principles of administering higher education organizations considering internal, external and contemporary forces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6683 The U.S. Two-Year/Community College
Description: The U.S. two-year/community college including historical and philosophical development, contemporary mission, curricula, students and the learning process, faculty and instruction, administration and governance, and funding. Principles, practices and problems of two year/community colleges in the U.S. Previously offered as EDLE 6683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6703 Finance in Higher Education
Description: Problems and prospects of financing American education, with in-depth discussion of selected topics, e.g., social capital, federal aid, faculty salaries and state support. Previously offered as EDLE 6703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6710 Special Problems in Higher Education and Student Affairs
Description: Focused study of recurrent or unique problem(s) in higher education and student affairs. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6713 Effective Teaching in College and Universities
Description: Relevant research and practice about effective college teaching, role of faculty in higher education settings, and development of teaching strategies and lessons for application in college classrooms. Previously offered as EDLE 6713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6733 Leadership in Contemporary Higher/Postsecondary Systems I
Prerequisites: Admission to doctoral program or instructor permission.
Description: Considers contemporary demands and frameworks for leadership and change in higher education organizations. This course is intended for people who are currently or aspire to mid- to senior level positions in higher/postsecondary education or adjacent organizations. Previously offered as EDLE 6733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6753 Historical Development of U.S. Higher Education
Description: History and development of U.S. higher education, studies of objectives and functions of institutional types and of students and faculty. Introduction of tools and methods appropriate for employing historical approaches to the study of higher education and student affairs. Previously offered as EDLE 6753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6803 Administration in Higher Education
Description: Functions and principles of administration in higher education from historical and contemporary points of view. Both internal and external forces acting on the institution treated. Previously offered as EDLE 6803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6813 Conceptualizing the Study of Higher Education
Prerequisites: Admission to doctoral program or instructor permission.
Description: Exploration of research paradigms, as well as theories of organizational behavior, student development, and socio-cultural phenomena, suitable for conceptualizing the study of higher education and student affairs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6823 Leadership in Contemporary Higher/Postsecondary Systems II
Prerequisites: HESA 6733 or instructor permission.
Description: Leadership and the implications of leadership across higher education/postsecondary systems, contexts, cultures and time. Previously offered as EDLE 6823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6833 College and University Presidency
Description: The role and function of the presidency. For those who anticipate a career in college and university administration or a related management position. Previously offered as EDLE 6833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6843 The Academic Department
Description: Organization and administration in higher education emphasizing an analysis of the academic department and its leader, the department head. Previously offered as EDLE 6843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6850 Directed Readings in Higher Education and Student Affairs
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6853 Research Design for Higher Education
Prerequisites: HESA 6813
Description: Exploration of advanced integrated research strategies and the development of designs and methods supporting the field of higher education and student affairs administration. Previously offered as EDLE 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6863 University and College Campus Culture
Description: This course examines the concept of institutional and collegiate culture as a lens to understanding higher education institutions and their various stakeholders. Previously offered as EDLE 6863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6870 Seminar in Higher Education and Student Affairs
Description: Topical issues related to higher education and student affairs. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6903 Dissertation Proposal Writing
Description: Assists doctoral candidates in the Higher Education and Student Affairs program with the development of Chapters One through Three of their dissertation proposals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

History (HIST)

HIST 1010 Studies in American History
Description: Special study in American history to allow transfer students to fulfill general education requirements as established by Regents' policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 1103 Survey of American History
Description: Meaning, vitality, and uniqueness of United States history since 1492 through a thematic examination of the nation's past. Satisfies, with POLS 1113, the State Regents requirement of six credit hours of American history and American government before graduation. No degree credit for students with credit in HIST 1483 or HIST 1493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 1483 American History to 1865 (H)
Description: From European colonization of the Americas through the U.S. Civil War. Examines important political, economic, social, and cultural developments, such as the transatlantic slave trade, the American Revolution, the Constitution and the Bill of Rights, the Market Revolution, Antebellum slavery, the abolitionist movement, Indian Removal, and sectionalism and the Civil War. Intended for Education majors seeking certification as Social Studies teachers. May not be used for degree credit with HIST 1103. Previously offered as HIST 2483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1493 American History Since 1865 (DH)
Description: From the period of Reconstruction to the present. Examines important political, economic, social, and cultural developments, such as the Compromise of 1877, lynching, Jim Crow, economic imperialism, the Progressive Era, U.S. participation in the world wars, the Great Depression, the New Deal consensus, redlining/suburbanization, the Cold War, the Civil Rights Movements, the Reagan Revolution, and the "culture wars." May be taken independently of HIST 1483. May not be used for degree credit with HIST 1103. Previously offered as HIST 2493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 1613 Western Civilization to 1500 (H)
Description: History of western civilization from ancient world to Reformation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1623 Western Civilization after 1500 (H)
Description: History of western civilization from Reformation to present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1713 Survey of Eastern Civilization (H)
Description: History of three eastern civilizations (East Asia, South Asia and West Asia) from pre-history to the 18th century. Special attention to their origins, development, and contributions to the evolution of world civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1813 World History from Ancient Times to 1500 (H)
Description: This course examines the development of social, cultural, economic, and political systems from ancient times to the beginning of the sixteenth century. We will examine the growth of empires, trade routes, religions, and culture in Asia, Africa, the Americas, and Europe. This course will examine the ways in which these societies connected and made contact with each other through trade, warfare, and migration and the resulting exchange of ideas. Previously offered as HIST 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1823 World History 1500 to Present (H)
Description: This course surveys world history from 1500 to the present day. The course will track the formation of the "modern" world through a study of changes in political situations, culture, and society. The course will examine topics such as changes in science and technology, culture and religion, the expansion and decline of empires, the growth of nationalism, and the continuing rise of globalization. The class will emphasize the role of changing definitions and roles of race, social class, and gender in shaping historical events. Previously offered as HIST 2223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2023 History of the Present (H)
Description: Introduction to the study of history through the lens of current events and contemporary issues. Particular areas of focus will vary, based on instructor's expertise, to include topics like race, gender religion, food, sports, environment, politics, immigration, mass incarceration, and/or globalization, among others. Contact the History Department for specific information for the upcoming semester.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2043 Ghosts and Graveyards: History of Dark Tourism (H)
Description: This course explores the history of dark tourism, including practices and impact. Students will analyze tourist experiences in spaces associated with tragedy, suffering, death, and spookiness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2133 African Diaspora History(DH)
Description: Introduction to the origin, development, and maturation of the African Diaspora in the Americas and the Caribbean, beginning on the African continent and moving through the Americas, Caribbean, and Europe. It considers important issues, such as the formation of racial identities, movements, the circulation of ideas and connections in activism, and the manner in which the intersection of race, class, gender, sexuality, location, language, and power influence how groups and individuals experience diaspora. Previously offered as HIST 3133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2153 African American History, 1619-1865 (DH)
Description: Overview of the history of African Americans from their African origins to their participation in and impact on the Civil War. Topics include: African background; interaction between Africans, Indians and Europeans; development of slavery; forms of resistance; rise of the abolitionist movement; and conditions of free blacks. Previously offered as HIST 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2163 African American History, 1865-Present (DH)
Description: Overview of the history of African Americans from the end of the Civil War to the present. Topics include emancipation and Reconstruction; the Jim Crow Era; migrations to the North and West; the Civil Rights and Black Power Movements; contemporary developments in African American life. Previously offered as HIST 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2313 Heroes and Wonders of the Ancient World (H)
Description: Highlights of ancient history, especially from Egypt, Mesopotamia and Greece. Examines the Seven Wonders of the Ancient World and heroes such as Gilgamesh, Achilles, Sappho and Heracles. Other major historical and archaeological discoveries are also featured.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2333 American Thought and Culture: Survey (H)
Description: Survey of American religious, philosophical, artistic, and scientific ideas and their impact on culture and values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2343 Religion in America (DH)
Description: Survey of the religions practiced in North America and the United States from the colonial era to the twenty-first century, including Native American religions, Christianity, Islam, and Judaism; impact of religion on social reform, politics, and intellectual life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2353 Environmental History (H)
Description: A history of the environment that studies the changing relationships between humans and the natural world around them. It will explore both how people have thought about the environment and the role of science, economics, disease, and states in shaping how humans and non-human animals have lived on land.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2413 From Assassin's Creed to Witcher: Medievalism in the 21st Century World (H)
Description: Assesses video game and film portrayals of the Middle Ages and medievalism. Through historiographical readings and critical analysis of modern media sources, examines the ways in which popular media depictions of the past weave fact with fiction, building on our common cultural narrative of "medieval-ish" worlds. No credit for degree credit in HIST 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2473 American Imperial Culture
Description: This course is designed to be a broad survey of American imperial culture, and responses to it, with a focus on the period from 1890 to 1960. Same course as AMST 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 2513 Plantation to Plate: Sugar, Bananas, and Coffee in America (H)
Description: Considers the historical impact that three food commodities – bananas, sugar, and coffee – have had on producing and consuming societies in Latin America and the United States. Analyzes the way food influenced the formation of racial and gender identities and examines different moments when these commodities influenced foreign policy and politics. Same course as AMST 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2523 Dust Bowl (H)
Description: Examination of the Dust Bowl as: an ecological, economic, and human tragedy; cultural representations in film, literature, art, photography, and music; and a comparative example to study modern issues of ecology, water rights, and environmental justice in the southern plans and around the world. Same course as AMST 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2603 History of Science (H)
Description: This course offers an introduction to the history of science from the ancient world to the present. It will not focus exclusively on discoveries and their discoverers. Instead, it will stress questions such as: What is science, how has it been practiced, and by whom? Does culture play a role in scientific development? What is the relationship of gender, race, class, sexual identity, and science? May not be used for degree credit with HIST 3073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2613 History of Disease (H)
Description: A global history of diseases across time. Emphasis on infectious diseases and pandemics and their social, cultural, and political effects. May not be used for degree credit with HIST 3893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2713 Sympathy, Curiosity, and Rivalry: The U.S. and China Since 1900 (H)
Description: This course offers a historical overview of the United States and China since 1900. Students will have the unique intellectual experience of looking at each country's recent history from the perspective of the other. More than diplomatic relations, it also covers the social and cultural experiences of both, particularly in areas where they inspire, impact on, and interact with each other.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2890 Honors Experience in History
Prerequisites: Honors Program participation and concurrent enrollment in a designated HIST course.
Description: A supplemental Honors experience in History to partner concurrently with designated History courses. This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Honors Credit

HIST 3013 Ancient Egypt and Israel (H)
Description: The history of Egypt from prehistory through the New Kingdom, and ancient Israel from prehistory through the Persians.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3023 Ancient Greece (H)
Description: The Greek world from the Bronze Age through Alexander the Great with special emphasis on politics, culture and institutions of Classical Greece.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3033 Ancient Rome: The Republic (H)
Description: Political, social, cultural and economic history of the Roman Republic from the Etruscans to the death of Julius Caesar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3043 From the Garden of Eden to Babylon (H)
Description: From the birth of civilization to the end of the Persian Empire, this course examines the history, archaeology and cultures of the fertile crescent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3063 The Roman Empire (H)
Description: This empire provides a historical survey of the Roman Empire from the middle of the 1st century BCE through the middle of the 5th century CE. This course covers a range of interrelated themes and issues that shaped the everyday lives of Romans, including the importance of social hierarchies within and across civil affairs and family life; the various political structures and forms of governance within the empire; the dimensions of military life, conquests and expansion; economic realities; work and leisure; and various cultural aspects including the roles of religion and philosophy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3083 Modern Italy: Cultural Patrimony and National Identity (GH)
Description: This course will examine Italy's cultural patrimony and its role shaping the country's national identity and international reputation. Students will study the influence of Italy's artistic and architectural heritage on modern Italian society, global tourism, and international conservation policies. Among the topics explored will be Pompei and the western imagination, the Monuments Men during World War II, mass tourism in the city of Venice, and the competing interests of international, national, and local communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3093 Historical Geography of North America to 1800 (H)
Description: This course is an examination of the cultural geography of colonial North America from the earliest European contact with Native Americans to the end of the 18th Century. The course examines regional patterns of indigenous American Indian settlement, European exploration, trade, coloniatization, immigration, impacts upon indigenous societies, and the development of pre industrial economic regions. Students will gain an appreciation of the interactions of various indigenous, European, and African peoples in different environments in the colonial era. Same course as GEOG 3093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3113 Germany Since 1815 (GH)
Description: Creation of a centralized state in Germany; impact of World War I and the subsequent failure of the Weimar Republic; rise of national socialism, totalitarianism, and the Third Reich; German experience in WWII, repression of minorities, and the Holocaust; post-war Germany and modern reunification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3123 The History of Modern Africa (GH)
Description: The course will cover the history of Modern Africa from 1750 to the present. The class will begin with a general background and history of ancient and early modern Africa, and move forward with examinations of colonial and contemporary African culture, society, and politics. The course will have a particular focus on African perspectives on the West, and the effects of the slave trade, imperialism, and globalization on modern day Africa. Students will analyze many different types of sources including films, artwork, graphic novels, novels, and poetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3153 Russia to 1861 (H)
Description: Political, institutional, societal and economic development of Russia from the Kievan period to the Great Reforms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3163 Russia Since 1861 (GH)
Description: Modernizations of Russia in the 19th and 20th centuries. Great reforms and their effects and the 1917 revolutions and their consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3203 The Medieval World, 500-1500 (H)
Description: The society and culture of Europe, Byzantium and the Middle East, 500-1500. Emphasis on social, cultural, religious and political developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3233 Late Medieval World, 1000-1450 (H)
Description: The Late Middle Ages in Europe and its ties to the Middle East. Examines the period of the Black Death, Hundred Years War, early Renaissance, and the flourishing of new forms of government, religious life and social upheaval. Emphasis on social, cultural, religious and political developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3243 Renaissance, 1350-1517 (H)
Description: The development of the Renaissance from the Italian city-states to the New World. Political development, cultural innovation, and the role of disease in history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3253 Absolutism and Enlightenment, 1648-1789
Description: Political, economic, social, intellectual and religious transformation of Europe between the Peace of Westphalia and the French Revolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3263 Modern Europe, 1815-1914 (H)
Description: Examines the history of Europe from the end of Napoleon through the start of World War I. Emphasis on political revolutions, modern nationalism, industrialization, cultural movements, imperialism, and alliance diplomacy that transformed the Continent into a battleground in 1914.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3273 Modern Europe Since 1914 (GH)
Description: Origins, character and impact of the first World War; emergence and consequences of the totalitarian state; nature of political and intellectual terrorism. Effects of worldwide economic depression; dilemmas of modern democracies; political collapse of Europe as a consequence of World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3303 Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
Description: Examines Latin American migration to the United States through a case study approach. Considers US foreign policy, questions of labor and economic motivations, political violence and persecution, changes in immigration law, environmental issues, histories of the process of migration, and the formation of new identities and transnational communities and activism in the United States. Same course as AMST 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3323 Modern France, 1789-Present (GH)
Description: French politics, economy, society, and culture from the Revolution and rise of Napoleon to France's post-World War II "rebirth" and reckoning with its colonial past.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3333 History of the Second World War (GH)
Description: Problems leading to World War II with their international implications and consideration of the war years.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3343 World War I in Modern European Culture (GH)
Description: Analysis of the war as the principal event determining the course of twentieth century European history: battles, home fronts, personal, literary and artistic expression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3363 Popular Religion in the West, 1300-1700 (H)
Description: The study of the religious experience of both lay people and clergy between 1300 and 1700, when their religious worldview underwent fundamental challenges and changes. The effort to understand the relationship between the secular world and the supernatural will be explored through devotional ideas, practices and religious rituals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3373 Invasion and Identity: The Medieval English World: 700-1400 (H)
Description: Medieval English history through Britain's experience of invasion and settlement: includes the Vikings, Normans and England's conquest of Britain and parts of France. Emphasis on social, cultural, political and religious history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3383 Tudor-Stuart England (H)
Description: History of England from the War of the Roses through the coming of the House of Hanover in 1714. Development of the centralized state, parliamentary reaction, reorientation of the English society and economy and the English Reformation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3393 Modern England: 1714-Present (H)
Description: English history from the arrival of the house of Hanover through the decline of British influence following the Second World War. Political, social, and economic problems encountered as a result of the creation of the first modern industrialized state.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3403 East Asia to 1800 (H)
Description: Traditional Chinese civilization and its impact on Japan, Korea and Southeast Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3413 East Asia Since 1800 (GH)
Description: Impact of the Occident on China, Japan and Southeast Asia. Problems of trade and diplomacy; political and industrial transformation of Japan; revolutionary process in China; the rise of nationalism in Southeast Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3423 Modern Japan (GH)
Description: Modernization process in Japan since 1868.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3433 Modern China (GH)
Description: Response of China to the West since 1840, with stress on economic, social and intellectual currents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3443 Gender Relations in Chinese History (H)
Description: Men's and women's social, cultural, religious, political, economic, family, and sexual experiences in Chinese history; particularly women's own voices and efforts in pursuing their own goals and aspirations. Same course as GWST 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3453 Colonial Latin America (H)
Description: Considers the encounter between Indigenous peoples and Europeans in Latin America, analyzing the formation of race, class, religious, and gender identities. Focuses on Indigenous and European experiences with imperialism, 18th Century reforms, and independence movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3463 Modern Latin America (GH)
Description: Considers nation-state formation in Latin America, emphasizing 19th century dictators and liberal reform movements. Explores U.S. foreign policy, indigenous mobilizations, 20th century revolutions, and contemporary issues such as natural disasters, the drug trade, and immigration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3473 British Empire and Commonwealth of Nations (H)
Description: This course will examine the growth of the British Empire from the eighteenth century to decolonization in the twentieth century. The course will focus on Britain’s colonies in Africa, Asia, and the Americas, and compare British imperialism to other global imperial powers. Topics will include historical studies of colonial literature, exploration, popular culture, medicine, education, military history, imperial anthropology, and gender.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3483 Reformation Europe, 1517-1648 (H)
Description: Development and impact of religious reform movements, overseas expansion, statebuilding, the Scientific Revolution, and the Thirty Years' War on European civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3503 Medieval Islamic History (H)
Description: Rise of Islam in Arabia and subsequent spread to Africa, Asia and Europe. Discussion of political, social, cultural and economic institutions established in the Middle Ages as well as diversity of Islamic and continuing non-Islamic traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3513 Modern Middle East (GH)
Description: Main political events, social institutions, cultural and economic developments, as well as various aspects of everyday life in the Middle East. Transformation of traditional society, imperialism and independence, Arab nationalism, Arab-Israeli conflict, the impact of oil, westernization, the rise of militant Islam, and the prospects of democratization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3573 The Mongol Empire (H)
Description: Genghis Khan is infamous for destruction of his conquests, yet his empire grew to be the largest land empire in history, and sparked diplomatic and cultural contacts on a far wider scale than ever before. This course traces the Mongol Empire from Genghis himself to the legacy of the divided Mongol khanates. Attention will be paid to the Mongol Empire's institutional structure, political and cultural dynamics, contacts with Europe, and historians' methods for using primary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3593 Introduction to Museum and Cultural Studies (H)
Description: Historical and theoretical introduction to museum ethics, the function of the curator, and the hanging role of the museum. Same course as ART 3583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3603 Historians at Work
Description: This course introduces students to the history business. Students will develop skills in marketing, proposal writing, proposal evaluation, budgeting, project management, and interdisciplinary collaboration. These skills are valuable in a wide range of careers inside and outside the humanities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3610 Topics in United States History
Description: Special topics in United States history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3613 American Colonial Period to 1750 (H)
Description: European colonization of North America; political, social, cultural, intellectual, religious, and economic developments; Native American engagement with and resistance to colonialism; relations between English, French, and Spanish colonies; and the emergence of slavery in America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3623 Era of the American Revolution (H)
Description: Transition from British colonies to independent United States; important military, political, cultural, economic, social, and religious aspects of the American Revolution; how changes affected all people in America, including African Americans, Native Americans, and women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3633 Early National Period, 1787-1828 (H)
Description: This course covers U.S. history from the framing of the Constitution to the election of Andrew Jackson in 1828. The main focus on this course will be to understand and evaluate the various events, ideologies, and structures that shaped the political, social, economic, and cultural development of the United States in its first years of nationhood. Particular attention will be paid to the experiences, diverse identities, and contributions of Indigenous peoples, enslaved and free black Americans, and women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3643 Antebellum America, 1828-1850 (H)
Description: Major social, cultural, economic, and political developments of mid-nineteenth-century America including: Indian removal, early social reform the expansion of slavery, the growth of capitalism, settler colonialism in the West, and the origins of political sectionalism leading to disunion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3653 Civil War and Reconstruction, 1850-1877
Description: Causes, decisive events, personalities and consequences of the disruption and reunion of the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3663 U.S History 1877-1919 (H)
Description: The impact of industrialization upon American society and politics. America's rise to world power, the Progressive movement and World War I.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3673 United States History, 1919-45 (DH)
Description: The political, economic, social and cultural changes in the United States from 1919 to 1945, the 1920s, the Depression, the New Deal, WWII, and domestic impact of the war.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3683 United States History Since 1945 (DH)
Description: The political, social, and cultural history of the United States since World War II. Topics include the Cold War at home and abroad, the Civil Rights and other social movements, 1960s culture vs. counterculture, the Vietnam War, Watergate, Reagan's America, the War on Terror, and modern globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3693 The Modern West (H)
Description: This course will survey the political, economic, social, and cultural history of the twentieth- and twenty-first century American West. For generations, historians, politicians, and culture makers have grappled with the question of the significance of the West to American development and identity. This course lays the groundwork to understand the region's history, as well as grapple with the wide variety of peoples (domestically and globally) who have sought to locate meaning in the region for themselves and their experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3703 Oklahoma History (DH)
Description: Early exploration and establishment of Indian Territory; the rise and demise of the Five Indian Nations; and the organization and development of the 46th state to the present. Required of all candidates for teacher's licensure/certification in social studies. Previously offered as HIST 2323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3710 Topics in European History
Description: Special topics in European history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3713 Women in the American West (DH)
Description: Introduction to the history of women in the American West from pre-contact to present, with emphasis on cultural diversity, women's roles as economic and social partners, and the many ways women were active participants in western development. This course incorporates Oklahoma and public history using written documents, art, film, museum and archival materials, and local historical sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3753 Trans-Mississippi West (DH)
Description: Emergence of the modern West from Spanish and French settlement and exploration, the Rocky Mountain fur trade, the settlement of Texas, Oregon, California, and Utah, the mining, ranching and farming frontiers, the Indian Wars and transportation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3763 American Southwest (DH)
Description: Southwestern states of Texas, Arizona, New Mexico and California from the Spanish colonial period to the present. Mining, ranching, farming frontiers, Indian wars of the Apache, Comanche and other southwestern tribes, and the emergence of the modern Southwest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3773 The American South to 1860
Description: Social, political and industrial conditions in the South before the Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3793 Native American History (DH)
Description: Introduction to the history of Native American peoples from encounters with European colonists to the present, with an emphasis on tribal nationhood and sovereignty, war and diplomacy, treaty rights and federal policies, indigeneity in modern contexts, and a leadership in Indian Country.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3803 History of Food (H)
Description: This course offers an interdisciplinary examination of the history and culture of food production and consumption in the US with an emphasis on how US food ways relate to those of other countries. It examines such topics as: food and the formation of social bonds, food and identity, the cultural meaning of food ways, issues of justice and equality in food production and consumption, and how food cultures have developed over time and in relation to other societies. Same course as AMST 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3810 Topics in World History
Description: Special topics in world history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3843 War and Memory in America (H)
Description: Examines the ways in which Americans have remembered and commemorated war from the American Revolution to the Global War on Terror. Topics include the creation and perpetuation of memory from both soldiers and civilians, the portrayal of war in popular culture, and the challenges of commemorating and memorializing America's militant past. Same course as AMST 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3853 History of the North American Borderlands (DH)
Description: This class analyzes the histories of the US-Mexico, US-Canada, and Native American borderlands from the 16th century to the present. Topics include indigenous spaces and sovereignty, the establishment of colonial regimes, the formation of nation-states and changing notions of citizenship, immigration policies and experiences, intercultural and interracial communities and tensions, crime and smuggling, representations of the border in media and popular culture, and the political and economic relationships between the United States, Mexico, and Canada.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3863 Disability in America (DH)
Description: Examines the history of disability in American culture. Considers evolving ideas about disability and the status of disabled people in American society. Topics include disability and the law; eugenics; the disability rights movement; representations of disability in popular culture; and intersecting ideas about disability, race, gender, and class. Same course as AMST 3863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3873 History of Health and Social Movements in the United States (H)
Description: This course is focused on the intersection of health and social movements in the U.S. from the late 18th century to the present. In this course students explore the historical role of health and social movements, their relationship with medical theory, politics, religion, culture, and economics, how American movements mobilized, co-evolved, and changed over time, and the role of women, people of color, and marginalized communities in health and social movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3883 History of Drugs, Policy, and Culture in the United States (H)
Description: This course explores the relationship between illicit and licit drug use, drug policy, and depiction of drug use and people who use drugs, producers, sellers, policy makers, and law enforcement in the news and cultural media in the United States from 1800 to the present. The course examines the history of chemical substances that alter the body, the evolution of local and national drug policy and agencies, and how culture and society have impacted drug policies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3890 Advanced Honors Experience in History
Prerequisites: Honors Program participation and concurrent enrollment in a designated HIST course.
Description: A supplemental Honors experience in History to partner concurrently with designated upper-division HIST courses. This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Honors Credit

HIST 3903 Introduction to the Study of History
Prerequisites: History major or consent of instructor.
Description: This course is an introduction to the study of history. It offers an overview of the development of the discipline, historiography, and the philosophy of history. Students learn about the methodology of history, types of historical problems, habits of thought necessary for the discipline, and methods such as research and writing. Previously offered as HIST 2013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3913 History of Medicine (H)
Description: Historical growth of medicine and its relationship to the society in which it develops. Scientific problems, cultural, religious and medicine.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3953 Earthly Powers: Politics and Religion in Modern Europe
Description: Examines the persistence of religiosity in modern Europe amidst secular and political challenges from the 18th century to the present. Topics include pilgrimage, the legal separation of church and state, religious persecution in the era of the World Wars, and struggles with pluralism in the 21st c.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3963 Modern Empires and Revolutions (H)
Description: This course examines the intersection of European imperialism and the global spread of revolutionary ideas from 1789 to the present. It will cover topics ranging from the French Revolution, intellectual revolutions in science and anthropology, colonization in Africa and Asia, the Russian Revolution of 1917, and decolonization in the wake of World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3980 Studies in History
Description: Special topics in history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4033 Introduction to Public History (H)
Description: Introduction to the study and practice of Public History, including historic preservation, cultural resources management, museums, archival work, oral history and memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4053 History and the Law
Description: The course focuses on the origins and outcomes of the most pressing legal battles in present-day society. Students explore how scholars and communities use history to shape the creation, implementation, and interpretation of laws inside and outside the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4063 Historic Preservation
Description: Focuses on the United States and examines the history and theory of the preservation movement, the legal basis for preservation of the built environment and the methodology of preservation. No credit for students with credit in HIST 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4073 Digital Methods in History
Description: Introduction to the methods and practice of working with digital sources, creating digital content, basic foundations of software and metadata for digital archives, introduction to web design and database construction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4093 Oral History: Theory and Methodology
Description: This course is an interdisciplinary introduction to oral history methodology, theory, and professional practice. It examines how oral history projects are constructed and administered and archivally managed. The course will also explore the technologies involved in the collection of interviews, the reliability of memory and the utilization of oral histories in various forms of dissemination. Students will gain practical experience in oral history interviewing and related aspects of oral history, such as transcribing, editing, archiving, and publishing oral histories. May not be used for degree credit with HIST 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4103 Historical Geography of the United States (H)
Description: Examination of the spatial dynamics of frontier encounter and settlement, regional development, and cultural landscape evolution in the United States from pre-European to modern times. Same course as GEOG 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4113 Globalization and American Culture
Description: Transmission, reception, and influence of American culture in one or more of the following: Europe, Asia, Latin America, the Middle East. The cultural history of globalization and American culture. Same course as AMST 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4173 Black Intellectual History (DH)
Description: Examines the nature of black social and political thought from the early 18th to the mid-20th century and the contributions made by black intellectuals to discussions of race, citizenship and nationality. Emphasis is placed on topics of abolitionism, labor movements, populism, socialism, pan-Africanism, feminism, and the civil rights movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4193 The Body in American Culture (H)
Description: The body and its impact on American culture examined through a survey of diverse cultural productions and social practices. Examine the intersections of ideas of embodiment with discourse of race, class, gender, sexuality, disability, and nationalism. Same course as AMST 3653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4203 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital issues and how the criminal justice responds to these issues. Same course as AMST 4103 and SOC 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Society & Human Behavior

HIST 4253 U.S. Foreign Relations to 1945 (H)
Description: American experience in foreign relations from colonial times to World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4273 U.S. Foreign Relations Since 1945 (H)
Description: Overview of the history of U.S. foreign relations from World War II to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4353 American Military History (H)
Description: Civil-military relations, the military implications of American foreign policy, and the impact of technological advances on warfare since colonial times.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4363 US History through Popular and Unpopular Music (DH)
Description: This course will explore how music – including folk, rock, jazz, vaudeville, country, blues, and hip-hop – makes history and history makes music. In doing so, this course will consider music's discursive power within the arenas of American social, cultural, gender, racial, class, and political struggles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4403 Sorcerers, Saints and Heretics: Religion in the Medieval World (H)
Description: Religious belief and practice in the medieval world, c. 500-1300. Examines the formation of major religions, the experience of religious minorities, the experience of interfaith communities, enduring superstitions and heresies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4413 Sex and Gender in the Medieval World (H)
Description: Historical attitudes toward sex and gender history in medieval Europe. Interdisciplinary approach also including cultural, social, economic and religious history. Same course as GWST 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4433 From Assassin's Creed to Witcher: Medievalism in the 21st Century World (HI)
Description: Assesses video game and film portrayals of the Middle Ages and medievalism. Through historiographical readings and critical analysis of modern media sources, examines the ways in which popular media depictions of the past weave fact with fiction, building on our common cultural narrative of "medieval-ish" worlds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4453 History and Film (H)
Description: Examines the ways in which historical events are made available to viewers through the medium of the cinema. The primary focus involves examining the relationship between historical events and the ways in which those events are depicted, commemorated, memorialized, remembered and misremembered in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4463 American Cultural History to 1865 (H)
Description: American society in nonpolitical aspects: sections, classes, national culture and social structure, immigration, education, religion, reform, world influences; ends with Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4483 American Cultural History Since 1865 (H)
Description: Continuation of HIST 4463; may be taken independently. Emphasis on nonpolitical aspects of American society and thought and on world influences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4493 Frontier in American Memory (H)
Description: Examination of the ways in which several American frontiers have been remembered, especially in popular culture. These frontiers include those informed by imagery related to Euro-American pioneers, women, people of color, and the tribal peoples of the American West.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4513 Economic History of the US (S)
Description: This course examines American economic history from the pre-colonial period to the present. Attention will be paid to important economic thinkers like Alexander Hamilton, Thomas Jefferson, W.E.B. DuBois, Henry George, Milton Friedman, and Stephanie Kelton. Another focus will be on understanding and evaluating critical debates about economic history and the differing methodologies that economists and historians utilize to shape their interpretations and arguments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Society & Human Behavior

HIST 4523 American Environmental History (H)
Description: Examination of the changing ways society (from Native American to post-industrial) has defined, interpreted, valued, and used nature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4543 Vietnam War (GH)
Description: Origins of the Vietnamese struggle against colonialism, international policy, making of military strategy and diplomacy, anti-war movement, impact of the war on soldiers and civilians, reflections of the war in popular memory and culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4553 Gender in America (DH)
Description: Cultural, societal and political reflections of American men and women from the colonial era to the present. Examination of the women's movements and their opponents. Exploration of changing notions of masculinity and femininity. Same course as AMST 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4563 Cold War (GH)
Description: International perspectives on the origins, conflicts and ideologies of the Cold War, the nuclear arms race, impact on daily life, cultural reflections, the collapse of communism, victors and losers in the post Cold War world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4593 America in International Perspective (H)
Prerequisites: HIST 1103 or lower-division survey course in U.S. History, any period.
Description: A transnational interpretation of American history from the colonial era to the present day. Uses a variety of interdisciplinary sources to place the history of the United States within a comparative, global framework. Same course as AMST 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4633 Religion in Early America (H)
Description: A study of religious life and its history in early America, beginning with its earliest European settlers, Native Americans, and continuing through the 1800s. Same course as REL 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4723 Jerusalem: City and Symbol Across Millennia (H)
Description: This course explores the history of Jerusalem as a city from the earliest records of its existence in the Ancient Near East to current events, as well as the meanings attached to Jerusalem as a symbol by Jews, Christians, and Muslims living around the world, from ancient scriptures to contemporary America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4753 Muslim-Christian Relations (H)
Description: Exploration of commonalities and differences between Christianity and Islam, and the history of cooperation and conflict between Muslims and Christians, from Arabia in Muhammad's time to worldwide in the twenty-first century. Themes include mutual understanding and misunderstanding, conversion, rulers and subjects, discrimination, and dialogue. Same course as REL 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4883 History of Modern Southeast Asia (GH)
Description: This course will focus on the history of Southeast Asia from the late 18th century to the present day. We will examine how the histories of these nations have been connected politically, culturally, and economically. The course will be framed around specific themes such as global trade, religious diffusion, imperialism, ideas of "tradition", nationalism, and globalization in modern Asia. The class will deal extensively with the present-day legacy of these historical processes in the region.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4903 Senior Seminar
Prerequisites: HIST 3903.
Description: An introduction to historical research for senior history majors. Students will be required to select, research, and write a seminar paper based on primary documents and use standard footnoting and bibliographical methods. Previously offered as HIST 3973.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4980 Topics in History
Description: For students interested in pursuing either a research or a reading project. Open to students in history and to others by permission of instructor. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4990 Undergraduate Internship
Prerequisites: Consent of instructor.
Description: History related internship experience designed to introduce majors to career possibilities. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in history.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 5000 Thesis
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5021 Teaching History at the College Level
Prerequisites: Graduate standing or permission of instructor required.
Description: Survey of objectives and methods in the teaching of history at the college level.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5023 Historical Methods
Prerequisites: Graduate student standing or permission of instructor required.
Description: Methods of historical research and the writing of history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5030 Public History Internship
Prerequisites: Graduate student standing or permission of instructor required.
Description: Supervised practical experience in public history. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5033 Introduction to Public History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to theory and practice of public history. Includes public history careers, public history as a field in the discipline, and the public perception and use of the past.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5053 Museum Studies
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to museum theory and practice, especially as it pertains to history museums and sites. No credit for students with credit in HIST 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5063 Historic Preservation
Prerequisites: Graduate student standing or permission of instructor required.
Description: Focuses on the United States and examines the history and theory of the preservation movement, the legal basis for preservation of the built environment, and the methodology of preservation. No credit for students with credit in HIST 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5073 Digital Methods in History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to the methods and practice of working with digital sources, creating digital content, basic foundations of software and metadata for digital archives, introduction to web design and database construction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5093 Oral History: Theory and Methodology
Description: This course is an interdisciplinary introduction to oral history methodology, theory, and professional practice. It examines how oral history projects are constructed and administered and archivally managed. The course will also explore the technologies involved in the collection of interviews, the reliability of memory and the utilization of oral histories in various forms of dissemination. Students will gain practical experience in oral history interviewing and related aspects of oral history, such as transcribing, editing, archiving, and publishing oral histories. May not be used for degree credit with HIST 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5120 Reading Seminar in American History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Historiographical and bibliographical study of special areas of American history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5140 Reading Seminar in European and World History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Historiographical and bibliographical study of special areas of European and World history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5220 Research Seminar in American History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Research in selected problems in American history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5240 Research Seminar in European and World History
Prerequisites: Graduate standing or permission of instructor required.
Description: Research in selected problems in European and World history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6000 Doctoral Dissertation
Prerequisites: Admission to candidacy.
Description: Advanced research in history. Offered for variable credit, 1-19 credit hours, maximum of 30 credit hours.
Credit hours: 1-19
Contact hours: Contact: 1-19 Other: 1-19
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6023 Historiography
Prerequisites: Graduate student standing or permission of instructor required.
Description: Major writers of history, historical schools and patterns of developments in historical interpretation from the earliest times to present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 6100 Directed Readings in History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Readings in selected topics in history to develop factual knowledge, analytical skills, and interpretive understanding. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6130 Graduate Studies in History
Prerequisites: Graduate student standing.
Description: Graduate-level work under taken in association with upper-division lecture courses. Added component ordinarily entails a graduate-level research paper or historiographical essay of substantial length. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

Honors (HONR)

HONR 1000 Introductory Honors Topics
Prerequisites: Introductory Honors Topics.
Description: Introduction to topics in various disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1010 Introductory Honors Seminar in Social Sciences
Prerequisites: Honors College participation.
Description: Introduction to topics in social science disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1020 Introductory Honors Seminar in STEM
Prerequisites: Honors College Participation.
Description: Introduction to topics in STEM disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1030 Introductory Honors Seminar in Arts and Humanities
Prerequisites: Honors College participation.
Description: Introduction to topics in arts and humanities disciplines. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1093 Patterns and Symmetry in Mathematics (Q)
Prerequisites: Honors Program participation.
Description: Tessellations, or repetitive patterns in the plane and in space, and the symmetries, or rigid motions, that preserve them. Illustrations from art, architecture, science, and nature. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Analytical & Quant Thought, Honors Credit

HONR 1103 The US Presidency (as seen on TV) (S)
Prerequisites: Honors College participation.
Description: This course will focus on the relationship between the U.S. Presidency and the media, starting from the Roosevelt administration. The course also examines the unique communication opportunities Presidents (and those seeking the office) can utilize, from news conferences to debates. Special consideration will be given to the impact of new and social media and whether it is diminishing the impact of television on coverage of the office.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 1113 Active Aging for L.I.F.E (DS)
Prerequisites: Honors College participation.
Description: Active aging allows people to realize their potential for physical, social and mental well-being throughout the life course. In this honors seminar you will acquire a great deal of information on a wide range of topics in order to build your personal understanding of the relationships between Longevity, Independence, Fitness and Engagement for active aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 1123 The Art of Mindful Living (H)
Prerequisites: Honors College Participation.
Description: Meditation and mindfulness are becoming ever-more relevant and important in our busy modern world and life. This course presents the basics for both understanding and practicing mindfulness so to live a more peaceful and fulfilled life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 1133 Place-As-Text Seminar (H)
Prerequisites: Honors College Participation.
Description: Place-as-Text™ is a curriculum developed and taught by honors colleges and programs around the country. These courses focus on a place, often a city, and explore life and culture there through immersive, experience-based activities. Students will learn to observe closely, "read" what they encounter and experience, and independently analyze how cultural ideas create real living conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 1153 Sex in College Culture Honors (S)
Prerequisites: Honors College Participation.
Description: Within college culture, individual identity and behavior, social expectations, and campus policies coalesce to influence the sexual experiences of college students. This course examines gender; sexual scripts; dating, hooking up, and relationships; sexual orientation; Greek life; and sexual violence as confined within and ultimately shaped by college culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 1503 Integrative Biology: The Mind (N)
Prerequisites: Honors College participation.
Description: The Mind connects biopsychology to real world behavior and shows how millions of years of cognitive evolution have shaped how we see the world and how we make decisions based on our perceptions. This is a natural science course that addresses important contemporary social issues and will be uniquely effective at helping prepare students to not only be successful young academics, but conscientious thoughtful members of society as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Natural Science Reasoning

HONR 2013 Honors Law and Legal Institutions (S)
Prerequisites: Honors Program participation.
Description: An introduction to law in American society with reference to its European origins; its political, economic, psychological, and sociological dimensions; and the substantive law in selected areas. Introduction to legal reasoning and legal research techniques. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 2023 Constitutional Dimensions of Diversity (DS)
Prerequisites: Honors College participation.
Description: An introduction to American constitutional law as it relates to diversity issues through the study of landmark Supreme Court decisions affecting the rights of various minorities. Introduction to legal research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 2063 Ethical Issues Across Cultural Perspectives (H)
Prerequisites: Honors Program participation.
Description: An introduction to reasoned methods of evaluating ideas and arguments as they pertain to ethical issues from a global perspective. Concepts including obligation, justice, and ethnicity from Lao Tzu, Maimonides, Kant, and Indian wisdom stories. Environmentalism, technology, and cultural knowledge. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2073 The Story of Lizzie Borden: Axe Murder in American Culture (DH)
Prerequisites: Honors College participation.
Description: In 1892, Lizzie Borden was accused of killing her father and stepmother with an axe. She was eventually acquitted, but her story had captured the American cultural imagination. This course examines representations of the Lizzie Borden story in news reports, true crime, short fiction, poems, novels, plays, a ballet, and multiple films, exploring how changing concepts of gender shape the way in which the story is told in different media and in different moments in American history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 2083 Honors Flash Fiction: A Tiny Genre with a Big Impact (DH)
Prerequisites: Honors College participation.
Description: This honors seminar explores diversity in contemporary American culture through the lens of flash fiction; very short stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 2093 Tornadoes in American Culture (H)
Prerequisites: Honors College participation.
Description: This honors seminar will explore how tornadoes shape regional identities, produce diverse narratives, and influence art, literature and film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2303 Magic Rings Symbol and Allegory (H)
Prerequisites: Honors College participation.
Description: A study of magic rings as symbols in Western philosophy, literature, and music. Works will include Plato's Republic, Wagner's Ring on the Nibelung, and Tolkien's Lord of the Rings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2313 Don Juan: His Lives and Times (H)
Prerequisites: Honors College participation.
Description: A cultural history of the Don Juan figure in literature and music from the 17th century to the present. Works studied include those by Tirso de Molina, Molière, Mozart, Pushkin, Byron, Shaw, and Walcott.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2323 Witches, Murderers, Pirates, and Thieves: Early American Crime Narratives (H)
Prerequisites: Honors College participation.
Description: Tales of crimes – real, alleged and fictional – were very popular with readers in the 17th, 18th and 19th century Atlantic world, as they are today. As we work our way through tales of sensational crime, we will think about the cultural work that crime stories do; that is, we will consider how they explore ideas about human nature, civil society, authority, transgression, and the origins of evil.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2413 The Ancient World (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from ancient Greece and Rome as well as the religious ideas central to Judaism and Christianity. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. No degree credit for students with prior credit in HONR 2113. Previously offered as HONR 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2423 The Middle Ages and Renaissance (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the Middle Ages to the early Renaissance. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2113. Previously offered as HONR 1023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2433 The Early Modern World (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the late Renaissance to the mid-19th century. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2223. Previously offered as HONR 1033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2443 Honors Romanticism to Postmodernism: 19th & 20th Centuries (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the 19th century to the present. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2223. Previously offered as HONR 1043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2503 Confronting Pseudoscience
Prerequisites: Honors College participation.
Description: Using the tools of evidential reasoning and critical thinking this course examines the difference between a true scientific endeavor and pseudoscientific belief systems. In doing so it provides students with an understanding of scientific reasoning and its application in everyday life while exposing students to content from a range of the natural sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 2514 Honors Scientific Inquiry
Prerequisites: Honors Program participation.
Description: A team-taught interdisciplinary course dealing with philosophy of science and the application of the scientific method in the natural and social sciences. Selected topics that involve interdisciplinary scientific inquiry. For the Honors student.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3000 Advanced Honors Topics
Prerequisites: Honors Program participation, junior standing.
Description: Topical study in various disciplines taught by faculty from the undergraduate colleges for junior and senior students in the University Honors Program. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3010 Advanced Honors Seminar in Social Sciences
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in social science disciplines for the Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3013 Holocaust Studies Seminar (GH)
Prerequisites: Junior standing and Honors College participation.
Description: An interdisciplinary study of one of the great atrocities of human history – the Holocaust. Addresses questions of good and evil, divinity and humanity, and truth and responsibility that arise from this event. For the Honors Student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit, International Dimension

HONR 3020 Advanced Honors Seminar in STEM
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in STEM disciplines in the Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3023 Contemporary Cultures of the Western World: Honors (GH)
Prerequisites: Honors College participation.
Description: Interdisciplinary examination of one or more cultures of Europe and/or the western hemisphere. The course will explore characteristics of "Western" cultures and their manifestations in modern societies. Topics of study include diversity in social and cultural practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit, International Dimension

HONR 3030 Advanced Honors Seminar in Arts and Humanities
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in arts and humanities disciplines in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3033 Contemporary Cultures of the Non-Western World: Honors (GS)
Prerequisites: Honors College participation.
Description: Interdisciplinary study of contemporary cultures of non-western world including lifestyle, housing and food. Team-taught by faculty from appropriate disciplines in a lecture and discussion format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, International Dimension, Society & Human Behavior

HONR 3043 Contemporary Cultures of the United States (DS)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of racial and ethnic diversity in the United States in context of social, political, and economic systems to promote knowledge of racial and ethnic minority groups in the United States and appreciation of their contributions to the mosaic of contemporary American life. Team-taught by faculty from appropriate disciplines in a lecture and discussion format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 3053 Biology, Race, and Gender: Honors (DH)
Prerequisites: Junior standing and Honors College participation.
Description: Critical interdisciplinary investigation of relationships between biological theory (especially Darwinism) and social and ethical issues. Attention to views of alleged biological aspects of perceived racial and gender differences and attempts to implement these views socially, legally, and medically in the United States and elsewhere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 3063 Jane Austen: Life, Art, and Influence (H)
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: An author who continues to speak to generations of readers centuries after her death, Jane Austen wrote a half dozen novels that became classics within a few decades of their creation. This course examines the distinct features of the writing that accounts for her significant accomplishments - not just on the development of the novel but her influence on those novelists who followed her.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3990 Honors Thesis Preparation
Prerequisites: Honors College participation, Senior Standing.
Description: A guided preparation course for students completing the requirements for college or departmental honors awards leading to an honors thesis, project or report under the direction of a faculty member from one of the undergraduate colleges, with a second faculty reader. This preparation course is typically taken the semester before HONR 4993. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 4993 Honors Creative Component
Prerequisites: Honors Program participation, senior standing.
Description: A guided creative component for students completing the requirements for college or departmental honors awards leading to an honors thesis, project or report under the direction of a faculty member from one of the undergraduate colleges, with a second faculty reader and oral examination.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

Horticulture (HORT)

HORT 1013 Principles of Horticultural Science (LN)
Description: Basic physical and physiological processes responsible for plant dormancy, growth, flowering, fruiting, and senescence with respect to the science and art of production, cultivation, utilization, and/or storage of horticultural plants. Current research associated with various horticultural commodity groups.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 2010 Internship in Horticulture or Landscape Management
Prerequisites: 24 credit hours and consent of adviser.
Description: Supervised work experience with approved public and private employers in horticulture, landscape management, or related fields. Credit will not substitute for required courses. Graded on a pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 2513 Herbaceous Plant Materials
Description: Identification, cultural requirements, and use of ornamental garden and indoor herbaceous plants.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 2613 Woody Plant Materials
Description: Identification, cultural requirements, and use of ornamental woody plants including deciduous and evergreen trees, shrubs and vines.00 per credit hour applies
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3013 Arboriculture
Prerequisites: HORT 2613 or NREM 2134 and SOIL 2124.
Description: Theory and practice of selecting, planting and maintaining trees, shrubs and vines in the landscape. Previously offered as HORT 3014.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 3084 Plant Propagation
Prerequisites: HORT 1013 or PLNT 1213
Description: Principles and practices involved in propagation of plants. Anatomical, morphological and physiological aspects of sexual and asexual methods of regeneration and their importance.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3113 Greenhouse Management
Prerequisites: HORT 1013 or PLNT 1213
Description: Commercial greenhouse operation with emphasis on floricultural plant production aspects; environment, growing media, fertilizers and application methods, watering, pest and disease control, chemical growth regulators, production costs.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT or LA Course Field Trip fee of $20 and HORT/LA Facil, Equip, Lab fee of $12 per credit hour apply.

HORT 3153 Turf Management
Description: Selection, establishment and maintenance of grass species and other plant materials for special use areas.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3213 Fruit and Nut Production
Prerequisites: BIOL 1113 and BIOL 1111 or PBIO 1404.
Description: Commercial production of fruits and nuts, with emphasis on pecan, apple, peach, strawberry, blackberry and blueberry. A two-day field trip is required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3253 Personnel and Financial Management for Horticulture
Prerequisites: HORT 1013 or LA 1013 and one upper division HORT or LA course.
Description: Preparing and executing an operational budget in a horticultural service industry and methods for maintaining an effective work force.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 3433 Commercial Vegetable Production
Description: Commercial production and marketing of vegetable crops. May not be used for degree credit with HORT 5433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3513 Landscape Irrigation
Description: Basics of landscape irrigation with an emphasis on residential irrigation design, maintenance and installation.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3613 Bidding and Estimating
Prerequisites: ACCT 2003 or ACCT 2103.
Description: Budgeting, bid preparation and job cost estimation for landscape related industries including golf course budgeting, overhead and labor budgeting, and profitable pricing. Previously offered as HORT 3612.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 3713 Urban Horticulture Production
Prerequisites: HORT 1013 or PLNT 1213.
Description: Principles and production of crops for public or community practices with emphasis on production associated with hydroponics, raised beds, containers, controlled environments, roof tops, high tunnels, and farmers markets.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3833 Hydroponics and Soilless Crop Production
Description: Basics of soilless production with emphasis on hydroponics and aquaponic production of vegetables and cut flowers.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4010 Special Topics in Horticulture
Description: New and emerging areas of study in Horticulture. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4053 International Experience in Horticulture (G)
Description: Participation in international travel to develop an understanding of different horticultural systems and technologies used outside the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

HORT 4133 Temperature Stress Physiology
Prerequisites: CHEM 1215, and BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as PLNT 4133. May not be used for degree credit with HORT 5133 and PLNT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4223 Small Farms Crop Production and Management
Description: Principles, planning, methods, and techniques that encompass small farm operation and management. With a focus on vegetables and other local farmer's market crops and sectors, content will include small farm crop production, business model development and enterprise management. May not be used for degree credit with HORT 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4453 Turfgrass Physiology and Ecology
Prerequisites: HORT 3153, and BIOL 1113 and BIOL 1111 or PBIO 1404.
Description: A study of the relationship between turf physiology and modern turf management practices. Concepts of stand ecology with emphasis on species dominance in stressful environments. May not be used for Degree Credit with HORT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4493 Athletic Field Management
Prerequisites: HORT 3153.
Description: Principles, practices and challenges associated with natural turf- covered athletic field management; field construction, maintenance and evaluation of playing surface quality; soil physical properties influencing management and field use, construction and maintenance materials specification, and traction, hardness and ball response factors. Offered in combination with HORT 5493. No credit for both HORT 4493 and HORT 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4543 Sustainable Nursery Production
Prerequisites: HORT 1013
Description: Sustainable commercial production of field- and container-grown woody ornamental crops. Previously offered as HORT 3544. May not be used for degree credit with HORT 5543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4713 Public Garden Management
Description: Issues and methods in public garden management, including database management of collections, conservation of native species, grant writing, volunteer coordination, computerized mapping systems, master planning, and other topics pertaining to a career in public horticulture. Field trips required. May not be used for degree credit with HORT 5713.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4773 Applied Landscape Planning
Description: Concepts of landscape management, design and construction including hand graphics and AutoCad with an emphasis on residential landscape. No credit for students in the landscape architecture or landscape management programs. Previously offered as HORT 4774.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4901 Horticulture in Controlled Environments Laboratory
Prerequisites: HORT 4903 or concurrent enrollment.
Description: Hands-on experiences and virtual field trips designed to reinforce principles discussed in HORT 4903, and to develop skill sets important to successful implementation of horticultural practices in controlled environments. May not be used for Degree Credit with HORT 5901.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Hort & Landscape Arch

HORT 4903 Horticulture in Controlled Environments
Prerequisites: CHEM 1215 and HORT 3113.
Description: Designing, constructing, monitoring, and manipulating controlled environments for efficient horticultural production. May not be used for degree credit with HORT 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4933 Principles of Sustainable and Organic Horticulture
Prerequisites: HORT 1013.
Description: Principles and practices of sustainable, organic, and alternative horticultural management systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4943 International Horticulture
Prerequisites: HORT 1013.
Description: Overview of the horticulture industry worldwide. Export, marketing, and international trade issues in a global horticulture context. Individual country analyses of specific fruit, vegetable and ornamental crops. May not be used for Degree Credit with HORT 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4953 Plant Growth and Development
Prerequisites: HORT 1013 and PBIO 1404.
Description: Plant embryogenesis and organogenesis; growth and development of shoots and reproductive structures; plant developmental processes including shoot expansion and dormancy as influenced by temperature, light, and other environmental factors. May not be used for Degree Credit with HORT 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4963 Horticulture Physiology
Prerequisites: CHEM 1215, and BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404.
Description: Physiology of horticultural plants, including water relations, respiration, photosynthesis, and growth and development. May not be used for degree credit with HORT 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4973 Sustainable Landscape Management
Prerequisites: HORT 1013 or LA 1013.
Description: The ecological principles and landscape resources supporting decision-making for sustainable landscape management. Retrofits of existing development for enhanced sustainability, including equipment selection, stormwater management, use of successional landscapes, permaculture, and organic methods. May not be used for Degree Credit with HORT 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4990 Horticultural Problems
Prerequisites: Consent of instructor.
Description: Study of horticultural problems under the supervision of a faculty member. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5000 Master's Research and Thesis
Description: Research on thesis problems required of master's degree candidates. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Proposal and results seminars for graduate programs. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5110 Advanced Horticultural Problems
Description: Selected research problems in horticulture, floriculture, landscape design; nursery production, olericulture and pomology. Offered for variable credit, 1-12 credit hours, maximum of 20 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5133 Temperature Stress Physiology
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as PLNT 5133. May not be used for degree credit with PLNT 4133 and HORT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5223 Advanced Small Farms Crop Production and Management
Description: Principles, planning, methods, and techniques that encompass small farm operation and management. With a focus on vegetables and other local farmer's market crops and sectors, content will include small farm crop production, business model development and enterprise management. May not be used for degree credit with HORT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5233 Experimental Horticulture
Description: Methods of conducting research with horticultural crops, including organization and plans, field plot techniques and analysis of data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5293 Plant Response to Water Stress
Prerequisites: BIOC 3653 and PBIO 4463.
Description: Physiological ramifications of water deficit stress on cells, tissues, plants and canopies. Discussion of the soil/plant/atmosphere continuum, and avoidance and tolerance mechanisms leading to drought resistance. Photosynthesis, transpiration, and water-use efficiency and their relationship to biomass accumulation and crop yield. Same course as PLNT 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5403 Commercial Vegetable Production
Prerequisites: HORT 1013, SOIL 2124 and PBIO 1404.
Description: Commercial production and marketing of vegetable crops. May not be used for degree credit with HORT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5423 Flowering and Fruiting in Horticultural Crops
Prerequisites: PBIO 3463.
Description: Environmental, chemical and cultural factors affecting the flowering and fruiting of horticultural crops. Previously offered as HORT 5422.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5433 Postharvest Physiology
Prerequisites: BOT 3463 and BOT 3460.
Description: Physiological causes for post-harvest changes in horticultural crops (ripening and senescence) and the basis for certain postharvest treatments (precooling at harvest, controlled atmosphere storage, refrigeration, and packaging techniques). Commodity-specific postharvest phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5443 Basic Laboratory Experimentation
Description: Principles and theory of safe laboratory practice and experimentation. Techniques for developing and optimizing plant sample acquisition, extraction and analysis protocols. Theory of operation and maintenance of common laboratory instrumentation (pH measurement, solid and liquid analytical measurement, temperature measurement, spectrophotometry, HPLC, GC). Laboratory provides hands-on experience for integrated protocol development and instrument use.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5453 Turfgrass Physiology and Ecology
Prerequisites: HORT 3153, PBIO 1404.
Description: A study of the relationship between turf physiology and modern turf management practices. Concepts of stand ecology with emphasis on species dominance in stressful environments. May not be used for degree credit with HORT 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5493 Athletic Field Management
Prerequisites: HORT 3153.
Description: Principles, practices and challenges associated with natural turf- covered athletic field management; field construction, maintenance and evaluation of playing surface quality; soil physical properties influencing management and field use, construction and maintenance materials specification, and traction, hardness and ball response factors. Offered in combination with HORT 4493. No credit for both HORT 4493 and HORT 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5543 Sustainable Nursery Production
Description: Sustainable commercial production of field and container grown woody ornamental crops. No credit for both HORT 4543 and HORT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5713 Public Garden Management
Prerequisites: HORT 1013.
Description: Issues and methods in public garden management, including database management of collections, conservation of native species, grant writing, volunteer coordination, computerized mapping systems, master planning, and other topics pertaining to a career in public horticulture. Field trips required. May not be used for degree credit with HORT 4713.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 5901 Horticulture in Controlled Environments Laboratory
Prerequisites: HORT 4903 or concurrent enrollment.
Description: Hands-on experiences and virtual field trips designed to reinforce principles discussed in HORT 4903, and to develop skill sets important to successful implementation of horticultural practices in controlled environments. May not be used for Degree Credit with HORT 4901.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Hort & Landscape Arch

HORT 5903 Horticulture in Controlled Environments
Prerequisites: CHEM 1215 and HORT 3113.
Description: Designing, constructing, monitoring, and manipulating controlled environments for efficient horticultural production. May not be used for degree credit for HORT 4903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5943 International Horticulture
Prerequisites: HORT 1013.
Description: Overview of the horticulture industry worldwide. Export, marketing, and international trade issues in a global horticulture context. Individual country analyses of specific fruit, vegetable and ornamental crops. May not be used for Degree Credit with HORT 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5953 Plant Growth and Development
Description: Plant embryogenesis and organogenesis; growth and development of shoots and reproductive structures; plant development processes including shoot expansion and dormancy as influenced by temperature, light, and other environmental factors. May not be offered for degree credit with HORT 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5963 Horticulture Physiology
Prerequisites: CHEM 1215 and BIOL 1114 or (BIOL 1113 or BIOL 1111).
Description: Physiology of horticultural plants, including water relations, respiration, photosynthesis, and growth and development. Offered in combination with HORT 4963. May not be used for degree credit with HORT 4963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5973 Sustainable Landscape Management
Description: The ecological principles and landscape resources supporting decision-making for sustainable landscape management. Retrofits of existing development for enhanced sustainability, including equipment selection, stormwater management, use of successional landscapes, permaculture, and organic methods. No credit for both HORT 4973 and HORT 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 6000 Doctoral Rsch & Dissertation
Description: Research on dissertation problems required of PhD candidates in multidisciplinary programs. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

Hospitality & Tourism Management (HTM)

HTM 1103 Introduction to Hospitality and Tourism
Description: Study of lodging, food and beverage, events, tourism and other service industries from a global perspective. Emphasizes development and history, ethical issues, and professional opportunities. Previously offered as HRAD 1103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 1113 Fundamentals of Culinary Production
Description: Food production as related to theories and techniques of foods, their preparation fundamentals using a scientific and experiential approach. Focus on gastronomic basics, national safety and sanitation standards, organizational skills for food operations, standardized recipe and equipment understanding, quality control. Teamwork, communication skills and problem-solving strategies as related to food production environments. Previously offered as HRAD 1113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hospitality & Tourism Mgmt

HTM 2021 Food Safety and Responsible Service of Alcohol
Description: Principles and theory of food and beverage safety, prevention of foodborne illness outbreaks, and ensuring public health and consumer safety; includes the NRA ServSafe exam and Oklahoma responsible service of alcohol training. Previously offered as HRAD 2021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 2563 Culture, Food, and Travel (G)
Description: Exploration of people, cultures, traditions, and places through food and beverage focused travel. Local and global perspectives for understanding the increasing role that food and drink plays in society and travel. The interrelationships of locale, hospitality, economics, and the environment in creating food and drink destinations. Previously offered as HRAD 3563 and HTM 3563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 2643 Hotel and Lodging Operations
Description: The organization and administration of hotel and lodging operations including front desk, housekeeping, sales & marketing, food & beverage, and other departments. Exploration of Property Management Systems and related operations management technology. Previously offered as HRAD 3363 and HRAD 2643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 2664 Restaurant Operations
Prerequisites: HTM 1113 and HTM 2021.
Description: Experiential learning in processes and complexities of food production and front of the house service in a commercial setting with a focus on quality and profitability. Demonstrate proficiency in Point of Sale, reservation systems, and related restaurant operations/ management technology and competence in principles of food cost, menu pricing, and staffing. Documentation of the successful completion of the manager version of the ServeSafe Exam required. Previously offered as HRAD 2665 and HTM 2665.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 5 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hospitality & Tourism Mgmt

HTM 2900 Hospitality and Tourism Undergraduate Research
Description: An introduction to research in hospitality and tourism including a guided research project under the direction of a faculty member. Previously offered as HRAD 2900. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3101 Introduction to Beers of the World
Prerequisites: Proof of minimum age 21.
Description: Overview of the history of beer, brewing processes/ ingredients, developing taste profiles for different styles of beer, food pairing, and current trends in today's beer industry.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3113 People-Centric Business Skills
Description: This course emphasizes the universal applicability of hospitality-driven interpersonal skills in business contexts. Students will develop emotional intelligence, communication, and problem-solving abilities while learning to lead with empathy and integrity. Through practical applications, students will gain knowledge and skills to excel in today's service-oriented business world. May not be used for degree credit with BADM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3120 Special Events Management
Prerequisites: Instructor permission.
Description: Study of special event planning, implementation and evaluation. The interaction between the staff, customer, guests, contractors, and others necessary to implement a successful special event. Additional focus on catering through hotels, restaurants or private companies. Previously offered as HRAD 4421 and HRAD 3120. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3123 Event Planning and Production
Description: Planning, and leadership of events. Focus on working with teams, marketing strategies, budget management, program planning and integration of entertainment production into events. Previously offered as HRAD 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3201 Introduction to Mixology
Prerequisites: Proof of minimum age 21.
Description: An introduction to the art and science of mixology in creating well balanced, flavorful, and unique cocktails. Examination of the role that mixed drinks play in executing a professional and profitable bar operation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3223 International Travel and Tourism (G)
Description: The study of international travel and tourism for business and pleasure. The management of travel and tourism concepts in the hospitality industry and related businesses around the world. International travel industry financial management, technology, economic planning and policy formulation. Previously offered as HRAD 4223 and HRAD 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 3243 The Business of Tourism
Description: All aspects of the tourism business including segments of global tourism, business practices, economic impact, management as well as marketing strategies and processes. Previously offered as HRAD 2243 and HTM 2243. Same course as HTM 2243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3263 Beverage Business Management
Description: An overview of different types of beverage operations, systems, products, and responsible alcohol service. Emphasis on managerial decisions in developing & operating a facility serving alcohol beverages including facility requirements, feasibility, and marketing strategies. Previously offered as HRAD 4263 and HTM 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3283 Financial Analysis in Hospitality and Tourism
Prerequisites: ACCT 2003.
Description: Focus on the Uniform System of Accounts for hotels and restaurants, and on the analysis, presentation, and interpretation of hospitality and tourism industry financial data that affect internal decision-making, budgeting, and financial planning. Previously offered as HRAD 2283 and HTM 2283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3301 Introduction to Coffee & Tea
Description: Foundations of the original characteristics of coffee and tea from seed and leaf to cup. Discover the language for sensory analysis, assess specialty varietals, and the essential elements of brewing.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3443 Hospitality and Tourism Industry Internship
Prerequisites: BADM 2111 and instructor permission.
Description: Supervised experience in an approved work situation related to a future career in the hospitality, travel and tourism, beverage management, event and/or entertainment, or property management industries. Management and supervisory experience in multiple aspects of the organization. Previously offered as HRAD 3443.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3473 Managing The Built Environment
Description: Planning and management of the built environment with a focus on hospitality, commercial, retail, and multi-family residential venues including outdoor elements, hardscaping, parking systems and green-scaping. Includes integration and coordination of guest services with built environment management processes, maintenance and renovation, insourcing and outsourcing services, emergency/disaster planning, accessibility requirements, and alternative energy sources. Previously offered as HRAD 3473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3543 Resort Development and Management
Prerequisites: HTM 2643.
Description: Exploration of planning, development, and management of resort operations. Topics include front office, revenue management, food and beverage, finance, marketing, security and risk management, and convention & meeting services. Property management inclusive of energy, facilities, engineering, and equipment are also covered. Previously offered as HRAD 3943 and HRAD 3543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3573 Franchising
Description: Study of franchising from the perspective of the franchisor and franchisee. Focus on contemporary issues and trends in franchise concept development, franchisor-franchisee relationships, legal and contractual issues, advantages and potential risks of franchising, franchisor/franchisee selection criteria, and international franchising. Previously offered as HRAD 3573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3623 Purchasing and Cost Control for Hospitality and Foodservice
Prerequisites: ACCT 2003.
Description: Theory, processes, and complexities of procurement and cost controls for products and services utilized in hospitality industries. Emphasis on management of the purchasing process, cost control systems, and technology applications. Previously offered as HRAD 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3663 Food and Beverage in Events
Description: Planning, producing and evaluating food and beverage service in events. Examination of assessment of client needs, communication processes, pricing strategies, staffing production techniques, presentation, and service standards/styles, for food and beverage service in events. Previously offered as HRAD 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3721 Introduction to Distilled Spirits
Prerequisites: Proof of minimum age 21.
Description: An introduction to global distilled spirits (brandy, gin, rum, tequila, whiskey, vodka, and various flavored liqueurs), including different styles and production techniques. Additional focus on developing taste profiles for different spirits and current trends in the industry. Previously offered as HRAD 3721.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3783 Diversity, Equity, and Inclusion in Hospitality & Tourism (D)
Description: Concepts, contemporary issues and application of diversity, equity, and inclusion (DEI) in the hospitality and tourism industry. Focus on inclusive leadership, cultural intelligence, unconscious bias, and development of strategies to mitigate sociopsychological barriers and foster diverse, equitable, and inclusive cultures in organizations and business communities. Previously offered as HRAD 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: Diversity

HTM 3813 Principles of Property Management
Description: Characteristics of the professional business of property management including the residential, commercial, and industrial segments. Focus on the property management organization; different types of properties and management procedures; property ownership structures; leasing and landlord tenant laws; marketing and sales of properties; facility management and maintenance; landlord tenant relations and customer service.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3823 Seminar and Leadership Symposium in Real Estate and Property Management
Description: The seminar course will focus on current issues and implications for the future of property management and real estate investment including exploration of sales, marketing, real estate, conflict resolution, negotiating and communication techniques, contracts, finance, human resources, and organizational behavior. A leadership symposium will be integrated and presented by distinguished property and real estate management professionals. Students will also prepare and complete optional industry certification exams for professional accreditation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3833 Leadership Practicum in Property and Real Estate Management
Description: Application of critical thinking skills to solve problems in property and real estate management. Use of work, and other resources, to gain real-world understanding of management and leadership roles in property & real estate management. Supervised experience in a position (paid/volunteer) related to property and real estate management for at least 100 hours during the semester.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4053 Study Abroad: Contemporary Global Impacts in HTM
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparison of technology, policies, and economics will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4090 International Hospitality Studies
Prerequisites: Instructor Permission.
Description: Participation in a hospitality educational experience outside of the U.S. The international aspects of the hospitality industry especially in the country or countries included in the experience. Development of an understanding of local, regional and national customs and cultures through experiential learning. Previously offered as HRAD 4090. May not be used for degree credit with HTM 5090. Offered for variable credit, 1-18 credit hours, maximum of 18 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4093 European Travel and Tourism (G)
Prerequisites: Instructor permission.
Description: In-depth examination of local/regional/national customs and cultures, and business practices related to travel and tourism in Europe. Previously offered as HRAD 4093. May not be used for degree credit with HTM 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 4103 Legal and Ethical Issues in Hospitality, Tourism, & Gaming
Description: Examination of legal and ethical standards in lodging, food and beverage, alcoholic beverage management, travel and tourism, events, large venues and entertainment, property management, clubs, cruises and casinos. Focus on creating and maintaining business practices that limit potential liability and enhance ethical decision making. Previously offered as HRAD 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4120 Advanced Special Events Management
Prerequisites: Instructor permission.
Description: Hands-on study of special events, forums and conferences. Planning activities include conception, planning, implementation, and evaluation of an event, forum or conference including marketing, public relations and volunteer coordination. Previously offered as HRAD 4120. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4163 Hospitality and Tourism Marketing and Sales
Description: Strategies for marketing, sales and decision-making in the hospitality and tourism industries. Includes techniques and methods of customer identification, consumer behavior, competition, product, promotion, placement and pricing strategies as well as developing sales strategies to attract the target market. Previously offered as HRAD 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4183 Sustainable Tourism and Geography
Prerequisites: Junior standing.
Description: Sustainable tourism from a cultural and environmental perspective. Concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. Management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. Same course as GEOG 4443 and GLST 4443. May not be used for degree credit with GEOG 5443. Previously offered as HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4193 European Cuisine and Beverages (G)
Prerequisites: Instructor permission.
Description: In-depth examination of the historical/modern influences, and local/regional/national customs and cultures related to cuisine and beverages in Europe. Previously offered as HRAD 4193. May not be used for degree credit with HTM 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 4443 Advanced Hospitality and Tourism Internship
Prerequisites: HTM 3443 and instructor permission.
Description: Management experience in multiple aspects of a hospitality or tourism organization. Exploration of human resources, development of an understanding of organizational behavior, conflict resolution, negotiating and communication techniques. Application of critical thinking skills to solve problems. The interaction between the customer and the products and services provided by the organization. Previously offered as HRAD 4443.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4453 Revenue Management
Description: Focus on revenue management in hospitality and travel/tourism organizations with specific emphasis on pricing strategies, yield management, forecasting sales, and trend analysis. Previously offered as HRAD 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4703 Beverage Production and Distribution Systems
Description: Exploration of how major beverages of the world are produced and distributed throughout the United States and elsewhere. Examination of production systems includes farming practices, fermentation, distillation, and producer decision-making. Focus on distribution systems, especially the three-tier system, the supply chain, navigating relationships with vendors, and product selection/procurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4723 International Wine & Culture
Prerequisites: Proof of minimum age 21.
Description: Introduction to understanding wine as a cultural product that has influenced the history and culture of the world. Focus on the history, varietals, classifications, production techniques, quality factors, laws, and practices of the major wine growing regions of the world. Emphasis on wine sensory evaluation and critical analysis. Previously offered as HRAD 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: HTM Consumable Material fee of $40 applies.

HTM 4743 Beverage Operations Management
Description: A focus on the operation of a dynamic, modern, and profitable beverage operation including employee recruitment/retention/motivation, technology assisted sales/ordering, and the development of beverage/cocktail program including menu engineering, product mix, profitability, and cost/inventory controls. Also, includes a history of mixology, and distilled spirits of the world. HTM 3263 Beverage Business Management strongly encouraged.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4763 Beverage Quality Assessment & Selection
Prerequisites: Proof of minimum age 21.
Description: A focus on evaluating the sensory experience (sight/smell/taste) and assessing quality factors of non-alcohol (coffee/tea) and alcohol beverages (wine/beer/spirits). Emphasis on how to confidently select and curate high-quality beer, wine, spirits and coffee/tea selections for a beverage program. Also includes information regarding the tasting portions of industry standard certification examinations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4813 Commercial Property and Asset Management
Description: This course provides a comprehensive overview of commercial property management including office, retail, industrial, and management of a portfolio of real estate assets. Students will explore practical insights and strategies, key concepts, tools, and techniques essential for effective management of commercial properties. Topics include lease negotiations, tenant relations, management contracts, maintenance strategies, financial management, and market analysis. Through case studies, discussions, and real-world examples, students will develop the skills and knowledge to be successful.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4823 Gaming Management
Description: Principles and practices of gaming operations management including gaming regulations/control, game types (slot machines, progressive wagering, table games, poker, sports betting), different types of casino operations as well as responsible gaming and the social/cultural/economic impact of the gaming industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4833 Management and Operations of Casinos
Description: Analysis of the variations between casino management and operations and that of other similar hospitality businesses. The operational relationships between revenue generating and revenue support of entities located within casinos, such as food and beverage, entertainment, recreation, and player development will be examined. Topics also include staffing and training, managing slots and tables, and maintaining casino security. Previously offered as HRAD 4833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4850 Special Topics in Hospitality and Tourism Management
Description: Special course of study related to specific problems in hospitality/travel/tourism. Previously offered as HRAD 4850. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4900 Honors Research
Prerequisites: Spears School of Business Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in Spears School of Business. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral examination. Previously offered as HRAD 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: Honors Credit

HTM 4983 Conventions, Conferences, and Meetings
Prerequisites: Instructor permission.
Description: Planning and implementing conventions, conferences, meetings, seminars and symposia. Designing, promoting, managing and evaluating educational events, and contract management. Previously offered as HRAD 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5000 Master's Thesis
Prerequisites: Graduate standing and consent of adviser.
Description: Individual research interests in hospitality administration fulfilling the requirements for the MS degree. Previously offered as HRAD 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5030 Master's Creative Component and Independent Study
Prerequisites: Graduate standing and consent of instructor.
Description: Individual research and study having relevance to the hospitality field and a positive impact on the hospitality industry. Previously offered as HRAD 5030. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5090 International Hospitality Studies
Prerequisites: Instructor Permission.
Description: Participation in a hospitality educational experience outside of the U.S. The international aspects of the hospitality industry especially in the country or countries included in the experience. Development of an understanding of local, regional and national customs and cultures through experiential learning. May not be used for degree credit with HTM 4090. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5093 European Travel and Tourism
Prerequisites: Instructor Permission.
Description: In-depth examination of local/regional/national customs and cultures, and business practices related to travel and tourism in Europe. Previously offered as HRAD 4093. May not be used for degree credit with HTM 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5112 Graduate Education and Research
Prerequisites: Graduate students only or consent of instructor.
Description: Systematic introduction to the competencies of graduate education and research in hospitality and tourism education and management. Previously offered as HRAD 5112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5193 European Cuisine and Beverages
Prerequisites: Instructor Permission.
Description: In-depth examination of the historical/modern influences, and local/regional/national customs and cultures related to cuisine and beverages in Europe. May not be used for degree credit with HTM 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5233 Convention and Special Event Management
Description: Meeting and event design, working with industry suppliers, on-site management, post-event analysis, computers and technology, and meetings documentation. Previously offered as HRAD 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5253 Fundamentals of Gaming Management
Description: Comprehensive overview of the gaming industry in the US and globally through in-depth examination of theoretical and practical components of gaming. Focuses on gaming history, contemporary impacts and issues, as well as application of gaming industry principles in various operational divisions and specializations. Previously offered as HRAD 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5263 Applied Revenue Management in Hospitality and Tourism Management
Description: This course uses an online simulation tool to facilitate an in-depth understanding of revenue management's key concepts and applicability of revenue maximization strategies. The components of effective revenue management will be executed through entering decisions in the online simulation and their effects on overall profitability on the lodging operation will be analyzed and evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5273 Casino Operations and Management
Description: Comprehensive overview of the differences of casino operations and management compared to other similar non-gaming hospitality operations. The course will examine the operational relationship of revenue generation and revenue support from entities found within casinos such as food and beverage, entertainment, recreation, and player development. Other crucial elements such as training and staffing, slot and table management, casino security and surveillance and public perception will all be undertaken as part of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5323 Hospitality and Tourism Financial Management
Description: Key concepts, tools and techniques critical for managerial decision making in financial aspects of hospitality organizations. Previously offered as HRAD 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5383 Gaming Law, Regulations, and Compliance
Description: Comprehensive investigation of policies and procedures as well as compliance issues historically and currently governing gaming activities that have developed through legislation, common law, and various regulatory bodies. Students will work through assigned review materials and quizzes for general understanding, then discuss and collaboratively analyze that material.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5413 Hospitality and Tourism Human Resources Management
Description: Key concepts, tools and techniques critical for Hospitality and Tourism Human resource management, including diversity and inclusion in the hospitality workforce, employee development, labor issues, and maintaining a productive workforce. Previously offered as HRAD 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5423 Hospitality and Tourism Marketing Management
Prerequisites: Undergraduate marketing course.
Description: The concepts and strategies of hospitality and tourism marketing management and customer development. Previously offered as HRAD 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5443 Hospitality & Tourism Management Graduate Internship
Description: Supervised work internship with an approved employer and worksite related to a future career in the hospitality industry. Experience must include management/supervisory aspects within a hospitality organization.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5503 Big Data Analytics in Hospitality and Tourism Management
Description: An in-depth study of various topics and techniques in big data analytics, especially in the hospitality and tourism research domains. Fundamentals of data acquisition, data transformation, data visualization, and data mining via the discussion of literature and hands-on analytical activities. Concepts, methodologies, techniques, and related software packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5513 Hospitality and Tourism Strategic Management
Description: Focus on strategic decision making in hospitality and tourism organizations. Examination of the processes by which managers strategically position the organization and allocate resources to maximize its economic value in uncertain, dynamic, and competitive environments. Previously offered as HRAD 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5813 Research Methods and Analytics in Hospitality and Tourism
Description: Scientific methods and current research methodologies and analytical and data visualization techniques as applied to problems in hospitality and tourism management. Proposal planning, research design, statistical use and interpretation, and research reporting. Previously offered as HRAD 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5850 Special Topics in the Hospitality and Tourism Industry
Description: Special topics related to the hospitality and tourism industry. A problem-solving technique to design the research model and investigative procedures. Presentations to faculty, students and industry professionals at specialized workshops with research, instructional and industry project components. Previously offered as HRAD 5850. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5870 Current Issues in the Hospitality and Tourism Industry
Description: Special recurring problems in the hospitality and tourism industry. Broad perspective of these issues and their application to the industry. Critical thinking skills to solve operational dilemmas. Previously offered as HRAD 5870. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6000 Doctoral Dissertation
Prerequisites: Consent of major professor.
Description: Research in hospitality administration for the PhD degree. Previously offered as HRAD 6000. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6113 Hospitality and Tourism Education
Prerequisites: Doctoral degree students only or consent of instructor.
Description: Theoretical and practical components of hospitality and tourism education with emphasis on universities, community colleges and vocational schools. Previously offered as HRAD 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 6713 Contemporary Hospitality and Tourism Theory
Prerequisites: Doctoral degree students only or consent of instructor.
Description: Advanced survey of both the classic and current body of knowledge in the area of hospitality and tourism management. Introduction to important works in the research area of hospitality and tourism management that will prepare students to assess fundamental research questions, opportunities, and limitations of the research. Previously offered as HRAD 6713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 6880 Doctoral Seminar in Hospitality and Tourism Management
Description: Study of the latest developments in hospitality and tourism research and management. Previously offered as HRAD 6880. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6993 Advanced Hospitality and Tourism Research
Prerequisites: Graduate level basic and/or intermediate research methods and intermediate statistics and doctoral degree student or consent of instructor.
Description: The latest advances in hospitality and tourism research theory development, modeling and research design. Focus is on improving ability to effectively develop/build a conceptual framework/model with an appropriate research design and hypotheses. Previously offered as HRAD 6993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

Human Development & Family Science (HDFS)

HDFS 1101 Relationships 101
Description: An applied course designed to actively involved students in the exploration of topics which influence the development of positive relationships. Topics include gender differences, relationship principles, family of origin and personal needs. Application to personal and professional settings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 1112 Introduction to Human Development and Family Science
Description: Exploration of the philosophy and practice of human development and family science. Previously offered as FRCD 2613.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2113 Lifespan Human Development (S)
Description: Study of human development within diverse family systems. Taught from a life span perspective. Previously offered as FRCD 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 2114 Lifespan Human Development: Honors
Prerequisites: Honors students only.
Description: Honors course critically examining the study of human development within diverse family systems. Taught from a lifespan perspective.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Honors Credit

HDFS 2123 Developmental Disabilities: Issues Across the Lifespan (D)
Description: An introduction to intellectual and developmental disabilities including issues encountered by individuals and families across the lifespan. An overview of history, theory, research, practice and policy. Assumes a basic knowledge of cultural diversity and research methods employed in human development. Field work and engagement with individuals with intellectual disability is an integral component of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity

HDFS 2133 Introduction to Aging Services
Description: Introduction to aging programs, services, and community resources to assist older adults and their family members. Additional focus on personal, academic, and professional development in preparation of an aging service career. Community engagement through a service learning project with a local aging service agency or care center.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2211 Early Childhood Field Experience I
Prerequisites: Concurrent enrollment in HDFS 2243 and HDFS 2233.
Description: Field experience working with children ages birth through age five. Observation of children in classroom contexts; design and implementation of age-appropriate activities with children.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 2213 Human Sexuality and the Family (DS)
Description: Sexual development emphasizing personal adjustment and interaction with family and culture. Previously offered as FRCD 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity, Society & Human Behavior

HDFS 2223 Foundations in Early Childhood Education
Prerequisites: HDFS 2113.
Description: Historical background of the profession and its future. Opportunities in early childhood as a professional. Developing an awareness of appropriate contexts for learning through realistic experiences in the early childhood classroom. Professional Education requirements introduced. Previously offered as FRCD 2100.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 2233 Development of Creative Expression, Play and Motor Skills in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 2243 and HDFS 2211.
Description: Consideration of appropriate experiences in the areas of play, art, music and motor skills for young children from birth through eight years of age with an emphasis upon such experiences as a curricular base in early educational group settings. Observation and participation experiences with young children. Previously offered as FRCD 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2243 Infant-Toddler Programming
Prerequisites: Concurrent enrollment in HDFS 2211 and HDFS 2233.
Description: Program planning, implementation and evaluation of developmentally appropriate programs for infants and toddlers. Directed observation and participation in infant and toddler programs. Previously offered as FRCD 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2303 The Family Meal
Description: Contextual analysis of family meal time using a bioecological approach to address social, emotional, and cultural diversity in family food preferences and consumption, transmission of dietary habits and behaviors across multiple family generations, and policies, programs, and interventions that impact accessibility and sustainability of nutritional health and well-being among families aging and developing across the human life course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2433 Romance, Love, and Marriage (S)
Description: Theory and research on the formation and development of interpersonal relationships and romantic attachments from dating through courtship and marriage. Scientific insights on building, maintaining, and preserving a healthy love life and marriage. Previously offered as HDFS 3433, HDFS 3143, FRCD 3433, and HIDC 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 2453 Management of Human Service Programs
Description: Designing and managing human service programs: planning, needs assessment, program hypothesis, grant writing, developing human resources, budget management, monitoring and evaluation. Emphasis on accountability. Previously offered as HDFS 3453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2523 Professional Skills in Human Services
Description: Development of professional skills transferable across human services. Including, but not limited to leadership, professional communication, information management, partnership development, networking, advocacy, and professional ethics. Previously offered as HDFS 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2850 Special Unit Courses in HDFS
Description: Various units taught by specialists in Human Development and Family Science. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 3021 Topics in Early Childhood Education
Description: Current selected problems or topics in early childhood education which influence individual and family risk and resiliency, including NCLB, current legislative issues, policy issues and other topics that are of interest and importance to students enrolled during the semester.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3023 Child Development - Birth to 3
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Major theories and research on development from birth to age 3 including growth patterns, influences of disabilities and risk factors, environmental factors and their effects on attachment styles, language acquisition, brain development, cognitive development, social-emotional development, and perceptual and sensory motor skills. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3024 Literacy Assessment and Instruction in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 4313 and HDFS 4323 and HDFS 4363. Full Admission to Professional Education.
Description: Developmentally appropriate assessment and instructional practices to meet language and literacy needs of children, age birth to 8 years. Based on a constructivist framework, formal and informal assessments will be used to inform classroom practices. Assessments consistent with SBRR, NAEYC and IRA guidelines, with a focus on performance, observation, and interviews will address literacy needs of diverse learners in the context of an EC classroom practicum.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3033 Child Development - 4 to 8
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Physical, cognitive, social/emotional and personality growth and development during early childhood. Major theories of development and current research and ideas in conjunction with historical approaches to examining growth and development in ages 4-8. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3043 Professional Development for Early Childhood Educators
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: The role of a professional as a teacher, administrator or advocate in early childhood programming. Professionalism and ethics, identifying child abuse, and applying universal precautions. Discussion of qualities of the early childhood educator role, program models, and working with children and professional colleagues. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3053 Child Guidance and Classroom Environments
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Developmentally appropriate practice in child guidance through review of current guidance methods and programs to familiarize students with successful guidance techniques. Students will develop their own approach to guidance based upon practices best suited to their own unique skills and strengths. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3063 Health, Safety And Nutrition
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Planning, promoting and maintaining healthy and safe learning/care environments, understanding childhood illnesses and establishing healthy lifestyles, first aid, and maintaining care provider's own health. Maintaining safe relationships with others, including identifying and reporting abuse, neglect, and exploitation of children. Exploration of nutrients for life and feeding, food preparation and safety policies and guidelines, food allergies and intolerances, appropriate feeding practices. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3103 Social Development and Social Studies in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 3202 and HDFS 3213 and HDFS 3223 and HDFS 3233. Full Admission to Professional Education.
Description: Developmentally appropriate social studies curriculum and instruction for young children; content selection, lesson planning, teaching methods, materials and evaluation strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3122 Introduction to Human Development and Family Sciences for Transfer Students
Description: Facilitation for students transferring from other majors or institutions of higher education to the Department of Human Development and Family Science. An exploration of the philosophy, research applications, services, careers, and options within the field of Human Development and Family Science. May not be used for degree credit with HDFS 1112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3123 Parenting (S)
Description: Examination of the fundamental issues and special topics in parent child relationships across the life span. Current theory and empirical research in multiple contexts of family, school and community. Previously offered as FRCD 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 3202 Early Childhood Field Experience II
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3213 and HDFS 3223 and HDFS 3233. Full Admission to Professional Education.
Description: Field experiences in classroom setting working with children in PreK through 3rd grade. Reflective decision making that incorporates the major content area concepts and skills involved in organizing, planning, and developing instruction in early childhood classrooms. Previously offered as HDFS 3201.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 3203 Children's Play: A World Perspective (G)
Description: An examination of children's play in contemporary international cultures. Play in children from birth through late childhood will be reviewed; social and cognitive outcomes will be analyzed as related to complex, modern world systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: International Dimension

HDFS 3213 Literacy Development in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 3202, HDFS 3223, HDFS 3103, and HDFS 3233; Full Admission to Professional Education.
Description: Theoretical and research-based rationale for integrated language arts and an interdisciplinary approach to literacy addressing writing, reading, and oral language development for children birth through age eight. Use of children's literature. Previously offered as FRCD 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3223 Mathematics and Science in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3202 and HDFS 3213 and HDFS 3233. Full Admission to Professional Education.
Description: Developmentally appropriate mathematics and science curriculum and instruction for young children; content selection, lesson planning, teaching methods, materials, and assessment strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3233 Guidance and Classroom Management in Programs for Young Children
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3202 and HDFS 3213 and HDFS 3223. Full Admission to Professional Education.
Description: Examination of early childhood classroom management and guidance models and practices, including relevant theories, influential research, and developmentally appropriate guidance strategies that facilitate the development of prosocial behaviors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3263 Curriculum Development for Children Ages Birth to 3
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Learn and utilize assessment and documentation to inform curriculum, plan and evaluate developmentally appropriate activities, and learn effective ways to share curriculum information with families for children ages 0-3. Developmental domains and content areas; issues related to diversity in family composition, culture, and individual abilities will also be addressed. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3273 Curriculum Development for Children Ages 4-8
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043.
Description: Learn and utilize assessment and documentation to inform curriculum, plan and evaluate developmentally appropriate activities, and learn about effective ways to share curriculum information with families for children ages 4-8. Developmental domains and content areas; issues related to diversity in family composition, culture, and individual abilities will also be addressed. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3283 Assessing Young Children and their Environments to Enhance Development
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Select, evaluate, and use appropriate assessment tools for children birth to age 8 using assessment data to inform decisions about teaching (environments and practice) and intervention. Emphasis on the ethical use of assessments, validity of assessments, multicultural sensitivity, and assessments for children with special needs. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3293 Understanding and Adapting for Developmental Differences
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Knowledge of disability conditions, assessment and identification, interventions in inclusive environments, and collaborations among family members and service providers. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3303 Administration and Supervision in Early Childhood Settings
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Exploration of issues surrounding the administration of early childhood programs including identification of community needs, analysis of business opportunities, evaluation and appropriate use of space and quality programming, consideration of policy and legal responsibilities, and professionalism in the field. Best practices in staff selection, training, coaching and supervision. Web based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3313 Technology And Young Children
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Electronic technology's impact on the development of young children in educational, home, and community environments and how it can be used in early childhood classrooms to enhance teaching and learning. Students will be critical thinkers and informed consumers of technology related to young children. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3323 Diversity in the Lives of Young Children and Families
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program; SOC 1113; PSYC 1113; and HDFS 2113 or equivalents.
Description: Exploration of cultural diversity in daily life and beliefs in families with young children. The focus is on U.S. families, with attention to the multiple cultures from which they come. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3333 Working with Families
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Application of an ecological model to the understanding of variation in parental roles, perspectives, relationships, approaches, and challenges. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3413 Infant and Child Development
Description: Examination of continuity and change in physical, cognitive/language, and socioemotional development from the prenatal period through early middle childhood (age nine). Diverse contexts, directed observation of infants and children. Previously offered as FRCD 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3423 Adolescent and Youth Development (S)
Description: Youth and adolescent development within the context of family, peer, school, and community relations. Focus on physical, intellectual and socio-emotional change and adaptation involving autonomy, identity, sexuality, peer-relationships, and vocational choice. Directed observation of pre-adolescent and adolescent children. Previously offered as FRCD 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 3443 Family Dynamics
Description: Foundational theories on the dynamics of family systems across the life course and within the social context. Application of evidence-based research to inform professional practice with families. Additional insight on prevention and intervention strategies to reduce risk and increase resilience in families. Previously offered as FRCD 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3513 Research Methods in Human Development and Family Science
Prerequisites: "C" or better in STAT 2013 or STAT 2023 or STAT 2053.
Description: Examination of fundamentals of scientific method as applied to research in human development and family science. Research design, sampling, and measurement. Analytical, evaluative, and interpretive skills needed to understand the professional research literature. Application of statistical analysis to research in human development and family science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3603 Family and Consumer Sciences Classroom Management and Educational Foundations
Description: Emphasis on the principles and practices of effective classroom management needed in contemporary FCS programs by Cooperative Extension Service educators and public school teachers; observation hours required. Historical and contemporary influences on the development and mission of Family and Consumer Sciences Education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3623 Field Experiences in Family and Consumer Sciences Education
Prerequisites: HDFS 3603.
Description: Supervised Family and Consumer Sciences Education field experiences specific to Cooperative Extension Service and public schools. A minimum of 60 observation hours are required.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 3813 Tech-Enabled Families
Description: Examination of how individuals and their family members adopt and use digital platforms, social media, and AI tools to communicate, monitor behaviors, and support healthy living. Special emphasis on how technology impacts physical, mental, and social development and the health and well-being of individuals and their family members across the life course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4000 Senior Thesis
Prerequisites: Consent of instructor.
Description: Supervised research for the bachelor's degree. Previously offered as FRCD 4000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4023 Practicum II in Early Childhood
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063, HDFS 4013.
Description: Guided learning experience in a professional agency that provides services to children and families. Learning experiences and projects will provide teacher candidates the opportunity to utilize and implement theories and practices learned in other ECE classes. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4036 ECCD Senior Capstone
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3273, HDFS 3283, HDFS 3293, HDFS 3303, HDFS 3313, HDFS 3323, HDFS 3333, and HDFS 4013.
Description: This course focuses on integrating, extending, critiquing, and applying the knowledge gained within the Early Child Care and Development (ECCD) degree program within the context of a unified early childhood education profession through lecture, field experience, and action research. Previously offered as HDFS 4033.
Credit hours: 6
Contact hours: Lecture: 3 Contact: 6 Other: 3
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 4313 Early Childhood Field Experience III
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4323 and HDFS 4363. Full Admission to Professional Education.
Description: Field experience in PreK through 3rd grade setting. Develop philosophical perspectives of teaching, consider effective family-teacher relationships, and connect with the wider community as a resource context for teaching and learning. Plan and teach an integrated curriculum unit. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4323 Family, School, and Community
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4313 and HDFS 4363. Full Admission to Professional Education.
Description: Examination of family theories, family relationships with schools and communities, and implications for early childhood practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4333 Early Childhood Capstone
Prerequisites: Concurrent enrollment in HDFS 4339 and full admission to Professional Education.
Description: Examination of the role of the early childhood professional in broader society contexts such as policy, advocacy, research and funding. Previously offered as FRCD 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4339 Student Teaching in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 4333, and full admission to Professional Education.
Description: A prekindergarten through grade three classroom teaching experience under the direction of a certified early childhood teacher and an early childhood education faculty member. Previously offered as HDFS 4226.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4363 Integrated Curriculum in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4313 and HDFS 4323. Full Admission to Professional Education.
Description: Develop a conceptual and applied understanding of early childhood curriculum, with an emphasis on integration across subject matter areas, differentiation, and assessment-informed instruction. Plan and implement an integrated curriculum unit. Previously offered as HDFS 3243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4373 Early Childhood Health & Well-Being
Prerequisites: HDFS 2113.
Description: Examination of issues in early childhood health and well-being, including physical health; infant and early childhood mental health; nutrition, exercise, and childhood obesity; safety; resilience; and exposure to biological and psychosocial risks that impact health. Exploration of policies and programs related to children's health and well-being, as well as identification of practical implications for promoting children's health and well-being.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4393 Neuroscience of Adversity
Prerequisites: HDFS 2113 or PSYC 1113, or equivalent.
Description: Influence of trauma and chronic stress on the brain, body, and behavior, and environmental factors contributing to resilience throughout development. Trauma-informed policies, initiatives, and interventions will also be discussed and evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4413 Successful Aging (S)
Description: Examination of unique characteristics that promote positive adult development during the second half of life. Emphasis on biopsychosocial processes during the middle and older adult years that influence physical, mental, and social development and well-being of the individual and their family members. Previously offered as FRCD 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 4423 Family Risk and Resilience
Description: Examination of selected theoretical approaches; areas of family risk; protective factors; individual and family qualities relating to resilience; and prevention and intervention strategies. Previously offered as FRCD 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4433 Family Life Education
Description: History, philosophy and principles of family life education. Design, implementation, and evaluation of family life programs for community and education settings. Community-based field observation and experience. May not be used for degree credit with HDFS 5113. Previously offered as FRCD 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4473 Policy, Law and Advocacy
Description: The study of local, state, and federal legislations, regulations, social policies, and advocacy that affect children and families. Domestic relations, child welfare, health, education, social services, employment and housing. Previously offered as HIDC 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4520 Student Teaching in Family and Consumer Sciences Education
Prerequisites: Full admission to Professional Education.
Description: Directed experience in an approved Family and Consumer Sciences classroom. Applications of methods and skills in Family and Consumer Sciences education as related to selecting, adapting, using, and evaluating curriculum materials, including experiences to meet educational goals and to facilitate learning for individual students. Experiences will also involve responsibilities with other school personnel and parents. Offered for variable credit, 6-9 credit hours, maximum of 9 credit hours.
Credit hours: 6-9
Contact hours: Contact: 6-9 Other: 6-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4521 HDFS Child and Family Services: Pre-Internship
Prerequisites: HDFS 1112 or HDFS 3122 and HDFS 2523 and EDHS 1112 or EDHS 3112, all with a "C" or better.
Description: Preparatory workshop for HDFS Child and Family Services internship.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4533 Critical Issues in Human Development and Family Science
Prerequisites: Senior standing.
Description: An examination of the place of Human Development and Family Science in the context of broader themes. An exploration of the students' specialization and its implications for an educated life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4543 Intergenerational Relationships (S)
Description: Analysis of relationship dynamics transmitted across multiple family generations. Special emphasis on adult child-older parent relations, adult sibling interactions, grandparents raising grandchildren, in-law relationships, and fictive kinship bonds. Insights on community-based services, programming and policies for multi-generational families. Previously offered as FRCD 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 4563 Internship in Child and Family Services I
Prerequisites: HDFS 1112 or HDFS 3122 and HDFS 2523 and HDFS 4521 and senior standing and consent of advisor and instructor.
Description: Supervised field experience applying HDFS knowledge and skill base. Must complete application for internship. This component of the internship includes class assignments that demonstrate application of HDFS knowledge and skill base.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4572 Internship in Child and Family Services II
Prerequisites: HDFS 1112 and HDFS 3122 and HDFS 2523 and HDFS 4521 and HDFS 4563, senior standing, and consent of advisor and instructor.
Description: Supervised field experience applying HDFS knowledge and skill base. Must complete application for internship. Previously offered as HDFS 4525.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4573 Introduction to Marriage and Family Therapy
Description: Introduction to the field of Marriage and Family Therapy (MFT). Includes theoretical foundations of the disciplines as well as assignments that demonstrate the application of the theories in a family therapy session. May not be used for degree credit with HDFS 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4583 Disabilities in the Family and Community Context
Description: Intellectual and developmental disabilities from a systemic perspective, emphasizing the role of families and communities across the lifespan. Current policy, research, and practice for community inclusion and family support. Conceptual frameworks for understanding of and practice with individuals with intellectual and developmental disabilities and families will include family systems and ecological perspectives. May not be used for degree credit with HDFS 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4713 Family Resource Management
Description: Examination of individual and family management of interpersonal, financial, workplace, social, and community resources over the lifespan. Includes and emphasis on decision making within the family system, particularly for families with issues that affect timing and balancing of resource management. May not be used for degree credit with HDFS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4750 Topics In HDFS
Prerequisites: Consent of instructor.
Description: Various units of work related to specific issues in Human Development and Family Science. Previously offered as FRCD 4750. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4793 International Families (GS)
Description: Family structures and interactions that transcend specific cultures or nationalities. Examination of specific cultural and international family forms, their social issues, and relevant human and family services to meet their needs. Exploration of topics surrounding immigrant family health and mental health, language erosion, and cultural comparisons of family beliefs, customs and practices. Previously offered as FRCD 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: International Dimension, Society & Human Behavior

HDFS 4813 Dying, Death and Bereavement
Description: Physical, psychological, emotional and social aspects to dying and death across the life course. Examination of human experiences with and responses to dying and death within various contexts such as family, medical and cultural.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4823 Family Caregiving
Description: Fundamentals of family caregiving across the life course continuum involving aging and disability, medical and mental healthcare, and legal and ethical issues. Special focus on family caregiver roles, work-life balance, access to community resources, financing of care, and self-care practices. Implications for professional practice, family therapy, community education, and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4833 Human and Family Longevity
Description: Exploring the secrets to living a long, healthy, and meaningful life. Analysis of physical, mental, and socio-cultural factors that improve human and family health and well-being, increase healthy life-expectancy, and promote human survival among individuals, within families, and across communities in United States and around the world, including longevity Blue Zones. Implications for designing services, implementing programs, and developing policies to support long-lived adults, their family members, and community resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4850 Special Courses in Human Development and Family Science
Prerequisites: Consent of instructor.
Description: Various courses related to specific issues in Human Development and Family Science. Previously offered as FRCD 4850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4900 Honors Creative Component
Prerequisites: College of Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in College of Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral exam. Previously offered as FRCD 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Honors Credit

HDFS 4913 Instructional Methods in Family and Consumer Sciences
Description: Development of Family and Consumer Sciences Education instructional materials for both Cooperative Extension Service and public school settings. Observation hours required. May not be used for degree credit with HDFS 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4950 Research Practicum in HDFS
Prerequisites: Consent of instructor.
Description: Hands-on research experience under the direction of faculty members in various human development and family science topics. Graded pass/fail. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5000 Master's Thesis
Description: Research in HDFS for MS degree. Previously offered as HDFS 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5013 Assessment for Aging Research
Description: State-of-the-art knowledge and experiential field-based application of observational skills, interviewing techniques, online survey applications, and clinical diagnostic tools used to screen, assess, and study the biological, psychological, and social functioning of older adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5023 Introduction to Marriage and Family Therapy
Description: Introduction to the field of Marriage and Family Therapy (MFT). Includes theoretical foundations of the disciplines as well as assignments that demonstrate the application of the theories in a family therapy session. May not be used for degree credit with HDFS 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5043 Technical Writing in HDFS
Description: Overview of writing in HDFS research. Topics will include literature reviews and APA formatting. Writing assignments will focus on conference abstracts/presentations, short and long literature reviews, empirical articles, and manuscript reviews.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5053 Gerontechnology
Description: This course takes an interdisciplinary approach to the understanding of the biological, environmental, and social spheres where technology and gerontology meet. Topics include the interrelationship between population dynamics and technological change, technological research and devices that may improve older adults' lives, particular issues for rural communities, and the social and cultural meanings, challenges, and benefits of technologies designed for older adults and their care providers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5083 Disabilities in the Family and Community Context
Description: Intellectual and developmental disabilities from a systemic perspective, emphasizing the role of families and communities across the lifespan. Current policy, research, and practice for community inclusion and family support. Conceptual frameworks for understanding of and practice with individuals with intellectual and developmental disabilities and families will include family systems and ecological perspectives. May not be used for degree credit with HDFS 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5110 Directed Study in HDFS
Description: Directed individual study in human development and family science. Offered for variable credit, 1-9 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5112 Computer Applications in HDFS Research
Description: Creating variable codebooks, data coding, data entry, variable specifications and data manipulation, merging files, and basic analysis using SPSS software. No computer experience necessary. Previously offered as FRCD 5112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5113 Family Life Education
Prerequisites: HDFS 2113 and HDFS 3123 and senior standing.
Description: Philosophy and principles of family life education. Planning, implementing, and evaluating family life programs in community and education settings. Field experience. May not be used for degree credit with HDFS 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5123 Research Methods and Design in HDFS
Description: Research processes, design, methods, and program evaluation in human development and family science. Application of research tools and methods to investigate theoretical, empirically-based, or field-based research issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5133 Research Methods in HDFS II
Prerequisites: HDFS 5123.
Description: The steps involved in writing a research proposal, including writing a literature review, research goals, and hypotheses. Developing procedures and measures used to test the hypotheses. How to compute and interpret statistical analyses common to thesis projects (e.g., internal consistency, descriptive statistics, ANOVAs, correlations, and regressions).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5153 Policy in Human Development and Family Science
Description: Critical analysis of approaches to and models of policy in Human Development and Family Science. Examination of policy analysis and evaluation, development, advocacy, and implementation of state and federal policy and legislation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5160 Master's Creative Component
Prerequisites: HDFS 5253, HDFS 5293, HDFS 5513 or HDFS 5523 or equivalent and consent of instructor.
Description: Creative application of student's knowledge to solve a problem of interest in HDFS. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5163 Master's Capstone in HDFS
Description: Development and implementation of a capstone project related to an area of human development and family science. Interfaces with field experience and involves the integration of theory, research, and application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5173 Program Design, Implementation, and Evaluation in Human Development and Family Science
Prerequisites: Online Section Admission to the HDFS Family and Community Services GPIDEA Graduate Program; Campus-based Section Admission to the HDFS Graduate Program or consent of instructor.
Description: An exploration of the principles and methods of program design, implementation, and outcome evaluation of family and community programs. Previously offered as HDFS 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5183 Practicum in Developmental and Family Sciences Research
Prerequisites: Admission to graduate study in HDFS, nine hours of graduate credit in HDFS, and consent of instructor.
Description: Supervised research experiences in human development and family sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5193 Reflective Practice
Description: An exploration of the principles and methods of reflective practice. Reflective journaling and group interactive dialogue based on the application of theoretical models. Supervised field experiences in community settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5203 Family Systems
Description: Research and theory related to family functioning throughout the life cycle, especially financial decision making during crisis and conflict. Factors that shape family values, attitudes and behaviors from a multicultural perspective. New and emerging issues critical to family functioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5213 Lifespan Development
Prerequisites: Online GPIDEA Section Admission to the HDFS Family and Community Services GPIDEA Graduate Program. Campus based Section Admission to the HDFS Graduate Program or consent of instructor.
Description: An examination of human development including the cognitive, social-emotional, motor, language, and moral domains from both a lifespan and a bio-ecological perspective. Previously offered as FRCD 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5223 Resilience in Individuals and Families
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: Exploration of resilience approaches to the study of families and human development across the life cycle. Web-based instruction. Previously offered as 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5233 Infant Mental Health
Description: Foundations of infant mental health theory, research, and practice. Includes the familial context of children's early development and the importance of infant-caregiver relationships, early intervention, assessment, and reflective practice. Emphasis is placed on the application of infant mental health principles across settings and disciplines focused on early childhood and families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5243 Infant and Early Childhood Development and Attachment
Description: Survey of research and theory pertaining to infant and early development and attachment. Content includes cognition and learning, social and emotional development, and assessment. An emphasis is placed on attachment and implications for practitioners working with young children and their families. Previously offered as FRCD 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5253 Theory and Research: Social and Emotional Development
Description: Research and theory pertaining to social and emotional development, including attachment and family context, social interaction, friendships and temperament. Incorporates applications to policy and practice. Previously offered as HDFS 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5263 Theory and Research: Cognitive and Language Development
Description: Research and theory pertaining to cognitive and language development including environmental influences and family influences, attention and memory, problem solving, and social cognition. Incorporates applications to policy and practice. Previously offered as HDFS 6243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5273 Parent Education
Prerequisites: Consent of instructor.
Description: Parent-child relations, parenting strategies, and other major components of empirically validated parent education programs that lead to certification. Supervised practice. Previously offered as FRCD 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5283 Developmental Disabilities
Description: Overview of contemporary research, theory, practice, and policy in the field of developmental disabilities with a primary focus on individuals with intellectual disability and their family members. Previously offered as HDFS 6373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5290 Practicum
Prerequisites: Consent of instructor.
Description: Supervised experience in various settings relevant to human development and family sciences. Previously offered as FRCD 5290. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5293 Human Development Theory
Description: Examines theories and models of human development in a family context using a lifespan perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5313 Creativity and Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology program.
Description: Developmental and pathological changes in the brain that can lead to changes in creative output over time. Hands-on experience and direct association with older adults to grow an appreciation for creativity produced and inspired by older people. Provides experiences for development of art programs for older adults. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5323 Issues in Early Childhood
Description: Systematic examination and in-depth reflection on selected issues and trends in early childhood education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5333 Early Childhood Education History and Theory
Description: The history of early childhood education and theoretical approaches for planning educational programs and learning experiences for young children. Previously offered as FRCD 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5343 Developmental Assessment and Interventions
Description: Applications of qualitative and quantitative approaches to observation and developmental assessment and intervention strategies for students preparing to become specialists or practitioners working with children and families, including early childhood educators, child and parenting practitioners, and human service practitioners. Previously offered as FRCD 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5353 Diversity in Early Childhood
Description: Exploration and critical review of the state of early childhood programming with emphasis on research, theory, and policy making that bear on current diversity and multicultural issues in practice. Previously offered as FRCD 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5363 Early Childhood Development and Education
Description: The interaction of biology, family, culture, and extended environment on children's emotional, social, and cognitive development during the early childhood years. The implications of regularities and diversity in development for teaching and learning and on principles of educational practice to enhance development. Previously offered as FRCD 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5373 Early Childhood Administration
Description: Examination of the administration, management, and supervision of programs for young children. Legal, social, and economic conditions affecting programs. Previously offered as FRCD 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5400 Professional Seminar in Gerontology
Description: An integrative experience for gerontology students designed to be taken near the end of the degree program. By applying knowledge gained in earlier course work, students strengthen skills in ethical decision-making and behavior, applying these skills in gerontology-related areas such as advocacy, professionalism, family and workplace issues. Students from a variety of professions bring their unique perspectives to bear on topics of common interest. Web-based instruction. Offered for fixed credit, 3 credit hours, maximum of 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5403 Foundations in Integrative Aging Studies
Description: This course introduces foundational concepts to the interdisciplinary field of gerontology and aging studies, including: core theories of adult development and aging, how to be critical consumers of aging research, developing writing and other professional skills, and exploring career options in aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5411 Ethics and Aging
Description: Analysis of ethical issues for the aging population. Critical examination of various ethical issues from legal, psychological, social, and financial perspectives. Enrollment requires attendance of the one-day, Oklahoma Ethics and Aging Conference.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5413 Contemporary Perspectives in Adult Development and Aging
Description: Biopsychosocial dimensions of human aging from a lifespan development perspective with an integrative perspective that (a) considers the impact of early development and socio-historical influences on late life development; (b) emphasizes aging processes across diverse groups and contexts, and (c) identifies pathways to optimal functioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5423 Research Perspectives in Gerontology
Description: Critical review of gerontological literature. Special emphasis on current knowledge related to research methodologies, measurement applications, and clinical interventions used to study age-related processes and outcomes. Previously offered as FRCD 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5433 Theories of Aging
Description: Addresses the historical, contemporary and interdisciplinary basis of aging theory. Biological, psychological, sociological and human developmental conceptualizations of aging are critically assessed. Emphasis is placed on conceptual models, as well as theoretical development and application within gerontological research and the field of aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5443 Interpersonal Relationships
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of interpersonal relationships in context, including theoretical perspectives, research methods, relationship forms, and relationship processes. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5453 Aging in the Medical Context
Description: Orients students to the unique issues related to health and the health system for individuals in later life. A particular focus is placed on health programs, the role of medical personnel and tasks of family members as older persons face health issues and decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5463 Biological Principles of Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Introduction of basic biological principles that govern aging. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5470 Developments and Innovations in Human Development, Family Science, and Early Childhood Education
Description: Analysis of current developments and innovative practices in one or more of the specified areas. Emphasis upon evolving concepts with implications for programs serving societal needs in these areas. Previously offered as FRCD 5470. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5473 Seminar in Long-Term Care
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Topics of interest for those in leadership roles in long-term care facilities, or senior living organizations. Draws on expertise of leaders in the field. Case studies are used to understand application of the material. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5483 Aging Network Seminar
Description: Orientation to community-based aging services and programs for older adults with consideration of professional ethics, state and federal legislation, and long-term care advocacy. Additional emphasis on career networking with aging service practitioners and providers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5493 Aging and Diverse Families
Description: Examination of contemporary family theories, contexts, behaviors, and policies impacting older adults. Special emphasis on family inclusion, diversity, and equity as it relates to family dynamics and transitions, intergenerational relationships from mid-life into old age, and governmental policies, professional ethics, and caregiving practices concerning older adults and their families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5503 Family Diversity
Description: Examination of theory and research on diversity in families such as race, ethnicity, age, sexual orientation, gender, socioeconomic status, disability, or religion. Emphasis on effectively addressing family diversity in systemic assessment, practice, and policy. May not be used for degree credit with CPSY 5503 or PSYC 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5513 Issues in Family Science
Description: Current and classic literature in family studies. Consideration of philosophical bases and current research issues relevant to the family as a field of study. Previously offered as FRCD 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5523 Family Theory
Description: Foundation of theoretical frameworks and processes in family science. Overview of the interface between theory, research, and application in family science. Previously offered as FRCD 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5533 Perinatal and Reproductive Health
Description: Examination of perinatal, family planning, and reproductive health issues, programs, services, and policies. Emphasis on empirically-based interventions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5543 Family Crisis and Trauma
Description: Strategies for helping families deal with trauma and various family crises including illness, death and divorce. Focus on dealing with these from a family systems approach. Previously offered as FRCD 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5553 Perspectives on Parenting and Parent Education
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of theories, models, methods, research, and skills related to parenting and parent education. Web-based instruction. Previously offered as FRCD 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5563 Community and Family
Prerequisites: Admission to the HDFS Graduate Program.
Description: Examination of current research and theory in the interactions of families and communities. Emphasis on empirical strategies for intervention to address community and family-based problems. Previously offered as HDFS 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5573 Adolescent in Family Context
Description: Physical, social, emotional and intellectual development of adolescents within the context of family relationships. Exploration of research and theory as it relates to adolescent development and parent-adolescent relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5583 Human Sexuality
Description: Understanding human sexuality within a relational and developmental perspective, including physiological and psychosexual development and response, sexual relationships, sexual dysfunctions, treatment processes, and educational programming. Previously offered as FRCD 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5593 Sexuality & Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Understanding of issues regarding sexuality and aging. Normative aspects of sexuality in later life and issues that arise that impact sexuality such as chronic illness, cognitive decline, and functional limits. Perspectives of aging persons who are active and independent in the community, to those who live in a variety of care settings. An interdisciplinary perspective on the interactions of the biological, psychological, social influences that shape our understanding of sexuality in later life. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5603 Pre-Practicum in Marriage and Family Therapy: Counseling Skills
Prerequisites: Admission to the marriage and family therapy specialization and consent of instructor.
Description: Pre-clinical experience for students in the marriage and family therapy (MFT) specialization, emphasizing counseling skills and structured observations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5612 Pre-Practicum in Marriage and Family Therapy: Group Processes
Prerequisites: Admission to marriage and family therapy specialization and consent of instructor.
Description: Pre-clinical experience for students in the marriage and family therapy specialization emphasizing group processes, designing and running therapy groups. Previously offered as FRCD 5612.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5613 Theoretical Models of Marriage and Family Therapy
Description: An introduction to the historical context of marriage and family therapy. An overview of the major schools of marriage and family therapy and emerging models. Previously offered as FRCD 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5623 Systems Theory and Applications to the Family
Description: Examination of the cybernetic roots and terminology used with general systems theory providing an understanding, appreciation and integration of the role of "systems" approaches to family theory and clinical practice. Previously offered as FRCD 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5633 Couples Treatment in Marriage and Family Therapy
Prerequisites: Graduate standing or consent of instructor.
Description: Focus on assessment of couples and the systemic interventions available to address common couple issues. Pre-marriage, divorce and remarriage, sexuality, domestic violence, infidelity, and gender. Previously offered as FRCD 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5643 Child and Adolescent Treatment in Marriage and Family Therapy
Prerequisites: Graduate standing or consent of instructor.
Description: An overview of the issues surrounding children and adolescents in marriage and family therapy including child abuse and neglect, drug abuse, oppositional behaviors, ADHD, and family structures and hierarchies. Assessment and treatment methods. Strategies for engaging families. Previously offered as FRCD 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5653 Systemic Approaches to Psychopathology and Psychopharmacology
Prerequisites: Graduate standing or consent of instructor.
Description: Overview of major mental disorders and other conditions that maybe the focus of clinical mental health treatment. Treatment issues and an introduction to psychopharmacology. Previously offered as FRCD 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5663 Professionalism and Ethics in Marriage and Family Therapy
Prerequisites: Graduate standing and consent of instructor.
Description: The development of the professional attitude and identity of a marriage and family therapist. The AAMFT Code of Ethics, family law, ethnicity, and gender issues, as related to the practice and profession of marriage and family therapy. Previously offered as FRCD 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5673 Family Dynamics of Addiction
Prerequisites: Graduate standing and consent of instructor.
Description: An examination of the theory and research related to addictive behaviors within couple and family relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5683 Spirituality and Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Spirituality in later life from developmental, ethical, multicultural, and applied perspectives. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5690 Marriage and Family Therapy Practicum
Prerequisites: Admission to the marriage and family therapy program and consent of instructor.
Description: Supervised clinical experience for students in the marriage and family therapy specialization. Previously offered as FRCD 5690. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5693 Child Treatment Practicum in Marriage and Family Therapy
Prerequisites: Admission to the marriage and family therapy program and consent of instructor.
Description: Supervised clinical experience focusing on the treatment of children within a family context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5703 History and Philosophy of Family and Consumer Sciences in Cooperative Extension
Prerequisites: Admission to the IDEA HDFS Family and Consumer Sciences Education MS program.
Description: Focus on the historical and philosophical foundations of Cooperative Extension, particularly the Family and Consumer Sciences programs and 4-H youth development programs. Designed for individuals who are currently working or who plan to work in Family and Consumer Sciences Cooperative Extension programs at the county, district, state, and/or federal level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5713 Individual and Family Resource Management
Description: Survey course of personal finance and family resource management literature to provide an overview of how individuals and family members develop and exercise their capacity to obtain and manage resources to meet life needs. Resources include the self, other people, time, money, energy, material assets, space, and environment. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5723 Socioemotional and Cognitive Well-being Throughout Adulthood
Description: This course addresses cognitive, social, and emotional health in adulthood and later life including typical and atypical changes such as wisdom, dementia, coping, and depression. Contrasting theoretical frameworks and considering positions of access and resilience, students will examine personality, mental health, and cognitive and brain functioning during adulthood and review methods to enhance psychological health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5733 Implementation of Community Programs for Older Adults
Description: This course addresses theoretical and practical aspects of community-based efforts to influence the well-being of older adults. Examines literature from gerontological, prevention science, human sciences, and community health approaches. Provides an overview of the program development, implementation, evaluation, and management of aging-related programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5750 Seminar in Human Development and Family Science
Description: Current research in human development and family science. Critical study of classic and current research. Previously offered as FRCD 5750. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5753 Leadership and Management of Community Service Programs
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of leadership and management concepts related to the effective administration of community-based agencies. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5763 Adult Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Development, administration, and evaluation of Family and Consumer Sciences programs focused on adult learners. Applications for Cooperative Extension are highlighted.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5773 Family Dynamics and Addiction Treatment
Prerequisites: HDFS 5673.
Description: Research, theory, and working with families with addiction across social contexts such as culture. Addresses techniques of prevention, intervention, family treatment, and recovery in individuals and family systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5783 Methods of Statistical Analysis in HDFS 1
Description: An overview and application of basic statistical concepts, models, and methods for the quantitative analysis of development and change. Course topics to include descriptive statistics, hypothesis testing, analysis of variance, chi-square, t-test, and bivariate correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5793 Methods of Statistical Analysis in HDFS 2
Prerequisites: HDFS 5783.
Description: Quantitative models of development and change derived from empirical research utilizing multivariate research design and procedures. Course topics to include multivariate regression techniques for experimental and non-experimental research in human sciences research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5803 Critical Science Issues in Family and Consumer Sciences Education
Prerequisites: Admission to the IDEA HDFS Family and Consumer Sciences Education MS program.
Description: Focus on critical science as a theoretical framework and as a practical/rational process for addressing significant and complex problems facing families. Application of principles of critical science to Family and Consumer Sciences Education professional practice and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5810 Current Issues in Family and Consumer Sciences Education
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Analysis of current issues specific to Family and Consumer Sciences Education. Web-based instruction. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5813 Practicum in Human Development and Family Science
Prerequisites: Admission to graduate study in HDFS, 9 hours of graduate credit in HDFS, and consent of instructor.
Description: Supervised experiences in child development, and family services or health-related settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5823 History and Philosophy of Family and Consumer Sciences Education
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Historical, philosophical, and legislative bases of Family and Consumer Sciences Education in Cooperative Extension Service, public schools, and higher education. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5833 Occupational Programs in Family and Consumer Sciences
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Planning and implementing occupational Family and Consumer Sciences programs and courses. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5843 Reading in the Content Areas of Family and Consumer Sciences Education
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Incorporating reading skills in Family and Consumer Sciences Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5853 Adolescent Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Exploration of adolescent cognitive, physical, social and emotional characteristics, with application to providing group and individual learning experiences in Cooperative Extension Service and public school settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5863 Exceptional Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Strategies for working with youth, adolescent, and adult exceptional learners in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5873 Technology in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Incorporation of technology applications in Family and Consumer Sciences Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5883 Family and Consumer Sciences in a Pluralistic Society: Foundations and Issues
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Discussion of contemporary issues within the context of multicultural influences and cultural diversity in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences settings. Critique of instructional materials and resources for Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5893 Addressing Family Issues and Public Policy Through Family and Consumer Sciences Education
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Assessment of how Family and Consumer Sciences Education professionals can impact family and community issues. The role of the educator in critically examining these issues through FCS programs. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5903 Instructional Methods in Family and Consumer Sciences
Description: Development of Family and Consumer Sciences Education instructional materials for both Cooperative Extension Service and public school settings. Observation hours required. May not be used for degree credit with HDFS 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5913 Foundations and Principles of Family and Community Services
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: An introduction to the field of family science and related professions that involve working with individuals and families in communities. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5923 Dynamics of Family Interaction
Prerequisites: Admission to the Great Plains IDEA Graduate Program.
Description: An examination of theories of family function and dysfunction, techniques of assessment, and models of family intervention. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5943 Development of Instructional Materials for Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Development of individual and group materials for youth, adolescent, and adult Family and Consumer Sciences programs in Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5953 Research Experience in Family and Consumer Sciences
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Development of a research project related to Family and Consumer Sciences in a Cooperative Extension Service, public school, or higher education setting. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5963 Evaluation and Assessment in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Procedures for appraisal of individual growth and achievement in all subject areas in Family and Consumer Sciences Education for Cooperative Extension Service, public school, and higher education settings. Development of evaluative instruments for cognitive, affective, and psychomotor learning. Techniques for interpretation of data. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5973 Administration of Family and Consumer Sciences Education Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Emphasis on educational leadership and related issues in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5983 Techniques of Supervision in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Philosophy, responsibilities, and techniques for supervising in Family and Consumer Sciences Cooperative Extension Service, public school and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5993 Special Topics in Family and Consumer Sciences Education: 4-H and FCCLA
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Techniques for developing and managing 4-H and FCCLA programs as part of Cooperative Extension Service and public school Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Research in education and human sciences for the PhD degree under supervision of a graduate faculty member. Previously offered as FRCD 6000. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6100 Doctoral Seminar in Human Development and Family Science
Description: Selected topics in human development and family science focusing on current theory, research, or application. Previously offered as HDFS 6101. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6110 Doctoral Directed Study in HDFS
Prerequisites: HDFS 5253, HDFS 5293, HDFS 5513, HDFS 5523 or equivalent and consent of instructor.
Description: Doctoral level directed individual study in human development and family science. Previously offered as FRCD 6110. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6112 Teaching Seminar in Human Development and Family Science
Description: Introduction to teaching about development and relationships in higher education. Students will learn how to develop syllabi, present material, create innovative assignments, assess student work, and manage conflicts and difficult discussions in the classroom.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6113 Professional Development in HDFS
Description: Systematic introduction to the department faculty and research, doctoral program requirements and expectations and aspects of career development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6121 Teaching Practicum in Human Development and Family Science
Description: Application of the theories and methods learned in HDFS 6112, and receive regular peer and mentor observation and assessment of classes. Previously offered as HDFS 5190.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6123 Risk and Resilience in Human Development and Family Science
Prerequisites: HDFS 5213 and HDFS 5513.
Description: Integration of current research and theory in human development and family science to address current issues in individual and family risk and resilience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6133 Advanced Research Methods in Human Development and Family Science
Prerequisites: One course in research methods and one in statistics.
Description: Research design and analysis of data appropriate to the areas of human development and family science. Previously offered as FRCD 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6143 Structural Equation Modeling for HDFS Applications
Prerequisites: HDFS 6133, REMS 6013 or equivalents.
Description: Introduction to structural equation modeling (SEM) with applications to longitudinal and grouped data typical of research in Human Development and Family Science. Includes elementary matrix algebra, measurement models (factor analysis), and latent path models, such as growth curve models. Applications using appropriate statistical software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6153 Multilevel Modeling for HDFS Applications
Prerequisites: HDFS 6133 and REMS 6013 or equivalents.
Description: Introduction to advanced statistical methods for analyzing longitudinal and grouped data. Multilevel modeling is emphasized, with brief introductions to other advanced statistical procedures, such as survival analysis and developmental trajectory analysis. Models include occasions nested within persons and persons nested within groups. Applications using appropriate statistical software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6190 Research Internship
Prerequisites: Consent of Instructor.
Description: Special research studies under the supervision of a graduate faculty member. Previously offered as FRCD 6190. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6223 Risk and Resilience in Human Development
Prerequisites: HDFS 5253 or HDFS 5293 or equivalent course.
Description: Critical analysis of research and theory on risk and resilience processes in human development across the life course. Emphasis on roles of families in enhancing resilience. Demonstration of application to selected aspects of individual development. Previously offered as FRCD 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6273 Parent-Child Relations
Description: Examination of theory and research related to parenting and the impact of parenting on the well-being of children, parents and the broader family system. Previously offered as HDFS 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6283 Seminar in Human Development
Prerequisites: HDFS 5213 and HDFS 5293.
Description: Selected topics in human development with special attention to recent research and current theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6363 Theories and Research in Early Communication Development
Prerequisites: HDFS 5213, HDFS 5223 or consent of instructor.
Description: Recent theories and research in language communication development, including receptive and active language and the relationship of language to early social and cognitive development. Previously offered as FRCD 6363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6523 Advanced Family Theory
Prerequisites: HDFS 5523.
Description: Family theory process, including logic, theory construction, and relating conceptual orientations to current research areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6553 Marital and Couple Relationships
Description: In-depth analysis of historical and contemporary research on developmental and relational processes in marital and couple relationships. Emphasis on research and theory addressing the nature, dynamics and developmental course of committed couple relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6583 Seminar in Family Science
Prerequisites: HDFS 5513 or HDFS 5523 or consent of instructor.
Description: Current research and theory in selected topics in family science. Previously offered as HDFS 6580.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6613 Contemporary Issues in Marriage and Family Therapy
Prerequisites: Admission to marriage and family therapy specialization.
Description: Critical issues facing students in the marriage and family therapy (MFT) specialization, while taking advantage of the unique expertise of clinical faculty. Professional seminar on dialogue with participants taking an active role in the learning process. Previously offered as FRCD 6613.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Discussion
Department/School: Human Dev & Family Sci

Industrial Engineering & Management (IEM)

IEM 2903 Introduction to Industrial Engineering
Prerequisites: UNIV 1111 with grade of "C" or better and Sophomore, Junior, or Senior Standing.
Description: Introduces students to enterprise/production systems from the perspective of industrial engineering. As a part of this introduction, the basic concepts and issues involved in professional practice will be discussed. Useful analytical methods and practices for collecting and working with data will be presented. Additionally, modern applications of industrial engineering practices will be introduced. After completion of this class, students will have the ability to describe and apply various industrial engineering methods in the manufacturing and service industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 2911 Lean Six Sigma
Description: Students will learn problem-solving skills to drive process improvement within various organizational settings. Learn Six Sigma methodologies, advanced techniques, and statistical tools essential for leading successful projects will be presented. After completion of the course students will be prepared to take the Six Sigma Green Belt Certification exam.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3103 Probability and Statistics for Engineers I
Prerequisites: MATH 2153 with grade of "C" or better.
Description: An introduction to key concepts and results in probability, random variables, discrete and continuous distributions, mathematical expectations, and joint probability distributions that support applications in industrial engineering and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3303 Manufacturing Processes
Prerequisites: ENGR 1322 with grade of "C" or better or ENGR 1332 with grade of "C" or better and ENSC 3313 with grade of "C" or better.
Description: Manufacturing processes used to transform new materials including metals and non-metals into finished goods. Traditional and nontraditional manufacturing processes. Introduction to CAD/CAM. Basic process selection. Metrology and measurement fundamentals.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 3403 Engineering Project Management
Prerequisites: Junior standing or Senior Standing.
Description: Engineering management and group issues involved in project planning and implementation. Topics addressed include project management methodologies and software, ethics and social responsibility, organizational structures, situational leadership, individual behavior and motivation, teamwork structures, processes, collaborative technologies, process management, organizational culture, and diversity and inclusion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3503 Engineering Economic Analysis
Prerequisites: MATH 2153 with grade of "C" or better or MATH 2133 with grade of "C" or better.
Description: Development and use of time value of money models. Bases for comparison of alternatives, including present worth, annual worth, rate of return and payout period methods. Decision-making among independent, dependent, capital-constrained and unequal-life projects. Replacement, breakeven and minimum cost analyses. Depreciation and depletion methods and their effect on corporate income taxes, leading to after-tax cash flow analysis. Introduction to financial reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3513 Economic Decision Analysis
Prerequisites: MATH 2123 with grade of "C" or better or MATH 2144 with grade of "C" or better.
Description: Quantitative evaluation of investment alternatives for non-engineering majors. The role of interest in economic equivalence and in formulating economic comparisons based on present worth, annual equivalent, rate of return and payout criteria. Accounting, depreciation and income tax considerations. Benefit-cost and cost-effectiveness analysis. Cost estimation and allowance for variance in estimates. Not available for credit in industrial engineering curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3523 Engineering Cost Information and Control Systems
Prerequisites: MATH 2144 with grade of "C" or better.
Description: Introduction to basic accounting concepts and operating characteristics of accounting systems relevant to engineering analysis and decision making. Principles of financial and managerial accounting, activity based costing, taxes and depreciation. Emphasis on interpretation and use of accounting information for decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3703 Probability and Statistics for Engineers II
Prerequisites: IEM 3103 with grade of "C" or better.
Description: An introduction to key concepts and results in statistics, including confidence intervals and hypothesis tests for the mean and the variance, analysis of variance, linear regression, correlation, goodness of fit tests and categorical data analysis that support applications in industrial engineering and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3713 Software Programming for Data Analytics
Prerequisites: ENGR 1412 with grade of "C" or better.
Description: This course introduces basic concepts and applications that are important for understanding software programming in data analytics, such as raw data manipulation, exploratory analysis, and machine learning. The primary focus in this course is on programming ideas, algorithm toolboxes, implementations and applications of data analytics methods in industrial applications (e.g., manufacturing, healthcare). Programming will be done using Python and R with a focus on real-world data analytics problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3813 Work Design, Ergonomics, and Human Performance
Prerequisites: ENSC 2113 with grade of "C" or better and IEM 2903 with grade of "C" or better and IEM 3103 with grade of "C" or better.
Description: Evaluation and design of work systems and processes employing humans. Emphasis on simultaneously achieving high productivity and employee health, safety and satisfaction.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4010 Industrial Engineering Projects
Prerequisites: Consent of school head.
Description: Special undergraduate projects and independent study in industrial engineering. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 4013 Operations Research
Prerequisites: MATH 3013 with grade of "C" or better.
Description: Introduction to operations research, analytics, and mathematical optimization with an emphasis on topics in linear, integer, and network optimization. Effective model formulation and software solution of strategic, tactical and operational problems encountered in manufacturing, and service industries. Covers the simplex method, duality theory, sensitivity analysis, branch-and bound, network simplex, and Dijkstra's algorithm. Previously offered as IEM 4014.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4020 Undergraduate Engineering Practicum
Prerequisites: Consent of IEM adviser and satisfactory completion of at least 12 hours of IEM 3000- or IEM 4000-level courses.
Description: Professionally supervised experience in real life problem solving involving industrial projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the instructor. May consist of full- or part-time engineering experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports both oral and written required as specified by the adviser. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 4103 Quality Control and Reliability Analysis
Prerequisites: IEM 3703 with grade of "C" or better.
Description: Performance excellence in an enterprise, including relationships between industrial engineering and quality control. Statistical quality control concepts to measure, monitor, diagnose, and improve performance at the enterprise level, the operational level, and the project level. Perform basic reliability analysis. Quantitative and qualitative quality tools to solve problems and capture opportunities for improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4113 Experimental Design and Analysis for Engineering
Prerequisites: IEM 3703 with grade of "C" or better.
Description: Introduces the design of experiments (DoE) methods with statistical analysis for the purpose of process/system improvement in engineering. The covered DoE methods include single-factor & multiple-factor design, factorial design, blocked design, and fractional design. The related statistical analysis including hypothesis test, analysis of variance (ANOVA), linear regression, and response surface will also be introduced with various examples in engineering. Recommended statistical software is R.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4163 Service Systems and Processes
Prerequisites: IEM 3103 with grade of "C" or better and IEM 3503 with grade of "C" or better.
Description: Design and analysis of service systems and processes from the perspective of industrial engineering and engineering management. Application of basic industrial engineering principles and tools applied to service systems. Basics of service quality and productivity, including metrics, measurement and improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4203 Facilities and Material Handling System Design
Prerequisites: IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Design principles and analytical procedures for determining facility location and location of physical assets within a facility. Introduction to material-handling concepts, technologies and methods. Considerations include production processes, product volume, material flow and information flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4383 Additive Manufacturing: Fundamentals, Processes, Applications, and Implications
Prerequisites: (ENGR 1322 with a "C" or better OR ENGR 1332 with a "C" or better OR MET 1123 with a "C" or better) AND (ENSC 3313 with a "C" or better OR MET 3343 with a "C" or better OR IEM 3303 with a "C" or better OR MAE 3123 with a "C" or better).
Description: This course covers fundamental, advanced, and emerging additive manufacturing (AM) topics. It has 4 modules: 1) AM fundamentals, 2) processes & capabilities, 3) AM applications, and 4) business & societal implications. Students gain design and process planning skills, hands-on experience with popular AM processes, learn about new applications in industries like medical and aerospace, and explore the business side of AM implementation and industry disruption. May not be used for degree credit with IEM 5383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4413 Industrial Organization Management
Prerequisites: IEM 2903 with grade of "C" or better and IEM 3403 with grade of "C" or better.
Description: Issues, concepts, theories and insights of engineering management and applications emphasizing effective performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4613 Production Planning and Control Systems
Prerequisites: IEM 4013 with grade of "C" or better.
Description: Concepts of planning and control for production and control systems. Design of operation planning and control systems. Techniques used in demand forecasting, operations planning, inventory control, scheduling, and progress control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4623 Supply Chain and Logistics
Prerequisites: IEM 3103 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Introducing basic concepts and methods in supply chain management. Developing managerial insights into supply chain strategies in the global economy. Measuring supply chain performance under dynamic market conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4713 Systems Simulation Modeling
Prerequisites: IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Simulation of discrete-event systems, including problem formulation, translation to a computer model, and use of a model for problem solution as well as concepts of random variable selection and generation, model validation and statistical analysis of results.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4723 Information Systems Design and Development
Prerequisites: Junior Standing or Senior Standing.
Description: Overview of IS/IT concepts. Systems development methodology, modeling methods, and software tools for the design and development of information systems, especially relational database applications. Data modeling using the Entity Relationship Diagram (ERD). Implementing and manipulating relational databases using SQL and MS Access. Process modeling using the UML Activity Diagram. Introduction to Enterprise Resource Planning and Geographic Information systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4783 Applied Statistical Analysis in R for Engineers
Prerequisites: ENGR 1412 with grade of "C" or better and IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: The overall goal of this course is to provide an applied overview to statistical learning for real industrial engineering problems using R programming. Topics In this course cover advanced linear and non-linear methods of statistical learning such as multivariate regression, mixed-effects regression, advanced logit regression, clustering methods, generalized additive models, tree-based methods, support vector machines. and Bayesian methods. May not be used for degree credit with IEM 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4823 Human Factors Engineering
Prerequisites: IEM 3813 with grade of "C" or better.
Description: Design-focused course that introduces students to human factors engineering and human-centered design, provides an overview of human anatomy and psychology theories, how the human body and its limitations affect engineering design, and then discuss how human factors-driven designs lead to a reduction of human error in complex systems. Topics primarily cover cognitive human factors theories including visual detection, signal detection theory, multiple resource theory, memory and decision making, human error, multitasking, cognitive limitations and how to design displays, controls, automation and other complex systems based on users' cognitive abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4913 Senior Design Projects
Prerequisites: Terminal semester only and IEM majors only and IEM 3403 with grade of "C" or better and IEM 3503 with a grade of "C" or better.
Description: Student teams work on professional-level engineering projects selected from a wide range of participating organizations. Projects are equivalent to those normally experienced by beginning professionals and require both oral and written reports. Normally taken during student's last semester of undergraduate work.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4931 Industrial Engineering and Management Seminar
Prerequisites: Senior standing.
Description: Designed to orient seniors to their professional work environment. Topics include placement procedures, resume construction, interviewing skills, professional dress, graduate school, professional societies and registration, personal management of time and money, and job-related expectations. Taught by senior faculty; utilizes outside speakers.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4953 Industrial Assessment and Improvement
Prerequisites: Senior standing and consent of instructor.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 5953 or MET 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4990 Selected Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Study of selected contemporary topics in industrial engineering and management, including operations research; quality; manufacturing systems; engineering management; enterprise systems and supply chains; facilities, energy, and environmental management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5000 Master's Research and Thesis
Prerequisites: Approval of major adviser.
Description: Research and thesis for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5003 Probability and Statistics for Engineers
Prerequisites: STAT 4033 or IEM 3103.
Description: Probability and statistical topics and methods used in various areas of industrial engineering including random numbers, probability theory, conditional probabilities, parameter estimation, confidence intervals, hypothesis testing, and regression models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5010 Industrial Engineering Projects
Prerequisites: Consent of school head and approval of major adviser.
Description: Special graduate projects and independent study in industrial engineering. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5013 Introduction to Optimization
Prerequisites: IEM 4013 or equivalent.
Description: Introduction to mathematical optimization with an emphasis on linear, integer, network, and convex optimization. Effective formulization techniques, basic mathematical and algorithmic concepts, and software solution of large-scale problems arising in the practice of operations research, industrial and systems engineering, management sciences, and analytics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5020 Graduate Engineering Practicum
Prerequisites: Consent of School Head, approval of IEM advisor, and satisfactory completion of two consecutive regular (Fall/Spring) semesters.
Description: Professionally supervised experience in a real-life problem involving authentic projects for which the student assumes a degree of professional responsibility. Activities must be approved in advance by the student's advisor. May consist of full or part-time engineering experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the advisor. All eligible IEM 5020 credit hours should be included in the Plan of Study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5063 Network Optimization
Prerequisites: IEM 5013 or equivalent.
Description: Network flows and combinatorial optimization models and algorithms with an emphasis on mathematical and algorithmic fundamentals. Covers basics of graph theory, algorithmic analysis, and complexity theory. Covers Classical Algorithms for shortest paths, minimum spanning trees, max-flow and min-cut, min-cost flows; P versus NP, traveling salesman problem, local search, metaheuristics, Christofides algorithm. Previously offered as IEM 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5103 Breakthrough Quality and Reliability
Prerequisites: IEM 5003 of equivalent.
Description: Performance excellence in an enterprise, including relationships between industrial engineering and quality control. Statistical quality control concepts to measure, monitor, diagnose, and improve performance at the enterprise level, the operational level, and the project level. Perform basic reliability analysis. Quantitative and qualitative quality tools to solve problems and capture opportunities for improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5113 Strategic Quality Leadership
Prerequisites: STAT 4013 and IEM 5003.
Description: Quality-related strategies. Critical elements that differentiate high performing organizations from their competitors. Delivering value to customers. Quality leadership, strategic planning, customer value, learning organizations, knowledge management, quality systems and business results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5123 Service Quality
Prerequisites: STAT 4013 or equivalent.
Description: Theory and application of service quality, including characteristics of services (intangibility, heterogeneity, perishability and inseparability of production and consumption), dimensions of service quality, measurement methodologies for service quality and improvement methodologies for service quality. Certification and accreditation processes for service industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5133 Stochastic Processes
Prerequisites: MATH 2233, MATH 3013, and IEM 5003 or STAT 5123.
Description: Definition of stochastic processes, probability structure, mean and covariance function, the set of sample functions. Renewal processes, counting processes, Markov chains, birth and death processes, stationary processes and their spectral analyses. Same course as STAT 5133 & MATH 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5143 Reliability and Maintainability
Prerequisites: STAT 4033 and IEM 5003.
Description: Probabilistic failure models of components and systems. Detailed study of reliability measures, and static and dynamic reliability models. Classical and Bayesian reliability testing for point and interval estimation of exponential and Weibull failures. Reliability optimization through allocation and redundancy. Fundamentals of maintainability. Previously offered as IEM 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5153 Process Design and Integration
Prerequisites: STAT 4033 or equivalent.
Description: Process design, integration, control, and improvement within and between enterprises. Analytical and systems approaches to address physical and statistical characterization of inputs, transformations, and outputs. Modeling issues, including process mapping, cause and effect analysis, and impact projection. Purpose, linkages, value, leverage, measurement, creativity and leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5203 Facility Location, Warehousing and Transportation
Prerequisites: IEM 5003 and IEM 5013.
Description: Analytical models for single and multi-facility location problems. Algorithms for network location problems including the median, center, and covering problems. Storage policies such as dedicated, randomized and class-based and their relationship to the warehouse layout problem. Order picking and routing in warehouses. Warehouse material handling and storage/retrieval systems. Overview of the Vehicle Routing Problem (VRP). Clark and Wright heuristic for the single-depot VRP problem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5350 Industrial Engineering Problems
Description: A detailed investigation into one area of industrial engineering with a required written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5383 Additive Manufacturing: Fundamentals, Processes, Applications, and Implications
Prerequisites: (ENGR 1322 with a "C" or better OR ENGR 1332 with a "C" or better OR MET 1123 with a "C" or better) AND (ENSC 3313 with a "C" or better OR MET 3343 with a "C" or better OR IEM 3303 with a "C" or better OR MAE 3123 with a "C" or better) OR equivalents.
Description: This course covers fundamental, advanced, and emerging additive manufacturing (AM) topics. It has 4 modules: 1) AM fundamentals, 2) processes & capabilities, 3) AM applications, and 4) business & societal implications. Students gain design and process planning skills, hands-on experience with popular AM processes, learn about new applications in industries like medical and aerospace, and explore the business side of AM implementation and industry disruption. May not be used for degree credit with IEM 4383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 5413 Engineering Entrepreneurship
Description: Advanced study of engineering entrepreneurship in the technical organization including: new product evaluation and selection, technology commercialization process, business plan preparation, intellectual property, patent search and discovery, new enterprise development, market analysis, and capital investment procurement strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5503 Financial and Advanced Capital Investment Analysis
Prerequisites: IEM 3503, IEM 4013, STAT 4033 or IEM 3103 or equivalent.
Description: An understanding of financial concepts and markets, and an advanced treatment of proper methods of capital project selection under risk and uncertainty. Decision making under capital rationing. Financial environment and valuing securities, representing cash flows, selecting investments, avoiding common pitfalls, evaluating timing consideration, depreciation and corporate taxation, replacement analysis, and incorporating risk and uncertainty.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5603 Project Management
Prerequisites: IEM 3403 or equivalent.
Description: A systems approach to planning, organizing, scheduling and controlling projects. The behavioral and quantitative aspects of project management. Importance of working with personnel as well as technology. Project management software utilized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5613 Integrated Manufacturing Control Systems
Prerequisites: IEM 4613.
Description: Advanced treatment of planning and control philosophies and techniques for manufacturing and production systems. Approaches focusing on demand-driven control and achieving competitive advantage through manufacturing. Material requirements planning, capacity planning, shop floor control, master scheduling, production planning and demand management. Just-in-time and the theory of constraints.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5633 Advanced Production and Inventory Control
Prerequisites: IEM 5013 and IEM 5763.
Description: Advanced concepts and quantitative techniques used in production planning and inventory control, including static and dynamic scheduling of machines and cells, deterministic and stochastic inventory control, multi-echelon supply chain management, demand forecasting, and revenue management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5683 Advanced Data Analytics in Industrial Engineering
Prerequisites: IEM 5003 with a "C" or better.
Description: The course focuses on advanced data analytics methods tailored for engineering applications. Foundational topics include probability and statistics and generalized linear regression. The course covers neural networks, deep learning, and reinforcement learning along with the interpretability of models and considerations for data-driven decision-making. The methods will be taught while solving real-world problems (such as demand forecasting, failure prediction, defect detection, healthcare analytics, etc.).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5703 Discrete System Simulation
Prerequisites: IEM 5003.
Description: Discrete-event systems via computer simulation models. Model building and the design and analysis of simulation experiments for complex systems. Application to a variety of problem areas. Use of simulation languages and related software tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5723 Data, Process and Object Modeling
Prerequisites: Graduate standing or consent of instructor.
Description: Systems development life cycle and methodology. Structured and object-oriented analysis and design techniques. Data modeling using the Entity-Relationship Diagram and IDEF1x. Data normalization techniques. Relational database implementation using SQL and MS Access. Object-oriented analysis and design using the Unified Process and the Unified Modeling Language (UML). Process modeling using the UML Activity Diagram and Petri nets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5743 Information Systems and Technology
Prerequisites: Graduate standing or consent of instructor.
Description: For current and potential engineering and technology managers. Knowledge of information systems and technology to lead the specification, selection, implementation, and integration of information technology in manufacturing and service organizations. Management issues involved in the use of information technology in organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5763 Supply Chain Strategy
Prerequisites: IEM 4613 or equivalents.
Description: Supply chain strategy including the philosophical base of business practice and the analytical base of modeling. Supply chain strategy, including key objectives and financial considerations, supply chain dynamics, supply chain performance measurement, supply chain integration, characteristics of different supply chains and supply chain performance modeling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5783 Applied Statistical Analysis in R for Engineers
Prerequisites: IEM 5003 and IEM 5013.
Description: The overall goal of this course is to provide an applied overview to statistical learning for real industrial engineering problems using R programming. Topics In this course cover advanced linear and non-linear methods of statistical learning such as multivariate regression, mixed-effects regression, advanced logit regression, clustering methods, generalized additive models, tree-based methods, support vector machines. and Bayesian methods. May not be used for degree credit with IEM 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5803 Human Factors Engineering
Prerequisites: IEM 3813 or equivalent.
Description: Design-focused that introduces students to human factors engineering & human-centered design; provides an overview of human anatomy and psychological theories, how the human body & its limitations affect engineering design & then discuss how human factors-driven design lead to a reduction of human error in complex systems. Topics primarily cover cognitive human factors theories including visual detection, signal detection theory, multiple resource theory, memory & decision making, human error, multitasking, cognitive limitations & how to design displays, controls, automation, & other complex systems based on users' cognitive abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5813 Performance Measurement Systems
Prerequisites: IEM 3813 or equivalent.
Description: Strategies and methods to define, measure, and apply individual, group- and organizational-level performance metrics in a variety of service and production contexts. Implementation and effective use of metrics. Measurement's role in a management system, managerial decision styles and preferences, operational definitions of performance, processes for identifying and applying metrics, performance measurement tools and techniques, data collection, portrayal of quantitative and qualitative information, and the role of computer technology in measurement system application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5953 Industrial Assessment and Improvement
Prerequisites: Senior standing and consent of instructor.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 4953 or MET 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5990 Special Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Study of selected contemporary topics in industrial engineering and management including operations research; quality and reliability; manufacturing systems; engineering management; enterprise systems and supply chains; facilities, energy, and environmental management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6000 Doctoral Research and Dissertation
Prerequisites: Approval of major adviser and advisory committee.
Description: Independent research for PhD dissertation requirement under direction of a member of the Graduate Faculty. Offered for variable credit, 1-15 credit hours, maximum of 30 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6033 Linear Optimization
Prerequisites: Concurrent Prerequisite IEM 5013 or consent of instructor.
Description: Mathematical theory of linear optimization and the implications for algorithm development. Fundamentals of convex analysis, polyhedral sets, development of the simplex method, Farkas' lemma, development of duality theory, sensitivity analysis, Dantzig-Wolfe decomposition, Benders decomposition, interior point algorithms. Previously offered as IEM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6043 Nonlinear Optimization
Prerequisites: IEM 6033 or consent of instructor.
Description: Mathematical foundations of nonlinear optimization theory and algorithms. Introduction to convex analysis, local/global optima, optimality conditions, and their implications for model and algorithm development. Convex functions and generalizations, Fritz John and Karush-Kuhn-Tucker optimality conditions, constraint qualifications, Lagrangian duality and saddle point optimality conditions, gradient-based and quasi-Newton methods for unconstrained optimization. Previously offered as IEM 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6053 Integer and Combinatorial Optimization
Prerequisites: Concurrent prerequisites. IEM 5063, IEM 6033, or consent of instructor.
Description: Theory, algorithms, and applications of discrete optimization. Binary, pure, and mixed-integer linear optimization formulations, relaxations; preprocessing, branch and bound, formulation strength, polynomial equivalence of separation and optimization; theory of polyhedra, convex hulls and facets, valid inequalities for pure and mixed-integer problems, lifting, perfect formulations, extended formulations. Previously offered as IEM 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6063 Optimization Under Uncertainty
Prerequisites: IEM 5013, IEM 6033, IEM 5003 or consent of instructor.
Description: Introduction to concepts, principles, and techniques for optimization under uncertainty. Formulating two-stage stochastic linear and integer programs; sample average approximation and decomposition methods; conditional value-at-risk and chance-constrained optimization; robust linear optimization, robust conic optimization, and robust multi-stage optimization; distributionally robust and data-driven optimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6110 Special Problems in Industrial Engineering
Prerequisites: Consent of school head and approval of major adviser.
Description: Special problems in industrial engineering and management under supervision of a member of the Graduate Faculty. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6123 Queuing Systems: Theory and Manufacturing Applications
Prerequisites: IEM 5003, STAT 5133 or consent of instructor.
Description: Review of probability, stochastic processes, and Markov chains. Single-server and multi-server exponential queuing models. Queuing models with Poisson arrivals and general service times. Product form queuing network models: open and closed network models, mean value analysis algorithms for closed models, and single class and multiclass models. Approximations for general single server queues and non-product form networks. Applications of queuing models in the performance analysis of transfer lines, automatic assembly systems, and flexible manufacturing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6903 IEM Doctoral Seminar
Description: The IE&M Doctoral Seminar is designed to train the doctoral student in the doctoral dissertation research process and is normally taken in the first year of the student's program. The course involves significant work outside the classroom, under the supervision of the student's research advisor. The class meetings will be used for some formal instruction on research methods/process, discussion of current research in IEM lead by select faculty, guest speakers, and presentations by students.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Graduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Industrial Engr & Mgmt

IEM 6990 Advanced Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics of interest to PhD-level students in Industrial Engineering and Management are discussed. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

Interdisciplinary Toxicology (ITOX)

ITOX 5103 Biochemical and Molecular Toxicology
Prerequisites: Graduate standing; consent of instructor.
Description: In-depth overview of biochemical and molecular mechanisms of interactions between exogenous chemicals and living systems. Transport, distribution, elimination and alteration of exogenous chemicals within the body and mechanisms whereby exogenous chemicals disrupt biochemical processes critical for cell/organ/organismal integrity and function. Same course as VBSC 5103 and CBSC 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5203 Bioinformatics
Prerequisites: MICR 3033 or BIOC 3653 or equivalent.
Description: Fundamental concepts of biological sequence information and inferential techniques to assign structure, function, and evolutionary relationship among genes and proteins. No prior programming necessary, but familiarity with computers assumed. May not be used for degree credit with MICR 4203. Same course as MICR 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5213 From Molecules to Ecosystems
Prerequisites: Graduate standing; consent of instructor.
Description: An integrated systems-based approach to toxicology from molecular, cellular, organ, organismal, and ecological perspective. Same course as CBSC 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5282 Methods of Forensic Science
Description: Advanced-level laboratory course in which students apply knowledge from earlier course work in a hands-on setting and employ fundamental techniques and methods related to forensic biology, forensic microbiology, forensic pathology, and forensic toxicology. Same course as FRNS 5282.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Dean of Veterinary Med

ITOX 5303 Organismal Ecotoxicology
Prerequisites: Consent of instructor.
Description: Comparative study of the major groups of environmental contaminants (e.g. heavy metals, PCB's, insecticides) and an introduction to the basic theories, principles and techniques associated with the study of contaminant fate and effects on organisms. Same course as ZOOL 4303 and ZOOL 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5343 Population and Community Toxicology
Prerequisites: Course in ecology strongly recommended.
Description: Examines the exposure of animals to environmental contaminants and resulting effects at the individual through community level. The dynamic nature of exposure to contaminants will be of particular interest in this course. For example, how do the natural history traits of a species either protect it from exposure, or enhance its potential for exposure to contaminants? Topics will range from the historical perspectives to ecotoxicology to study design and risk assessment. Same course as ZOOL 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5363 Principles of Toxicology
Prerequisites: A course in chemistry and physiology.
Description: Basic concepts in toxicology such as chemical partitioning, dose response, toxicokinetics, toxidynamics, and bioavailability. Particular focus on the molecular and cellular mechanisms of toxicity of a few representative natural and man-made compounds. Case studies used to understand real-life scenarios. No credit for students with credit in BIOL 4363. Same course as BIOL 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5423 Techniques in Environmental Toxicology
Prerequisites: Organic chemistry or consent of instructor.
Description: Practical understanding of modern techniques used to quantify exposure and effects of environmental toxicants. Laboratory topics include gas chromatography, HPLC, atomic absorption spectroscopy, immunoassay, and toxicity testing. Same course as ZOOL 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5523 Forensic Toxicology
Description: Introduction of fundamental aspects of forensic toxicology and emphasis on major subfields of postmortem forensic toxicology, human performance toxicology and forensic drug testing. Examination of methodologies and analyses associated with these three major subfields. Same course as FRNS 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5543 Advanced Forensic Toxicology
Prerequisites: FRNS 5523.
Description: Familiarizes the student with advanced aspects of forensic toxicology in view of current forensic toxicological trends. Covers risk assessment principles, factors in pharmacokinetics, weapons of mass destruction, and integrating concepts with current applications. Same course as FRNS 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5801 Nonclinical Drug Development
Prerequisites: Graduate standing and consent of instructor.
Description: This course will cover the basic to highly-regulated concepts in nonclinical drug development including pharmacology, pharmacokinetics, and toxicology, along with topics in chemistry manufacturing and controls. Same course as CBSC 5801.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5802 Experimental Principles and Approaches
Prerequisites: Graduate standing and consent of instructor.
Description: A review of experimental principles and approaches essential for design, conduct and analysis of research. Same course as VBSC 5802 and CBSC 5802.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 5902 Toxicology of Chemical Warfare and Chemical Terrorism
Prerequisites: Graduate standing and consent of IOR.
Description: The course will review the history and current issues related to the use of chemicals as agents of warfare and terrorism. Students will participate in weekly roundtable lectures/discussions and review publications related to various toxicological issues surrounding these chemicals. Same course as CBSC 5902.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Veterinary Med

ITOX 6223 Xenobiotic Disposition
Prerequisites: Graduate standing; consent of instructor.
Description: Discussion of xenobiotic absorption, distribution, metabolism, and excretion. Analysis of xenobiotic concentration-time data using pharmacokinetic software. Same course as CBSC 6223.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Dean of Veterinary Med

ITOX 6543 Environmental Toxins of the Brain
Prerequisites: Consent of instructor.
Description: Introduces the fundamental aspects of neurotoxicology using both cellular and molecular approaches in neurochemistry and toxicology. Same course as BIOM 6543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

ITOX 6820 Selected Topics in Biochemistry
Prerequisites: BIOC 5853.
Description: Recent developments in biochemistry. Subject matter varies from semester to semester; students should inquire at the department office before enrolling. Same course as BIOC 6820. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Veterinary Med

Japanese (JAPN)

JAPN 1713 Elementary Japanese I (F)
Description: Pronunciation, conversation, grammar and reading. Not for native speakers per University Academic Regulation 4.9. Previously offered as JAPN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 1813 Elementary Japanese II (F)
Prerequisites: JAPN 1713 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. Not for native speakers per University Academic Regulation 4.9. Previously offered as JAPN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 2713 Intermediate Japanese I (F)
Prerequisites: JAPN 1813 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. A continuation of JAPN 1813. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 2813 Intermediate Japanese II
Prerequisites: JAPN 2713 or equivalent proficiency.
Description: Oral and written practice of modem Japanese. A continuation of JAPN 2713. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 3723 Advanced Readings in Japanese
Prerequisites: JAPN 2813 or equivalent proficiency.
Description: Designed to increase facility and naturalness of delivery in dialogue. Development of general oral and aural proficiency. Previously offered as JAPN 3133 and JAPN 4713. Same course as JAPN 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 3823 Advanced Japanese II
Prerequisites: JAPN 3723.
Description: Designed to increase facility and naturalness of delivery in dialogue. Development of general oral and aural proficiency. Previously offered as JAPN 3013 and JAPN 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Jazz (JAZZ)

JAZZ 1221 Jazz Class Piano
Description: JAZZ 1221 introduces students to the basics of jazz keyboard voicings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 2010 Applied Jazz Lessons
Prerequisites: Approval of instructor.
Description: Applied Jazz Lessons are open to both music majors and non-music majors. Offered for variable credit, 1-4 credit hours, maximum of 20 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

JAZZ 2773 History of Jazz (H)
Description: Elements and stylistic features of jazz, its evolution and its impact on society. Same course as MUSI 2773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

JAZZ 3010 Applied Jazz Lessons
Prerequisites: Pass Upper-Division Exam and JAZZ 2010.
Description: Applied Jazz Lessons are open to both music majors and non-music majors. Offered for variable credit, 1-4 credit hours, maximum of 20 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

JAZZ 3610 Jazz Orchestra
Prerequisites: Audition and approval of instructor.
Description: Jazz Orchestra is open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 5610. Previously offered as JAZZ 3611. Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

JAZZ 3620 Jazz Ensemble
Prerequisites: Audition and approval of instructor.
Description: Jazz Orchestra is open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 5620. Previously offered as JAZZ 3621. Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

JAZZ 4002 Jazz Theory I
Prerequisites: Instructor Consent.
Description: Jazz Theory I introduces students to the fundamentals of functional jazz harmony, jazz forms, jazz keyboard voicings, and chord/scale relationships. Students will be expected to know all twelve major scales on their principal instrument prior to enrolling in this course.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 4012 Jazz Theory II
Prerequisites: A grade of "C" or higher in JAZZ 4002. Passing a proficiency exam can be used for placement directly into this course.
Description: Jazz Theory II is classroom instruction designed to familiarize students with basics of common jazz melodic devices and solo transcription. May not be used for degree credit with MUSI 2563.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 4102 Jazz Arranging & Composition I
Prerequisites: Jazz Theory I with a "C" or better.
Description: Jazz Arranging and Composition I introduces students to compositional techniques and arranging techniques for small group jazz. Students utilize notation software to compose, arrange, and notate. May not be used for degree credit with JAZZ 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 4112 Jazz Arranging and Composition II
Prerequisites: JAZZ 4102 with a grade of "C" or better.
Description: JAZZ 4112 is a continuation of JAZZ 4102. JAZZ 4112 introduces students to composition and arranging techniques for a large jazz ensemble consisting of four trumpets, four trombones, five saxes, guitar, piano, bass, and drums.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 4600 Jazz Combos
Prerequisites: Audition and approval of instructor.
Description: Jazz Combos are open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 5600. Previously offered as JAZZ 4601. Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

JAZZ 4610 Rhythm Section Class
Prerequisites: Audition and approval of instructor.
Description: Rhythm Section Class is open, by audition, to both music majors and non-music majors and is designed to provide training in the many styles of jazz small ensemble performance. Previously offered as JAZZ 4611. Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 4972 Jazz Styles and Analysis
Prerequisites: JAZZ 4012 Jazz Theory II with a grade of "C" or higher.
Description: JAZZ 4972 Jazz Styles & Analysis studies the most common song form types found in jazz (12-bar blues and rhythm changes). More advanced scales are taught. Additionally, students are required to present three transcription projects.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

JAZZ 5002 Jazz Theory I
Prerequisites: Students must know all twelve major scales on their principle instrument prior to enrolling in this class.
Description: Jazz Theory I introduces students to the fundamentals of functional jazz harmony, jazz forms, jazz keyboard voicings, and chord/scale relationships.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

JAZZ 5010 Applied Jazz Lessons
Prerequisites: Approval of instructor.
Description: Applied Jazz Lessons are open to both music majors and non-music majors.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

JAZZ 5012 Jazz Theory II
Prerequisites: A grade of "C" or higher in JAZZ 5002. Passing a proficiency exam can be used for placement directly into this course.
Description: Jazz Theory II is classroom instruction designed to familiarize students with the basics of common jazz melodic devices and solo transcription.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

JAZZ 5102 Jazz Arranging & Composition
Prerequisites: Students must know all twelve major scales on their principle instrument prior to enrolling in this class.
Description: Jazz Arranging and Composition introduces students to composition and arranging techniques for a jazz ensemble consisting of 5 saxophones plus rhythm section. Course topics include chord symbols, blues and jazz composing techniques, voicings for saxophones, and Finale software techniques. May not be used for degree credit with JAZZ 4102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

JAZZ 5600 Jazz Combos
Prerequisites: Audition and approval of instructor.
Description: Jazz Combos are open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 4600. Previously offered as JAZZ 5601. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Music

JAZZ 5610 Jazz Orchestra
Prerequisites: Audition and approval of instructor.
Description: Jazz Orchestra is open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 3610. Previously offered as JAZZ 5611. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Graduate
Schedule types: Lab
Department/School: Music

JAZZ 5620 Jazz Ensemble
Prerequisites: Audition and approval of instructor.
Description: Jazz Ensemble is open by audition to both music majors and non-music majors and is designed to provide training in the many styles of jazz large ensemble performance. May not be used for degree credit with JAZZ 3620. Previously offered as JAZZ 5621. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Graduate
Schedule types: Lab
Department/School: Music

Korean (KRN)

KRN 1713 Elementary Korean I (F)
Description: Pronunciation, conversation, grammar, and reading. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 1813 Elementary Korean II (F)
Prerequisites: KRN 1713 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 2713 Intermediate Korean I (F)
Prerequisites: KRN 1813 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. A continuation or KRN 1813. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 2813 Intermediate Korean II
Prerequisites: KRN 2713 or equivalent proficiency.
Description: Oral and written practice of modern Korean. A continuation of KRN 2713. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 3723 Advanced Korean Grammar and Conversation I
Prerequisites: KRN 2813 or Equivalent Proficiency.
Description: This course aims to enable students to communicate effectively in the Korean language in a variety of contexts and situations. They will be able to participate in both informal and formal conversations relating to topics, such as living in Korea, Korean food, Korean culture and famous Korean figures. In addition, they will improve their interpersonal, interpretive, and presentational communication skills and gain a better understanding of a wide range of Korean culture throughout the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 3823 Advanced Korean Grammar and Conversation II
Prerequisites: KRN 3713 or Equivalent Proficiency.
Description: This course aims to enable students to communicate effectively in the Korean language in a variety of contexts and situations. The class sessions are conducted mostly in Korean. In this course, students will further develop their communication skills in the four language domains (speaking, listening, reading, and writing) as well as a deeper understanding of Korean culture and society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

Landscape Architecture (LA)

LA 1013 Introduction to Landscape Architecture
Description: An overview of the field of landscape architecture with an emphasis on the application of artistic and scientific principles of design, planning and management of natural and built environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 1213 Visual Communication I for Landscape Architecture
Description: The practice and application of hand graphics, professional drafting, and freehand sketching skills to explore, communicate, and represent natural, designed, and built landscapes. Previously offered as LA 2002 and LA 2213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 1223 Visual Communication II for Landscape Architecture
Description: The practice and application of digital visualization in the landscape architectural design process. Introduction to computer applications used in the industry for conceptualizing, drafting, modeling, and graphic communications. Previously offered as LA 3002 and LA 2223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 1323 Computer-Aided Design for Landscape Architecture
Description: Principles and applications of computer-aided design (AutoCAD) in landscape architecture. Visual communication techniques related to technical and construction drawings. Introduction to portfolio design. Previously offered as LA 1122 and LA 2323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 1525 Studio 1: Principles and Theory of Design
Prerequisites: Concurrent enrollment in LA 1223.
Description: Introduction to basic elements, principles, and theory of design. Exploration of design process, both 2D and 3D form, spatial organization, and temporal nature of landscape. Applied projects in small scale landscape design. Previously offered as LA 3314, LA 3315, and LA 3773.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 2413 Ecological Landscape Design
Description: Introduction to principles of ecological landscape design, natural systems, and landscape performance as applied in contemporary landscape architecture. Includes the natural, cultural, and aesthetic components involved with analyzing existing space for design and planning purposes. Exposure to historical and contemporary individuals that have inspired ecological landscape design and planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 2513 Native American Symbolism in Landscape Design (D)
Description: Study of cultural diversity through Native American symbolism and application of these symbols as design elements relating to functional and aesthetic qualities in landscape design.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Diversity

LA 2515 Studio 2: Site Design
Prerequisites: LA 1223, LA 1525, and concurrent enrollment in LA 1213.
Description: Design process, site inventory and analysis as it relates to physical and social site design. Place making, experiential, behavioral, and environmental considerations among several issues to be examined. Applied projects will focus on residential design, site design and design development. Previously offered as LA 3324, LA 3325, and LA 4013.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 2523 Garden Design in Harmony with Local Ecology
Description: History, theory, and practice of creating gardens in harmony with local ecology to express aesthetic and cultural values of individuals and societies. Environmental aspects of place related to design form and expression.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 2525 Studio 3: Recreation and Open Space Design
Prerequisites: LA 2515.
Description: Recreation and play, the interface of nature, human-kind and land ethic. Applied projects will address structured and nature play, active and passive parks, open space planning, and natural landscapes. Previously offered as LA 4023, LA 4414 and LA 4415.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 3010 Internship in Landscape Architecture
Prerequisites: 45 credit hours and consent of internship chairperson.
Description: Supervised work experience with approved public or private employers in landscape architecture or related fields. May not be substituted for other required courses. Graded on a pass-fail basis. Offered for variable credit, 1-7 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3020 Long-Term Internship in Landscape Architecture
Prerequisites: LA 3515 and approval of academic advisor and faculty internship coordinator.
Description: Supervised continuous work experience for 6 months or more with approved public or private employers in landscape architecture or related fields. Presentation required following the internship experience.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3112 Landscape Architecture National Survey
Prerequisites: LA 3315.
Description: Examination and exposure to the state of landscape architecture practice and issues critical to profession. Includes 4- to 6-day out-of-state field trip component to the city hosting the American Society of Landscape Architects National Convention, observation of nationally recognized built works, participation in the convention and networking with professionals from across the country. Includes pre-trip research and post-trip documentation. Required for third-year landscape architecture students.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 3515 Studio 4: Landscape Planting Design
Prerequisites: LA 2525, HORT 2613.
Description: Introduction and application of the techniques, methods, and concepts for exploring, expressing, and representing landscape planting designs. Medium to large scale landscape architectural planting design projects and the preparation of concept sketches, illustrative plans, construction documents, and specifications. Emphasis on plant selection and arrangement criteria based on ecology and horticultural practices, the principles of design, and the fundamentals of bioregionalism. Previously offered as LA 4033 and LA 4034.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3525 Studio 5: Sustainable Construction and Design
Prerequisites: LA 3515 and LA 3884 or LA 4894.
Description: Explore sustainable issues to improve the design and implementation of natural, cultural, and built environments in the practice of landscape architecture. Applied projects will focus on and apply sustainable construction and design solutions at various scales while considering impacts on human beings and the environments. Previously offered as LA 3893 and LA 3894.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 3673 History and Theory of Landscape Architecture (H)
Description: Introduction to the history of the built environment from ancient to contemporary time that has created the styles of historical significance in landscape architecture. Examination of the social, philosophical, cultural, economic, political, and environmental conditions of the built environment within design theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Human Heritage & Cultures
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3683 Professional Practice & Office Procedure
Description: Ethics, office practice and procedure. Contract documents and specifications relating to landscape architecture. Previously offered as LA 3682.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 3884 Landscape Construction: Site Grading
Prerequisites: LA 1323.
Description: Review mechanical drafting and lettering techniques, understanding contours, principles of stormwater runoff, site grading and earthwork calculations, methods of managing stormwater runoff, erosion control, introduction to paving and drainage construction materials, specifications, cost estimating. Computer applications and hand graphics used for projects. Previously offered as LA 3883.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4010 Special Topics in Landscape Architecture
Description: New and emerging areas of study in Landscape Architecture. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 4053 International Experience in Landscape Architecture - Asia (G)
Prerequisites: Consent of appropriate faculty member.
Description: Participation in a formal or informal educational experience related with landscape architecture in Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

LA 4063 International Experience in Landscape Architecture - Peru (G)
Prerequisites: Consent of appropriate faculty member.
Description: Participation in a formal or informal educational experience related with landscape architecture in Peru.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

LA 4112 Landscape Architecture Career Survey
Prerequisites: LA 2525.
Description: Examination and exposure to built works and landscape architecture professional offices with diverse practices and market niches. Targeted networking and career exploration opportunities for students. Includes a 4- to 6-day out-of-state regional field trip component, pre-trip research, and post-trip documentation. Required for fourth-year landscape architecture students.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch

LA 4423 Planning and Design for Sustainable Landscapes
Prerequisites: For LA students, LA 3894. For all other students, NREM 3013 or NREM 2013 and SOIL 2124.
Description: Explore the origins of sustainability as a basis for understanding how to improve the planning and design of natural and cultural environments in the practice of landscape architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 4433 Land Use and City Planning
Description: Land use and city planning within the framework of a municipality's comprehensive plan, zoning, and subdivision regulations that affect the development of city form. Origins of land use form as a basis for understanding how to improve the future of urban and suburban form through the practice of landscape architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 4453 Principles of Landscape Analysis for Site Design
Prerequisites: LA 3515.
Description: Analysis of landscapes for design and management decision-making using real-world projects integrating computer-aided design (CAD) and geographic information systems (GIS), aerial photography, and global positioning system (GPS) technologies. Applications will be related to landscape architecture and site design.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4515 Studio 6: Urban Design
Prerequisites: LA 3515.
Description: Contemporary urban issues affecting the design process, site master planning, and multi-disciplinary problem solving. Applied project will address influences on urban design, from regional influences to user behavior. Previously offered as LA 4514 and LA 5024.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 4525 Studio 7: Community Development and Neighborhood Design
Prerequisites: LA 3525 or LA 4515.
Description: Exposure to contemporary issues of community development over a range of scales including landscape planning, schematic design, and design development. Projects will address issues at multiple forms and densities. Exploration of professional office dynamics, environments, and community involvement.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4573 Recreation Planning
Prerequisites: Consent of instructor.
Description: Theory and methods for small and large scale area planning with emphasis on natural and cultural resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4894 Landscape Construction: Materials and Methods
Prerequisites: LA 1323 and LA 3884.
Description: A capstone course using design techniques, computer skills, construction materials, methods and applications for the landscape industry. Detailed computerized construction drawings of pavement, fences, walls, wood structures, and water features. Comprehensive construction documents using computer drafting, design and calculation applications. Previously offered as LA 4893.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4990 Landscape Architecture Special Problems
Prerequisites: Consent of appropriate faculty member.
Description: Landscape architectural related problems. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 5110 Advanced Special Problems
Prerequisites: Consent of appropriate faculty member.
Description: Specific landscape architectural problems. Offered for variable credit, 1-12 credit hours, maximum of 20 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

Language, Literacy and Culture (LLCE)

LLCE 2003 American Stories: Diverse Peoples in YA Literature (DH)
Description: Explores young adult literature representations of diverse peoples in America. Students examine historical and contemporary representations of diverse social and cultural groups through a variety of critical, analytical lenses such as literary or formal analysis, anti-bias antiracist/critical literacy, disability studies lens, genetic/historical criticism, and queer reading of young adult literature. Requires reading, discussion, and written analysis of young adult literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

LLCE 6060 Special Topics in Language, Literacy & Culture Education
Description: Seminar on special topics in language, literacy, and culture education. Course topics will differ depending on current interests and issues in the field.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6063 Theoretical Models and Processes of Literacies Education
Description: Doctoral level course that focuses on a broad range of theoretical models of P-12 literacies practices, with an emphasis on reading education. Both historical perspectives and contemporary theories are explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6083 Seminar in Writing Pedagogy
Prerequisites: Graduate standing with Graduate College.
Description: Seminal works in theory and research related to the teaching of writing in K-16 settings are examined. Students will examine the scholarship on genre theories, writing process theory, and writing pedagogy, considering the practical classroom implications and applications for this work. This course relies on reading, discussion, synthesis of key concepts, and individual inquiry as central learning processes. Previously offered as CIED 6083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6093 English Language Learners: Theory, Research, Policy and Practice
Prerequisites: CIED 5343 or instructor approval.
Description: History, theory, research, policy and practice of teaching English Language Learners and Emergent Multilingual students in PK-12 settings. Emphasis is placed on the critical pedagogical and theoretical aspects of teaching ELL, research and policy, as well as how assessments are used for the identification and placement of ELL students. Previously offered as CIED 6093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6113 Scholarly Writing in Literacies & Language Arts
Description: Doctoral level course that focuses on developing scholarly writing skills for publication in the disciplines of P-12 literacies and language arts education. Scholarly text structures, academic writing strategies, disciplinary publication venues and expectations are explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6183 Colloquium in Cultural Studies
Prerequisites: Graduate standing. For those in education, recommend SCFD 6113 and SCFD 6983.
Description: The study of culture and the problematics of culture beyond national boundaries and disciplinary divisions through interdisciplinary and post-disciplinary lenses in, but not limited to, the context of language and multiliteracies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6193 21st Century Literacies: Theory, Research, and Practice
Description: Theory and research on new literacies for the 21st Century including digital literacies, multimodalities, multi-literacies, participatory culture, and popular culture, considering the implications and applications for K-20 classroom. Previously offered as CIED 6193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6213 Observing and Responding to Young Readers in Reading Recovery
Description: Understanding the complex role of teacher leaders as they teach children and participate in the training of Reading Recovery teachers in the field. Develop role as a facilitator and problem solver in the implementation of Reading Recovery within school systems. Interaction with other teacher leaders and the University trainer at multiple training sites to broaden and deepen understanding of how to support and facilitate teachers' growth and development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6223 Theoretical Foundations in Early Literacy and Reading Recovery
Description: Introduction to underlying theories that contribute to early reading and writing. Critical understandings include the role of systematic observation of oral and written language and the relationship of oral language acquisition to early school literacy. A history of research in literacy processes that contribute to the foundations of Reading Recovery will be explored. (The course is the first course in the two-semester theory requirement for Reading Recovery teacher-leaders and trainers in training.)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6233 Reading Recovery Teacher Leadership
Description: Participants in this course will construct an understanding of the complex role of teacher leaders as they teach children and participate in the training of Reading Recovery teachers in the field. They will also acquire skills in fulfilling their role as a facilitator and problem solver in the implementation of Reading Recovery within school systems. They will interact with other teacher leaders and the University trainer at multiple training sites to broaden and deepen their understanding of how to support and facilitate teachers' growth and development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6243 Early Literacy Intervention in Reading Recovery
Description: This course focuses on the procedures for working with emerging at-risk readers and writers. The course content is based on strategies children need to be independent readers & writers. Course content and presentation reflect a highly-theoretical teacher decision making model based on actual observation of teacher-child interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6253 Advanced Theoretical Foundations of Early Literacy and Reading Recovery
Description: A course for Reading Recovery teacher leaders-in-training focusing on the underlying theories of early literacy acquisition (including processes related to reading, writing, and oral language) and the underlying theories of prevention of reading difficulties through early intervention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6263 Advanced Reading Recovery Teacher Leadership
Description: This course involves the application of expertise in early literacy and early intervention leadership. Teacher leaders-in-training will participate in the implementation of early literacy teacher courses and early intervention in schools and systems, teach adult learners, and learn to use data to refine and evaluate implementation. Field work is required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6513 Staff Development in Literacy Education
Description: Design and delivery of research related to staff development experiences in literacy. Previously offered as CIED 5510 and CIED 6513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6653 Issues and Trends in Adolescent Literacy
Description: This course addresses current issues and trends in adolescent literacy education including theory, research, and practice. Previously offered as CIED 6653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6673 Theory and Research on Teaching Contemporary Children's and YA Literature
Description: Theory and research related to teaching literacy through and with Contemporary Children's Adolescent, and Young Adult Literature. Previously offered as CIED 6673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6680 Research Collaboratives in Literacies & Language Arts Education
Prerequisites: SCFD 6113
Description: Doctoral students engage in faculty-led collaborative research teams to explore theoretical foundations and methodologies of P-12 literacies and language arts education. Students develop research skills, practices, and publications and are expected to carry out projects to completion/publication, which may involve commitment beyond the course. Attendance at weekly or biweekly team meetings is expected as well as independent and collaborative research time. Offered for variable credit, 1-3 hours, maximum of 6 hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

LLCE 6683 Language, Literacy and Culture
Description: The social-cultural perspectives related to the role of language in mediating literate behaviors, cognition and action in learning contexts. Aspects of language use within various learning contexts (situated cognition) and its academic, technical and everyday discourse in understanding the interrelationships among teaching, learning, knowledge and culture. Previously offered as CIED 6684 and CIED 6683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

Languages and Literatures (LL)

LL 1000 Special Studies in Languages and Literatures
Description: Special studies in areas not regularly offered; basic level. Not for native speakers per University Academic Regulation 4.9. Previously offered as FLL 1000. Offered for variable credit, 1-10 credit hours, maximum of 10 credit hours.
Credit hours: 1-10
Contact hours: Lecture: 1-10 Contact: 1-10
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LL 1113 The World Through Film (GH)
Description: This course will give students a glimpse of the world, of different peoples and cultures, through movies. It would like to awake in them an appreciation for the diversity of the world we live in and expose them to the basics of various languages spoken around the world. Instructors from the different languages taught in the Department of Literatures and Languages will visit the class and expose the students to some elements of the languages they teach. Previously offered as FLL 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

LL 1123 The Origins of Modern Ukraine: Culture and State (GH)
Description: This course traces the multicultural origins of the modern Ukrainian state from the beginnings of Kyiv to the present day. Topics include Vikings, Cossacks, the Ukrainian nationalist idea, Soviet domination, and the post-1991 rise of independent Ukraine. It examines the struggles of the Ukrainian people to create a modern nation with challenges, including Russian political and economic interference, invasion, and war. Readings are selected from contemporary Ukrainian authors. Taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

LL 1223 European Folklore and Fairy Tales (H)
Description: This course examines the development of the fairy tale and folk narrative in Europe from antiquity to the 21st century. By the end of the semester, you will be familiar with the cultural history of fairy- and folk-tales, and their influence on popular culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 1233 Spanish in the United States (D)
Description: This course provides an introduction to the Spanish language and Spanish-speaking communities across the United States, with a special emphasis on Spanish-speaking communities in Oklahoma. Students will explore key topics such as the history of Spanish in the U.S., differences in how Spanish is spoken in various regions, bilingualism, media representation, and language policy. Students will critically engage with these topics through weekly readings, discussions, and assignments. Course taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Diversity

LL 2000 Special Studies in Languages and Literature: Intermediate
Prerequisites: 6 hours or equivalent in target language (applies only to language course).
Description: Special study in areas other than those offered in regular program; intermediate level. Not for native speakers per University Academic Regulation 4.9. Previously offered as FLL 2000. Offered for variable credit, 1-5 credit hours, maximum of 10 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

LL 2103 Masterworks of Western Culture: Ancient and Medieval
Description: Ideas and values of Western culture as revealed through literary, artistic, historical, and philosophical contexts from Greek, Roman, and Medieval periods. Previously offered as FLL 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LL 2203 Masterworks of Western Culture: Modern
Description: Ideas and values of Western culture as revealed through literary, artistic, historical, and philosophical contexts from the Renaissance to the Modern period. Previously offered as FLL 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LL 2443 Languages of the World
Description: A comprehensive survey of world languages. The essential structural and historical organization of languages. The process of languages as a basic human function. Same course as ENGL 2443. Previously offered as FLL 2443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LL 2503 French Culinary Staples (G)
Description: Study of the production, taste, and cultural importance of cheeses, wines, and breads in France. Analysis of marketing techniques related to these products and cultural comparisons of food consumption habits between France and the US. Course is taught in English. Previously offered as FLL 2503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

LL 2603 French Cultural Exception (H)
Description: The purpose of this course is to give students a critical overview of modern French philosophy in order to help them conceptualize and reassess the importance of egocentrism in Western culture. Previously offered as FLL 2603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 2613 Race and Culture in Latin America (GH)
Description: A comprehensive survey of the cultural, aesthetic, and political depictions of race in Latin America, from colonial times to the present. Course taught in English. No prerequisite. Previously offered as SPAN 3613 and LL 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

LL 2623 Don Quixote in English (H)
Description: This course is devoted to Cervantes' novel, Don Quixote, in English translation. Course taught in English. No prerequisite. Previously offered as SPAN 3623 and LL 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3003 The Soviet Union: History, Society and Culture (GS)
Description: A comprehensive view of the Soviet Union, stressing those issues in the political, economic, technological, geographical, and cultural situation. Accessible to beginning undergraduates. Same course as HIST 3003 & POLS 3003. Previously offered as RUSS 3003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension, Society & Human Behavior

LL 3053 Introduction to Central Asian Studies (GS)
Description: A comprehensive view of newly-emerged Central Asian states, examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as reflected in their thoughts, religion, literature, and architecture, in the past, and the strategic importance of their natural wealth for the present and future. Same course as GEOG 3053, GLST 3053, HIST 3053, and POLS 3053. Previously offered as RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension, Society & Human Behavior

LL 3103 Hispanic Literature in Translation (H)
Description: Readings of significant works from Spanish and Spanish-American literatures in English translation. Does not apply to major or minor in Spanish. Previously offered as FLL 3103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3113 French Literature in Translation (H)
Description: Readings of significant works from French literature in English translation. Does not apply to a major or minor in French. Previously offered as FLL 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3123 Classical Mythology (H)
Description: Myths, their cultural context, and their place in world literature. Course taught in English. No prerequisite. Same course as ENGL 3123. Previously offered as LATN 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3133 Understanding Russia (H)
Description: A study of Russian cultural history to explain contemporary Russia and Russian national identity. Readings include epic tales, literary works from Pushkin, Lermontov, Turgenev, Gogol, Chekhov, Blok, Akhmatova, and Yevtushenko, as well as political treatises by Ivan the Terrible and Mikhail Khodorkovsky. Course taught in English. Previously offered as RUSS 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3143 Chinese Literature in Translation
Description: Development of student competence in reading a wide variety of materials by contemporary Chinese writers. Previously offered as CHIN 4133 and CHIN 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LL 3163 Literatures of the Ancient World (H)
Description: Readings and topics in the cultures and literatures of the ancient world. Same course as ENGL 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3223 Love and Hate in Greece and Rome (H)
Description: A study of the expression of love and hate from Archaic Greece to Imperial Rome, with a particular attention to cultural context and the theoretical work that has arisen from it. Course taught in English. Previously offered as LATN 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3233 Greek Tragedy (H)
Description: This class studies a number of plays by the three great Greek tragedians: Aeschylus, Sophocles, and Euripides. The genre of tragedy was born in 5th century Athens and is grounded in a very specific context of civic life, politics, and religion. The plays, almost all set in the realm of myth and legend, also deal with important questions of ethics, war, psychology, tensions between the individual, family, and state, and what it is to be human.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3333 The Russian Spy in Fact and Fiction (GH)
Description: This course examines the spy in cultural productions of Russia and the West. Topics include stereotyping in popular culture, the relationship between fact, fiction, and political imagination, Western and Russian views of each other, the Cold War, security, hybrid war, and grey-zone activities. Readings from American, British, and Russian sources include classic Cold War literature, contemporary press, history, and a graphic novel. Taught in English. Previously offered as RUSS 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

LL 3500 Specialized Study in a Modern Language
Prerequisites: Consent of instructor.
Description: Instruction and/or tutorial work in a modern foreign language other than those offered in a major program. Previously offered as FLL 3500. Offered for variable credit, 1-20 credit hours, maximum of 20 credit hours.
Credit hours: 1-20
Contact hours: Contact: 1-20 Other: 1-20
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

LL 3633 Language and Migration (GS)
Description: This course examines the relationship between language and human mobility in the context of globalization. We will examine linguistic diversity as a result of forced and voluntary migration. Course taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension, Society & Human Behavior

LL 3643 Judaism, Christianity and Islam in Medieval Iberia (H)
Description: The Iberian Peninsula of the Middle Ages was characterized by varying degrees of coexistence and cooperation among Jews, Christians, and Muslims. This course will focus on the contributions to literature, art, science, government, architecture, philosophy, etc. of members of these three faith traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3663 Surveillance, Data, and Hacking in German Film and Television (H)
Description: We will survey German surveillance in German film and television, viewing and discussing films by famous German directors as well as art-house cinematographers. Taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 3713 Chinese Culture (G)
Description: Historical, cultural, social, economic, and political aspects of China. Previously offered as CHIN 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

LL 4000 Specialized Studies in Languages and Literatures
Prerequisites: Junior standing or consent of instructor.
Description: Individual guided study, tutorial or seminar on specially selected topics in a foreign language or literature. Previously offered as FLL 4000. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

LL 4123 Fairy Tales: The Brothers Grimm, Disney, and Beyond (H)
Description: An introduction to European fairy tales, with an emphasis on the Brothers Grimm and their cultural influence. Taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 4133 Vampires, Monsters, and Other Horrors: German Film's Haunted Pasts (H)
Description: A survey of German film, with emphasis on the ways films reflect specific cultural, and political moments in German and Austrian history. Taught in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 4443 Greek Literature in Translation (H)
Description: Readings of significant works from ancient Greek literature and philosophy in English translation, from Homer through Aristotle. Readings and classes conducted in English. Previously offered as GREK 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 4453 Latin Literature in Translation (H)
Description: Readings of significant works from Latin literature in English translation, from the late Republic through the early Christian era. Readings and classes conducted in English. Previously offered as LATN 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 4463 Russian Literature in Translation I (H)
Description: Russian literature from its beginning to mid-19th century: Pushkin, Lermontov, Goncharov, Gogol, Turgenev, and Dostoevsky. Readings in English. Classes conducted in English. Previously offered as RUSS 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Human Heritage & Cultures

LL 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member with second faculty reader, both of whom will be present at an oral defense of the thesis. Required for graduation with departmental honors in any foreign language major. Previously offered as FLL 4993.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures
General Education and other Course Attributes: Honors Credit

LL 5210 Graduate Studies in Languages
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Languages and Literatures

Latin (LATN)

LATN 1713 Elementary Latin I (F)
Description: The rudiments of beginning Latin: grammar, vocabulary and elementary readings. Previously offered as LATN 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 1813 Elementary Latin II (F)
Prerequisites: LATN 1713 or equivalent proficiency.
Description: Continuation of LATN 1713. Grammar, vocabulary and readings. Previously offered as LATN 1223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 2713 Elementary Latin III (F)
Prerequisites: LATN 1813 or equivalent proficiency.
Description: A continuation of LATN 1813. Grammar and readings of Latin authors. Previously offered as LATN 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 2813 Intermediate Readings
Prerequisites: LATN 2713 or equivalent proficiency.
Description: Readings from Virgil's Aeneid. Previously offered as LATN 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 3330 Advanced Readings in Latin
Prerequisites: LATN 2813 or equivalent proficiency.
Description: Prose authors, poetry, and medieval Latin. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

Legal Studies in Business (LSB)

LSB 1113 Law in Society
Description: Forms and types of law and their evolution, including antitrust, ecology, consumerism and civil rights. Political, social and economic forces affecting legal developments. Legal needs of society and the probable future direction of the law. Course previously offered as BUSL 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 3010 Special Topics in Legal Studies in Business
Prerequisites: LSB 3213, prior consent of instructor.
Description: Analysis of a contemporary topic in business law. Changing social issues and trends in legal studies in business. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

LSB 3011 Name, Image, and Likeness and the Law
Description: In this course, students will learn the primary legal principles surrounding the right of publicity, which in the context of college athletes is commonly referred to as name, image, and likeness rights. Students will learn the legal theory that underpins the current debate over granting name, image, and likeness rights to collegiate athletes. This course covers several different legal concepts, including the separation of powers, contracts, agency law, and intellectual property law. After completing this course, students will understand the rules governing the licensing of name, image, and likeness rights for college athletes. Students will also gain experience in negotiating and drafting mock contracts.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 3213 Legal and Regulatory Environment of Business
Prerequisites: Junior standing.
Description: General concepts regarding the nature of the legal system, ethical issues in business decision making, dispute resolution processes, basic constitutional limitations on the power of government to regulate business activity, the nature of government regulation, fundamental principles of tort and contract law. Course previously offered as BUSL 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4013 Law and Social Media
Prerequisites: LSB 3213.
Description: This course introduces the fundamentals of social media law. Legal topics include: marketing, intellectual property, employment, privacy, free speech and fundraising. Methods to address the risks of these legal issues will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4113 White Collar Criminal
Prerequisites: LSB 3213.
Description: This course explores white-collar crime including illegal, unethical and deviant activities of organizations and individuals. The course examines causes of the behavior as well as its impact on business stakeholders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4323 Law of Commercial Transactions and Debtor-Creditor Relationships
Prerequisites: LSB 3213.
Description: Concentrated study of law relating to certain commercial transactions and debtor/creditor relationships. Includes law of sales, negotiable instruments, secured transactions, suretyship and bankruptcy. Previously offered as LSB 3323 and BUSL 3323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4403 Law and Entrepreneurship
Prerequisites: ECON 3213 or permission of instructor.
Description: Explores how to recognize and ethically manage legal risks within an emerging enterprise in order to optimize opportunities. Topics include: evaluating appropriate business organizations; understanding alternatives for obtaining capital; using employees to help achieve organizational goals; protecting intellectual property; and complying with the regulatory environment when advertising and marketing a product or service.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4413 Law of Business Organizations
Prerequisites: LSB 3213.
Description: General principles of law relating to the formation, operation and termination of various forms of business organizations. Includes a study of the law of agency, partnerships and corporations. Course previously offered as BUSL 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4423 Employment Law (D)
Prerequisites: LSB 3213 or equivalent.
Description: Legal foundations of employment in the United States. Contemporary topics relating to the employment environment such as state legislative and judicial limitations on employment at will doctrine, federal legislation relating to equal employment opportunity and affirmative action, fair labor standards, safety in the work place and state workers compensation laws. Previously offered as LSB 3423 and BUSL 3423. No degree credit for students with credit in LSB 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Diversity

LSB 4513 White Collar Criminal Law
Description: This course is a comprehensive examination of white-collar crime - the illegal, unethical, or deviant activities of respectable institutions and individuals. The class will emphasize how courts, juries and the public perceive and react to these crimes. The causes and impact on the business community and society will be examined. Students will study contemporary and notorious cases. Students will brief cases in handouts studying the major sources of law in the prosecution of white collar criminal cases by the federal government. Traditional and active learning methods will be used.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4523 Law of Real Property
Prerequisites: LSB 3213 or equivalent.
Description: Nature of real property and of the legal transactions relating thereto. Topics may include deeds and conveyancing, landlord-tenant relationships, mortgages, easements, oil and gas interests, types of estates, joint ownership, and legal descriptions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4633 Legal Aspects of International Business Transactions (G)
Prerequisites: LSB 3213 or equivalent.
Description: Legal aspects of operating a business entity engaged in international commerce. Topics may include: foreign business organizations, U.S. taxation of foreign investors, common clauses in transnational contracts, problems of technology transfer on the international market, anti-trust aspects of international business, and jurisdictional problems in resolving disputes. Course previously offered as BUSL 4633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

LSB 5010 Research and Independent Studies
Description: A workshop arrangement or supervised independent study. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Management

LSB 5163 Legal Environment of Business
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Legal environment within which business must operate. Nature and source of law, the operation of the judicial system, the operation of administrative agencies, selected Constitutional provisions frequently involved in litigation of business problems, and selected substantive legal areas having a direct relationship with business operation and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5203 Foundations of Issue and Conflict Management
Description: Provides professionals from all fields with the skills necessary to handle conflicts, solve disputes, influence decisions and develop positive interpersonal relationships. It provides an overview of the alternative dispute resolution processes by utilizing readings, research, discussion and role-playing exercises.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5213 Mediation and Facilitation: Theories and Practice
Prerequisites: ECON 5203.
Description: This course examines the theories, skills, and boundaries of the mediation and facilitation processes, and analyzes the role of the third party neutral in the intervention and resolution conflicts. Ethical, practical and legal constraints are also addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5233 Introduction to Arbitration and Litigation
Prerequisites: LSB 5203.
Description: This course examines the elements and process of arbitration, situations, in which arbitration skills are required, including construction, securities, civil conflicts, labor disputes and commercial contracts. Topics include comparisons to litigation, the role of judicial review and the enforcement of arbitration awards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5290 Seminar in Negotiation and Alternative Dispute Resolution
Prerequisites: Consent of instructor.
Description: Individual investigations in the areas of issue and conflict management under the direct supervision of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Management

LSB 5423 Employment Law
Prerequisites: LSB 3213 or equivalent or permission of instructor.
Description: Legal foundations of employment in the United States. Contemporary topics relating to the employment environment such as state legislative and judicial limitations on employment at will doctrine, federal legislation relating to equal employment opportunity and affirmative action, fair labor standards, collective bargaining, and safety in the work place. Students may not take both LSB 4423 and LSB 5423 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

Leisure (LEIS)

LEIS 1232 Beginning Golf
Description: Theory and practice of basic skills, rules, terminology and etiquette.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1242 Beginning Tennis and Racquetball
Description: Theory and practice of tennis and racquetball; basic skills, rules, terminology, and game strategy for singles and doubles play. No credit for students with credit in LEIS 1252.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1252 Beginning Tennis
Description: Theory and practice of basic skills, rules, terminology and game strategy for singles and doubles play. No credit for students with credit in LEIS 1242.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1322 Bowling
Description: Theory and practice of approaches, deliveries, releases and mechanical principles involved in aiming and follow through.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1342 Physical Fitness
Description: Theory and practice of aerobic and weight training activities with learning experiences designed to promote physical fitness.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1352 Weight Training
Description: Improvement of muscular strength and endurance in the major muscle groups of the body through progressive resistive exercise. Fundamental anatomy, physiology, mechanical principles, methods and techniques as applied to weight training programs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1362 Self Defense
Description: Theory and practice of self defense; scientific principles of gravity and body control over opposing forces, and principles of contest judo.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2112 Rock Climbing
Description: Theory and practice in the basics of technical rock climbing, bouldering and spelunking.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2122 Backpacking and Hiking
Description: Theory and practice of outdoor skills and leadership techniques for executing and evaluating a wilderness activity.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2322 Recreational Dance
Description: Theory and practice of traditional social dances and a variety of "free style" dance forms.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 6043 Ethical Issues in Health, Leisure, and Human Performance
Prerequisites: Admission to the Graduate College.
Description: A survey of ethical issues with specific emphasis on health, leisure, and human performance in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Library Science (LBSC)

LBSC 1011 Library and Internet Information Competencies
Description: Introduction to the organization, retrieval and evaluation of information found in research libraries and on the Internet. Development of information-seeking competencies using both print resources and electronic databases.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5013 Library Media Center in the Schools
Description: Effective utilization of the centralized school media center for the teaching-learning process. Course previously offered as LBSC 3050.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5113 Selection and Organization of Informational and Educational Resources
Description: Selection, evaluation, organization and use of informational and educational resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5413 Organization of Information
Description: Basic principles of the organization of information in schools. Information and knowledge organization techniques that exist or are emerging and focuses on standards and tools that are used in educational environments. Course previously offered as LBSC 4414.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5613 Library Networks and Databases
Description: Introduction to the organization, retrieval and evaluation of information found in research libraries and on the Internet. Development of information-seeking competencies using both print resources and electronic databases.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5823 Administration of School Library Media and Technology Programs
Description: Vision of, planning, organizing, policy making, staffing, budgeting, decision-making and evaluating a standards-based school library media or school technology program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

Management (MGMT)

MGMT 3011 Business, Government and Society
Description: Students will be exposed to topics in business sustainability including ethics and corporate responsibility; social environment and stakeholders; natural environment and externalities; and the regulatory environment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3013 Fundamentals of Management (S)
Description: Survey of management principles and techniques. Examines a variety of issues at individual, team and organizational levels and challenges faced by today's managers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Society & Human Behavior

MGMT 3021 Practical Business Skills: Success Strategies
Description: This course introduces students to practical business skills by developing behaviors and exploring routines that correlate with career success. Specific attention to risk taking is explored.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3031 Practical Business Skills: Personal Decision Making
Description: This course teaches practical business skills by introducing students to improved decision making. Specifically, students will explore life decisions, career choices and improved personal budgeting and management skills.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3041 Practical Business Skills: Critical Thinking Skills
Description: This course introduces students to practical business skills including critical thinking, analytical skills, reason and the art of self-reflection. Students will also learn about imagination, intellectual bravery and the thinking skills needed to succeed in a rapidly changing world.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3123 Managing Behavior and Organizations
Prerequisites: MGMT 3013.
Description: Focuses on the complexities of human behavior in organizational settings. Performance expectations and determinants at the individual, team and organizational levels are examined. Priority enrollment is given to management majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3133 Developing Leadership Skills
Prerequisites: MGMT 3013.
Description: The study of personal, interpersonal and group factors relating to leadership performance. An integration of the theory and practice of leadership. May not be used for degree credit with BADM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3313 Human Resource Management
Prerequisites: MGMT 3013.
Description: Policies and practices used in personnel management. Focuses upon the functions of a human resource management department.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3921 Name, Image, and Likeness: Sports Business
Description: This course will provide an overview of revenue generation in collegiate sports, focusing on the recent changes in name, image, and likeness for NCAA athletes. Topics will include history and development of amateur sports in the United States, organization and structure of the NCAA, and marketing and finances within collegiate athletics. Special attention will be given to understand name, image, and likeness challenges and opportunities in the current and future collegiate sports marketplace.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3943 Sports Management
Prerequisites: MGMT 3013.
Description: Basic management skills necessary in the operation of sport organizations. The social, behavioral and managerial foundations of sport management, public relations, finance, economics, budgeting in the sport industry and managing a sports facility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3963 Social Issues in Sports Management
Description: Analysis of the external environment and its relationship to sports management will be explored. Topical social issues will be discussed and presented and students will gain insight on how sports organizations operate complex issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4011 Crucial Interactions
Description: Examines methods for increasing positive communication between you and organizational members. Crucial conversations are those conversations that we must have. Ways to increase the free-flow of dialogue to maximize benefit from a crucial conversation are discussed. No credit for students with credit in MGMT 5011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4013 Current Topics in Management and Leadership
Prerequisites: MGMT 3013.
Description: Examination of selected topics representing the most current management and leadership theories and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4021 Managing Professional Relationships
Description: The study of political behaviors and ways to use them effectively in order to be successful in your career. Ways to be prepared for political dynamics at work and what you can do to emerge a winner will be discussed. No credit for students with credit in MGMT 5021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4031 Leading Organizational Change
Description: An introduction to ways of leading change in an organization to keep pace with the economy and the competition. Building an eight step process for developing, selling and implementing change initiatives. No credit for students with credit in MGMT 5031.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4033 Management of Sustainable Enterprises
Description: Students will be introduced to the social and natural environments and threats to sustainability. The course will cover the external drivers of sustainability as well as internal responses to these pressures. May not be used for degree credit with MGMT 5033. Previously offered as MGMT 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4041 Performance Management
Description: A study of the role of a performance management (PM) system in an organization, the basic components of a PM system (standards, measurement, judgment and action), PM methods and performance management interviews and the Balanced Scorecard. No credit for students with credit in MGMT 5041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4051 Creating Ethical Work Places
Description: An examination of the meaning of ethics in business and human resource management, how ethical, work-related behavior can be maximized, and how ethical organizational cultures facilitate organizational effectiveness. Establishing and critiquing an ethics program and examining your own code of ethics. No credit for students with credit in MGMT 5051.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4053 Study Abroad: Contemporary Global Impacts in Management
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4061 Managing Confrontations
Description: Crucial confrontations directly address gaps between expectations and performance with a model that ensures individual and team effectiveness. Learn to hold people accountable, master face-to-face performance discussions, motivate without using power, enable without taking over, and move to action. It will improve the quality of your life and of your organization. No credit for students with credit in MGMT 5061.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4063 Management of Corporate Philanthropy
Description: The course is designed as an opportunity for students to learn about the relationship between nonprofit and for-profit organizations, about individual and corporate philanthropy, and possibly to take part in a philanthropic experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4073 Management and Ethical Leadership
Description: This course focuses on the application and evaluation of real-life ethical dilemmas using ethical decision-making models. Students will evaluate personal value systems, individual, leadership driven, organizational, and community ethical issues. Students may not take both MGMT 4073 and MGMT 5073 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4083 Corporate and Social Responsibility
Prerequisites: MGMT 3013.
Description: Companies and organizations are powerful entities and have potential to harm or to do good in the pursuit of profit. This "good" is corporate social responsibility (CSR) and it's becoming a necessity in the corporate world. Students will be exposed to managerial responsibility as well as social responsibility at the corporate level. Teaching methods may include case analysis and business simulation. May not be used for degree credit with MGMT 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4093 Management of Nonprofit Organizations
Description: Students will be introduced to the role of nonprofits in the economy including management systems, strategy, and the interface between nonprofits, other businesses and various stakeholders. May not be used for degree credit with MGMT 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4123 Labor Management Relations
Prerequisites: MGMT 3013.
Description: Labor relations and collective bargaining. Negotiation and administration of labor agreements and employee relations in non-union organizations. Modes of impasse resolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4133 Total Rewards
Prerequisites: MGMT 3313.
Description: This introductory course focuses on the fundamentals of compensation; such as, the legislative environment, compensations theories, job analysis, job evaluation, wage structures, and indirect compensation programs. May not be used for degree credit with MGMT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4143 Managing Stress and Anxiety at Work
Description: Exploring the dynamics of stress and anxiety in the workplace from both managerial and employee perspectives. Students will be exposed to psychological theories and organizational practices to learn creative strategies aimed at fostering resilience, enhancing well-being, and optimizing productivity in the face of workplace pressures. Through case studies, discussions, and practical exercises, students will develop actionable integrating evidence-based techniques for developing personal resilience and supportive workplaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4153 Talent Development
Prerequisites: MGMT 3313.
Description: The role of training and development in organizational sustainability and competitiveness is examined. Topics include assessing training needs, developing and delivering training, evaluating training effectiveness, and career development. Students develop a training program and trainer skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4163 Fundraising for Nonprofit Organizations
Description: Students will be introduced to the theory and practice of raising external funding for social causes. Course may include exposure to external speakers and nonprofit executives. May not be used for degree credit with MGMT 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4213 The Fair Workplace (D)
Description: Students are introduced to an increasingly diverse American workforce. Successful leaders need to understand the legal dynamics of fairness (e.g., equal employment opportunity legislation), the cultural issues that challenge inclusiveness at work, and the interpersonal competence that enables them to interact with a wide-range of individuals. In this class, students will examine how managers build a successful organization by embracing fair organizational practices for diversity and inclusion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Diversity

MGMT 4233 Legal and Ethical Issues in a Diverse Workplace
Prerequisites: MGMT 3013
Description: Explores legal and ethical issues related to managing a diverse workplace. Students will learn about the impact of discrimination and apply concepts of diversity and inclusion. Regulatory environment will be explored as well as employment practices, prohibitions of discrimination and harassment based upon race, national origin, gender, age, disability, and sexual orientation, and will focus on the link between issues of racism/diversity and ethical behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4313 Organization for Action
Prerequisites: MGMT 3013.
Description: A behavioral approach to the study of inter-organizational processes and the implementation strategies of firms. Building on Strategic Management and Human Resource Management, from the behavioral science, the study of the cognitive, social, cultural, and political aspects of strategy implementation in simple and complex organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4403 Environmental Sustainability for Business
Description: The course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4413 Change Management
Prerequisites: MGMT 3013.
Description: Managing organizational change and redesign. The study of organizational change processes and the enhancement of performance through change management. Study of the body of knowledge and applications in this branch of organizational science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4423 Environmental Problem Analysis for Business
Description: This course reviews the process of environmental problem analysis using current practical examples. This course draws on theories from various disciplines and applies appropriate techniques of analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4453 Environmental Management Practicum for Business
Description: This course explores methods of analyzing sustainable solutions to complex environmental, safety and health problems using an integrated team approach. This approach combines technical, legal, economic, and sociopolitical information into a coherent analytical framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4463 Industrial Ecology for Business
Description: Provides students with an overview and broad understanding of ecology principles as applied to an industrial setting. The course begins with an overview of general ecological principles such as ecosystem components and structures, biogeochemical cycles, energy flows, and properties of populations. The course concludes with a consideration of industrial ecology principles such as sustainability, pollution prevention, life cycle assessment and waste minimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4493 Applied Environmental Standards for Business Managers
Description: Foundational understanding of the complex regulatory framework related to waste management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4513 Strategic Management
Prerequisites: Senior standing.
Description: Builds on concepts from business core courses to explain the upper management tasks of formulating and implementing strategies that increase organizational performance. Teaching methods may include case analysis and business simulation. Course previously offered as BADM 4513 and BADM 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4533 Leadership Dynamics
Prerequisites: MGMT 3013.
Description: Contemporary business challenges require managerial leadership of the highest order. Students will learn about the latest developments in leadership theory and research. Students will also gain experience in putting into action the concepts learned in this class. May not be used for degree credit with ORGL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4543 Management Analytics
Prerequisites: MGMT 3313.
Description: This course focuses on the application of analytic procedures and theories to the practice of human resource management. Topics include: research methods, psychometrics, descriptive statistics, inferential statistics, correlation, linear prediction, and other methods as deemed appropriate by the instructor. Students will show competence In proper data collection and evaluation techniques, as well as skills necessary to write up and present quantitative findings. May not be used for degree credit with STAT 3013 or PSYC 3214. Previously offered as MGMT 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4573 Managerial Decision Making
Prerequisites: MGMT 3013.
Description: The goal of this course is to help students become more effective decision-makers. It attempts to provide an understanding of decision-making at two levels - the individual and the group. It examines the mechanisms that underlie decision choices, preferences, and judgments, and through this examination, attempt to discover how to improve decision-making processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4613 International Management (G)
Prerequisites: MGMT 3013 or MGMT 3123.
Description: Survey of the organization, planning and management of international operations of business firms. Exploration of major cultural, economic and political systems and their effects on the management function.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

MGMT 4623 Small Business Management
Prerequisites: MGMT 3013 or MGMT 3123.
Description: Starting and managing a small business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4633 Business Management Consulting
Description: Techniques required for locating business opportunities and evaluating potential, business consultancy, and identifying best practices in industry. Students will explore a typical consulting project from beginning to end.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4650 Leadership Issues
Prerequisites: MGMT 3013.
Description: Examination of leadership issues. Specific topics vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

MGMT 4693 International Human Resource Management
Prerequisites: MGMT 3013 required, MGMT 3133 preferred and LSB 4423 recommended.
Description: A comparison of human resource management policies and practices in the United States with those of major U.S. trading partners. Major human resource functions such as planning, staffing, training, compensation, performance appraisal and labor relations. Human resource policies and practices of China, Japan, Mexico, Canada and other countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4713 Negotiation Essentials
Prerequisites: MGMT 3013.
Description: Fundamentals of effective negotiation and dispute resolution practices. Current theory, strategies and tactics. More effective negotiations and how to secure "win-win" solutions. May not be used for degree credit with MGMT 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4743 Advanced Sports Management
Prerequisites: MGMT 3943.
Description: This course builds on the material covered in MGMT 3943. More in-depth coverage is given to selected topics related to managing a sports entity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4750 International Leadership Experience
Description: This course focuses on developing leadership skills through international travel. Students will learn the skills and values used by leaders in other countries. The cultural and business environment faced by leaders in other countries will also be explored. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4793 Research Studies on People and Organizations
Prerequisites: MGMT 3013
Description: Introduction to research studies in contemporary management topics. Students will be exposed to cutting edge research topics and learn how to generate literature searches, write testable hypotheses, operationalize variables, design experimental studies and disseminate research results. The aim of this course is not to make you an expert in a particular topic or area, but to help you determine what designs and approaches would be most appropriate to answer your research questions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4813 Talent Acquisition
Prerequisites: MGMT 3313.
Description: This course focuses on the theories and methods of recruiting and selecting employees; such as, job analysis, human resource planning, recruiting, employment laws, and staffing. Staffing methods include interviews, references, application blanks, cognitive ability, personality tests, and others. Development and critique of a selection plan as well as conduct of a behavioral interview are analyzed. May not be used for degree credit with MGMT 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4843 Strategic Sport Management
Prerequisites: MGMT 3943.
Description: An in-depth analysis and review of revenue generation in the sport industry. Topics will include past and present examples from many different types of sports, both in the United States and internationally. Revenue generation strategies will be discussed in terms of management planning and decision making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4850 Applied Leadership Studies
Prerequisites: MGMT 3013.
Description: Structured internship of field project with supporting academic study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

MGMT 4883 Multiple Perspectives in Global Management
Prerequisites: MGMT 3013 or MGMT 3123.
Description: View of how multinational corporations and cross-border business transactions have an impact on countries, cultures, employees, and ecological systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4943 International Sports Management (G)
Description: A broad overview of the industry of sports around the globe. The historical, political, cultural, and business influences of sport development and management across the world will be discussed. The similarities and differences in organizational and management strategy from various countries, regions, and continents will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

MGMT 4963 Online and Mobile Gaming Management
Prerequisites: MGMT 3013 and LSB 3213.
Description: Comprehensive overview of the online and mobile gaming industry in the United States. Students will conduct immersive examinations and work collaboratively to understand the key components of managing a business in the highly regulated online and mobile gaming industry. Comparisons of online gaming and brick-and-mortar gaming will be explored. May not be used for degree credit with MGMT 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 5011 Crucial Interactions
Description: Examines methods for increasing positive communication between you and organizational members. Crucial conversations are those conversations that we must have. Ways to increase the free-flow of dialogue to maximize benefit from a crucial conversation are discussed. No credit for students with credit in MGMT 4011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5021 Managing Professional Relationships
Description: The study of political behaviors and ways to use them effectively in order to be successful in your career. Ways to be prepared for political dynamics at work and what you can do to emerge a winner will be discussed. No credit for students with credit in MGMT 4021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5031 Leading Organizational Change
Description: An introduction to ways of leading change in an organization to keep pace with the economy and the competition. Building an eight step process for developing, selling and implementing change initiatives. No credit for students with credit in MGMT 4031.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5033 Management of Sustainable Enterprises
Description: Students will be introduced to the social and natural environments and threats to sustainability. The course will cover the external drivers of sustainability as well as internal responses to these pressures. May not be used for degree credit with MGMT 4033. Previously offered as MGMT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5041 Performance Management
Description: A study of the role of a performance management (PM) system in an organization, the basic components of a PM system (standards, measurement, judgment and action), PM methods and performance management interviews and the Balanced Scorecard. No credit for students with credit in MGMT 4041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5051 Creating Ethical Work Places
Description: An examination of the meaning of ethics in business and human resource management, how ethical, work-related behavior can be maximized, and how ethical organizational cultures facilitate organizational effectiveness. Establishing and critiquing an ethics program and examining your own code of ethics. No credit for students with credit in MGMT 4051.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5061 Managing Confrontations
Description: Crucial confrontations directly address gaps between expectations and performance with a model that ensures individual and team effectiveness. Learn to hold people accountable, master face-to-face performance discussions, motivate without using power, enable without taking over, and move to action. It will improve the quality of your life and of your organization. No credit for students with credit in MGMT 4061.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5073 Management and Ethical Leadership
Description: This course focuses on the application and evaluation of real-life ethical dilemmas using ethical decision-making models. Students will evaluate personal value systems, individual, leadership driven, organizational, and community ethical issues. Students may not take both MGMT 4073 and MGMT 5073 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5083 Corporate and Social Responsibility
Description: Ethics and decision-making in corporations. Students will be exposed to managerial responsibility as well as social responsibility at the corporate level. Students may not take both MGMT 4083 and MGMT 5083 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5093 Management of Nonprofit Organizations
Description: Students will be introduced to the role of nonprofits in the economy including management systems, strategy, and the interface between nonprofits, other businesses and various stakeholders. May not be used for degree credit with MGMT 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5113 Individual and Organizational Behavior
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course integrates the fields of management principles and practices with the study of individual and group behavior within organizations. The focus will be upon translation of management and organizational behavior theory to practices that result in organizational effectiveness, efficiency, and human resource development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5123 Org Design & Research
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Examination of selected topics representing the most current management theories and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5133 Total Rewards
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course covers the development, implementation, and evaluation of compensation and benefits policies/programs. Students will learn the underlying theory as well as complete projects deemed necessary to master this material. Additionally, content will be provided to cover the legal environment, governing total rewards programs, administrative functions, and communication of total rewards programs' goals. May not be used for degree credit with MGMT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5153 Talent Development
Description: A study of training development (T&D) concepts and methods. A study of the theories, principles, methods, and related terminology of T&D and their application to T&D problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5163 Fundraising for Nonprofit Organizations
Description: Students will be introduced to the theory and practice of raising external funding for social causes. Course may include exposure to external speakers and nonprofit executives. May not be used for degree credit with MGMT 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5213 Seminar in Organizational Behavior
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Current research on group behavior in organizations. Group processes and structural factors affecting the interaction process and intra- and intergroup performance characteristics. Laboratory simulation and team research projects used to pursue advanced topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5223 Seminar in Human Resource Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Principles, theories and methods of human resource management applied to various types of organizations. Human resource functions of planning, staffing, training and development, performance management, compensation and benefits, safety and health, and labor relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5303 Corporate and Business Strategy
Prerequisites: FIN 5013 or concurrent enrollment.
Description: Key issues in formulating and implementing business and corporate strategies. The orientation of top management and diagnosis of what is critical in complex business situations and realistic solutions to strategic and organizational problems. Course previously offered as MBA 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5313 Project Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: The processes and techniques of managing projects in today's business world. The processes of idea generation, needs analysis, implementation, evaluation, and learning. The techniques of team building and conflict resolution in project management. Course previously offered as MSIS 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5323 Teams in Organizations
Prerequisites: MGMT 5113, admission to MBA program or consent of MBA director.
Description: The different ways in which organizations use teams. Many aspects of team development and the skills needed to effectively work in a team environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5453 Technology Commercialization
Prerequisites: Admission to MBA program or consent of MBA director.
Description: The steps involved in evaluating and commercializing new technologies. The necessary steps in moving from prototype to product.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5500 Special Projects in Management
Description: Structured internship, academic project, or field project on a management topic under the direction of a faculty member. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5533 Leadership Challenges
Prerequisites: MGMT 5113, admission to MBA program or consent of MBA director.
Description: Contemporary leadership practices. Leadership as a behavior, not as a position. The challenges of leadership, regardless of position.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5543 Human Resource Analytics
Description: Topics include: research methods, psychometrics, descriptive statistics, inferential statistics, correlation, linear prediction, and other methods as deemed necessary by the instructor. Students will show competence in proper data collection and evaluation techniques, as well as skills necessary to write up and present quantitative findings. Students will apply these concepts practically over the course of the semester and will be expected to develop their own data sets for analysis. Previously offered as MGMT 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5553 Management of Technology and Innovation
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Business applications of research, practice, and theory in the management of technology and innovation. To improve the effectiveness by which technologies are developed, implemented, and institutionalized. Emphasizes both management with advanced technologies and strategic management of technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5563 Crisis in Organizations
Prerequisites: MGMT 5113, admission to MBA program or consent of the MBA director.
Description: Management and leadership in the face of crisis, from the smallest mom and pop store to the largest multinational corporation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5613 Business Opportunity Identification and Analysis
Prerequisites: Admission to MBA program or consent of MBA director.
Description: The techniques required for locating business opportunities, assessing their feasibility, and evaluating their potential returns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5643 Sport Management
Description: Designed to give the student an understanding of the basic management skills necessary in the operation of sport organizations. Topics include the social, behavioral, and managerial foundations of sport management, public relations, finance, economics, and budgeting in the sport industry, and managing a sports facility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5673 Advanced Sport Management
Description: Builds on the material covered in MGMT 5643. More in-depth coverage is given to selected topics related to managing a sports entity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5713 Negotiation and Third-Party Dispute Resolution
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course is designed to improve students personal effectiveness and increase their productivity by drawing on the latest research in the psychology of judgment combined with the art of negotiation and decision-making. Students learn to develop effective strategies and systematic approaches to negotiations and influence opportunities. May not be used for degree credit with MGMT 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5743 Intl Negotiations
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Improvement of negotiation skills and learn how cultural and national issues affect negotiations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5750 International Leadership Experience
Description: This course focuses on developing leadership skills through international travel. Students will learn the skills and values used by leaders in other countries. The cultural and business environment faced by leaders in other countries will also be explored. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5800 Special Topics in Management
Description: Exploration of emerging management topics. Specific topics will vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5823 Talent Acquisition
Description: This course focuses on the process of talent acquisition. Course topics include: human resource planning, position analysis, recruiting practices, selection, employment offers, and verification procedures. Students will study underlying human resource management theory and complete projects deemed necessary for mastery of the material. The course will also cover material related to the development, implementation, and evaluation of selection systems and the legal environment as it pertains to talent acquisition. Related topics will be discussed at the discretion of the instructor. May not be used for degree credit with MGMT 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5843 Advanced Strategic Sports Management
Description: Brand management in collegiate sports, the role of collegiate athletics in higher education in the United States, brand management in sports merchandising and entertainment, stadium financing and politics, franchise movement, legal cases, biographical stories, and the role of sports and tourism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5943 Advanced International Sports Management
Description: Historical, political, cultural, and business influences of sport development and management across the world. Emphasis on similarities and differences in organizational and management strategy form various countries, regions and continents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5963 Online and Mobile Gaming Management
Description: Comprehensive overview of the online and mobile gaming industry in the United States. Students will conduct immersive examinations and work collaboratively to understand the key components of managing a business in the highly regulated online and mobile gaming industry. Comparisons of online gaming and brick-and-mortar gaming will be explored. May not be used for degree credit with MGMT 4963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6303 Advanced Human Resource Management
Description: Theory and research focusing on understanding human interactions in organizational contexts. The topics fall within the organizational behavior/human resources (OB/HR) domain and include work performance, counterproductive work behavior, individual differences, recruiting and selection, performance management, turnover, norms, and organizational culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6313 Advanced Organizational Behavior
Prerequisites: Doctoral student standing and consent of instructor.
Description: Theory and research focusing on individual and group behavior in organizations. Both classic and contemporary topics in organizational behavior, including work attitudes, motivation, job design, leadership, group processes, power and politics, and individual differences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6323 Advanced Strategic Management
Prerequisites: Doctoral student standing and consent of instructor.
Description: Research concerning the content of organizational strategy and the process through which it is formulated and implemented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6333 MESO Organization Studies
Prerequisites: Doctoral student standing and consent of instructor.
Description: Integration of macro- and micro-level concepts and topics across individual, group and organizational levels of analysis. Work and organization design, teams and groups, decision-making, and conflict management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6343 Contemporary Research in Management I
Prerequisites: Doctoral student standing and consent of instructor.
Description: Introduction to the research process in management and building a career as a management scholar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6353 Research Design
Prerequisites: Doctoral student standing and consent of instructor.
Description: Course examines issues in theory building and development, strategies for collecting behavioral research. At conclusion of course, student should be able to: develop research questions, develop appropriate measures for constructs to be tested, and design research study using various methodologies. Same course as BADM 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6363 Advanced Organization Theory
Description: Advanced organization theory in the field of management research. Analysis of key theoretical contributions within the field of management and related disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6383 Applied Regression and ANOVA
Description: Focus on regression models and associated methods, data analysis, interpretation of results, statistical computation and model building. Students will be introduced to managing data and analysis, simple and multiple linear regression, regression assumptions, the use of categorical variables; residuals and diagnostics; model building/variable selection, and sources of bias including common method variance and endogeneity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6443 Contemporary Research in Management II
Prerequisites: Doctoral student standing and consent of instructor.
Description: Specialized contemporary topics in management for doctoral students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6453 Advanced Multivariate Regression
Prerequisites: Doctoral student standing and consent of instructor.
Description: Topics include psychometrics, construct validation, factor analysis, moderation, mediation, polynomial regression and response surface analysis, logistic regression, path and panel analyses, and longitudinal analyses. The focus is on developing mastery of data analyses using regression and structural equation modeling software (SEM), interpreting analyses, and developing practical research skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6553 Applied Multivariate and Structural Equation Modeling
Prerequisites: Doctoral student standing and consent of instructor.
Description: Focuses on developing and testing more nuanced hypotheses such as those involving moderated mediation, change, and non-linear effects. In addition, more sophisticated analytical approaches necessary to deal with complex samples, contexts, and measurement will be introduced; such as, structural equation modeling, multilevel modeling, polynomial and spline regression, and logistic regression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

Management Science & Information Systems (MSIS)

MSIS 2103 Business Data Science Technologies
Description: The class focuses on problem solving with data analytics tools and technologies that are key to organization decision making. Emphasis is placed on decision making with spreadsheets and databases. Key information systems and cybersecurity concepts are also studied.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 2203 Computer Programming for Business
Description: Problem solving and computer programming for business. Fundamental principles and constructs of programming. Fundamentals of a current applied business programming language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 2233 Business Analytics Fundamentals (Q)
Prerequisites: 3 hours of MATH or STAT with "A" designation.
Description: Introduces the basic concepts of business and data analytics utilizing spreadsheets and visualization software. Topics will include a review of necessary business quantitative skills, applicable descriptive analytics measures, probabilistic decision-making and how to tell an "effective story" through the use of data and analytics tools. May not be used for degree credit with CPS 4213. Previously offered as BADM 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
General Education and other Course Attributes: Analytical & Quant Thought

MSIS 3023 Technology, Diversity and Entrepreneurship
Description: A study of technology, diversity and entrepreneurship. The use of technology as a research tool to study diversity and the opportunities available to diverse groups through entrepreneurship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3103 End User Database Systems Design and Management
Prerequisites: Non-MIS or CS or Business Analytics or Data Analytics or Accounting Systems majors only.
Description: Intended for less technically oriented students who wish to gain an understanding of relational databases. Principles and techniques of logical database design and related database concepts. Analysis, design and implementation of a database system using a relational DBMS. No credit for students in the MIS, Business Analytics, Data Analytics or Accounting Systems majors. Students desiring a more technical approach should take MSIS 3333 instead.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3153 International Telecommunications Business Environment
Description: This course concentrates on understanding the implications and challenges of utilizing telecommunications networks in today's global business environment. Emphasis will be placed on identifying the major players in the global information infrastructure, standards setting bodies and procedures, and the various regulatory processes encountered. Students will research the telecommunications industry in other countries and develop comprehensive written reports. Course previously offered as TCOM 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3163 Web Design Essentials
Description: Web design principles including UX/UI, HTML/CSS, scripting, database management, and other relevant topics using the latest professional tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3203 Advanced Computer Programming for Business
Prerequisites: MSIS 2203.
Description: Advanced programming features are examined with an emphasis on the development of computer programs for business applications. Previously offered as MSIS 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3223 Principles of Data Analytics
Prerequisites: MSIS 2103 and (MSIS 2233 or MATH 2103 or higher).
Description: Problem solving with descriptive, predictive and prescriptive analytics in a business context using spreadsheets and other analytic tools. Techniques include forecasting, optimization, location analysis, decision analysis, inventory management, among others. May not be used for degree credit with CPS 4213. Previously offered as MGMT 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3233 Management Science - Prescriptive Analytics
Prerequisites: MSIS 3223.
Description: Prescriptive analytics applied to resource allocation and operational problems encountered in accounting, economics, finance, management and marketing. Linear programming, goal programming, integer programming, and network models.. Previously offered as MGMT 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3243 Descriptive Analytics
Prerequisites: MSIS 3223.
Description: Application of descriptive analytics, especially from a "big data" perspective. Previously offered as MGMT 3243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3253 Supply Chain Operations and Analytics
Prerequisites: MSIS 3223.
Description: Practical tools that support supply chain operations using relevant data and analytic models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3293 Business Analytics Programming
Prerequisites: MSIS 2103 or MSIS 2233.
Description: Fundamental principles of programming for business analytics, with a focus on data wrangling concepts and tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3333 Database Systems Development
Description: This class is intended for those technically oriented students earning a MIS, DA, ACCT, MATH, STATS, or CS degree and/or taking classes to fulfill Data Science options or other certificate programs that require a data base course. Database design principles focusing on database modeling with hands-on creation, population and querying of transactional databases using SQL. May not be used for degree credit with MSIS 5643. Course previously offered as MSIS 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3363 Web Application Development
Prerequisites: MSIS 2203 and MSIS 3333.
Description: Develop web applications involving database development, user interface design, and asynchronous client-side programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3393 Advanced Spreadsheet Modeling and Programming
Prerequisites: MSIS 2103 and permission of instructor.
Description: This class provides students with advanced spreadsheet skills, including the ability to formulate math programming models, simulations, risk analysis, and other business decision-making tools. The class will also provide students with an introduction to spreadsheet programming (VB, macros, etc.), building decision support systems in spreadsheets, etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3931 Diversity Impacts in Information Systems (D)
Description: Critical analysis of the impact of technology on socially-defined classifications such as race, ethnicity, age, gender, sexuality, and disability; and how those groups affect technology industries. Through reading, observation, discussion, and writing; students will have their own perceptions challenged to better understand technology interaction through and with diverse populations, and how relationships between those groups may be improved or worsened as a result of mediated communications.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
General Education and other Course Attributes: Diversity

MSIS 4003 Systems Analysis and Design
Prerequisites: MSIS 3363.
Description: This course covers the core concepts and skills for developing software in an organizational context, including agile software development techniques, as well as the socio-cultural aspects of the systems analysis and design process. May not be used for degree credit with MSIS 5653. Course previously offered as MSIS 3303 and MGMT 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4010 Applied Analytics and Information System Studies
Prerequisites: Departmental permission.
Description: Structured internship, field study or independent project with supporting academic study. Intended primarily for students pursuing a Data Analytics or MIS degree, or related areas or certificate programs. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys

MSIS 4020 Applications Software Tools and Techniques
Prerequisites: Permission of instructor and/or department.
Description: Hands-on experience with selected software-based tool or programming languages such as SAP, SQL, PERT/CPM, etc. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4033 Information Systems Project Management and Communication
Description: This class discusses the multi-faceted dimensions critical to successfully leading information systems projects. Topics will include behavioral, strategic, technical, quantitative and communications issues faced by those directing projects. May not be used for degree credit with MSIS 5033. Course previously offered as MSIS 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4053 Supply Chain Security and Risk Analysis
Description: This course examines the threats and vulnerabilities to an organization's supply chain and identifying controls that can be used to mitigate such threats. Physical and cyber will be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4063 STUDY ABROAD: Contemporary Global Impacts in IT, Analytics and Cybersecurity
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S. An increased focus will be placed on IT, Analytics, Cybersecurity and Supply Chain Management issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4111 Technology Success Skills Application
Prerequisites: Junior or senior standing.
Description: Advanced professional development and networking for information systems and analytics students. Intended primarily for Data Analytics and MIS majors, as well as those outside the department (and college) pursuing certificates in related areas such as Data Systems, Supply Chain Management, and other areas.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4123 Cybersecurity Systems Management
Description: A broad investigation of the elements of cybersecurity with an emphasis on the management impact and risk assessment and mitigation for all types of information and privacy threats to corporations and businesses. May not be used for degree credit with MSIS 5213. Previously offered as MSIS 3123, MSIS 4223 and MGMT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4133 Information Technologies for Electronic Commerce
Prerequisites: MSIS 4003.
Description: The Internet and web-based technologies, systems and applications that allow organizations to overcome the barriers of time and distance for conducting commerce. Scripting and markup languages, web programming tools, and the connectivity technologies for designing and developing electronic commerce and systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4153 Supply Chain Systems and Technologies
Description: This course covers the underpinning technologies, systems, platforms and models that enable the design, management and control of digitally connected supply chains.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4233 Applied Ethical Hacking
Prerequisites: MSIS 4123, MSIS 4523.
Description: Technical aspects of attacking and guarding against (cybersecurity) attacks in information systems. Course content includes ethical hacking concepts and defense protection topics. May not be used for degree credit with MSIS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4243 Digital Forensics and Incident Response
Prerequisites: MSIS 4123.
Description: Procedures for identification, preservation and extraction of electronic evidence. Provides an understanding of underlying theory and strategy of investigations. May not be used for degree credit with MSIS 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4253 System Certification and Accreditation
Prerequisites: MSIS 4123.
Description: Introduction to the certification and accreditation process. Risk analysis, system security analysis, and other topics. Previously offered as MGMT 4253. May not be used for degree credit with MSIS 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4263 Business Intelligence and Predictive Analytics
Description: Applied knowledge management tools and techniques for organizational decision support. Predictive analytics, machine learning, and other emerging techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4273 Legal and Ethical Issues in Information Systems
Description: Reviews the current status of information systems law in regard to rights of privacy, freedom of information, confidentiality, work product protection, copyright, security, legal liability, ethical issues, and a range of additional legal and information policy topics. Investigates the legal difficulties that technological innovations are causing in all of these areas. Legal options for dealing with the conflicts caused by technological change and likely adaptations of the law over time in response to societal changes will be explored. May not be used for degree credit with MSIS 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4283 Operating Systems for Information Assurance
Description: Operating Systems (OS) concepts for security. Vulnerabilities and threats. Security models. User authentication. Smart cards: architectures, technologies, application environments, and case studies. System availability. Software and data integrity. Auditing. Sensitive data confidentiality. Access control. Secure OS development: design principles, design methodologies, security certification. Case studies: Unix/Linus, MS/Windows XP/2000.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4333 Data Wrangling
Prerequisites: MSIS 3293 and MSIS 3333.
Description: Foundations of data wrangling, specifically the skills needed to load, clean, transform, and structure data from diverse sources, in both traditional and cloud-based data warehousing architectures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4363 Advanced Application Development
Prerequisites: MSIS 4003 and MSIS 3363.
Description: Managing the software development pipeline. Topics include creating build/release pipelines for continuous integration/deployment, containerizing applications and emerging DevOps topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4373 Advanced Topics in Management Information Systems
Prerequisites: Senior standing and consent of instructor.
Description: Current and emerging advanced topics in the field of management information systems. Advanced network management, advanced electronic commerce issues, international management information systems and legal and regulatory issues in telecommunications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4443 Advanced Topics in Analytics and Artificial Intelligence
Description: Emerging topics in analytics, including simulation, business dynamics, blockchain/cryptocurrency, artificial intelligence, supply chain, among others. Previously offered as MGMT 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4523 Infrastructure Development
Description: Broad coverage of network types and protocols used to drive the diverse voice, video and data needs of today's business. Network vocabulary and the understanding of how telecommunications components function are stressed. May not be used for degree credit with MSIS 5203. Previously offered as MGMT 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4623 Data Science Programming
Prerequisites: MSIS 3293
Description: Programming concepts and applications for data science, analytics, and business intelligence. May not be used for degree credit with MSIS 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4673 Data Visualization
Description: This course will provide an understanding of the role of descriptive analytics, visualization, and dashboarding in direct support of managerial decision making (business intelligence and analytics). May not be used for degree credit with MSIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4713 Scripting Essentials
Description: Application of scripting languages (e.g. BASH, PowerShell, Python) for general business, data and information assurance solutions. May not be used for degree credit with MSIS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4943 Sports Management Analytics
Prerequisites: MSIS 2233
Description: Useful decision tools such as analytics, visualization, optimization, decision analysis, forecasting and simulation are used to address decisions faced by sports administrators and decisions made during sporting contests. Current 'hot' issues in sports decision-making will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5020 Advanced Applications Software Tools
Description: Advanced hands-on experience with selected software-based tool or programming languages such SAP, SQL, PERT/CPM, etc. For graduate credit only. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5033 Information Systems Project Management
Prerequisites: Graduate standing.
Description: This class covers the important multi-faceted dimensions of directing and leading information systems projects. Topics will include behavioral, strategic, technical and quantitative issues faced by information system project teams. May not be used for degree credit with MSIS 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5123 Enterprise Resource Planning
Prerequisites: Admission to a graduate program.
Description: Challenges of data integration and redesign of processes in organizations. Introduction to enterprise resource planning (ERP) concepts, software, and practices. ERP issues architecture, planning, design, implementation, and project management. Extensions of ERP Technologies for managing supply chains and customer relationships. Emerging trends.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5133 Advanced Web Based Application Development
Prerequisites: Graduate standing and MSIS 5643 or equivalent.
Description: Development of n-tier web-based applications, including concepts and technologies relating to the presentation, business, and data tiers. Technologies include (but are not limited to) browser and other client programming, server-side programming, data tier programming and XML technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5193 Programming for Data Science and Analytics I
Prerequisites: Graduate standing and computer programming proficiency, or consent of instructor.
Description: Programming concepts and applications for data science, analytics, and business intelligence covering data manipulation, data derivation, web content mining, visualization, text mining, and other topics. May not be used for degree credit with MSIS 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5203 Advanced Infrastructure Development
Description: Broad coverage of the underlying infrastructure necessary for information systems operation. Understanding and experience with essential network connectivity as well as server and service architecture to support information systems is emphasized. May not be used for degree credit with MSIS 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5213 Cybersecurity Systems Management
Description: A broad investigation of the elements of cybersecurity with an emphasis on the management impact and risk assessment and mitigation for all types of information and privacy threats to businesses. Course previously offered as TCOM 5223. May not be used for degree credit with MSIS 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5223 Programming for Data Science and Analytics II
Prerequisites: MSIS 5193 and graduate standing.
Description: Programming concepts and applications for data science, analytics, and business intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5233 Advanced Applied Ethical Hacking
Prerequisites: MSIS 5213 and MSIS 5203.
Description: Advanced technical aspects of ethical hacking concepts and defense protection strategies for information systems. May not be used for degree credit with MSIS 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour and Business Graduate Program fee of $6 per credit hour apply.

MSIS 5243 Information Technology Forensics and Incident Response
Description: Review of systems for vulnerabilities and analysis of systems that have been breached including incident response. May not be used for degree credit with MSIS 4243. Course previously offered as TCOM 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5253 Advanced System Certification and Accreditation
Prerequisites: MSIS 5213.
Description: Preparing information systems for operational status requires significant planning and sound execution. Covers the key components of the certification and accreditation process, including risk assessment and mitigation, system security analysis, controls and system documentation. May not be used for degree credit with MSIS 4253. Course previously offered as TCOM 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5263 Information Assurance Offense
Prerequisites: MSIS 5233 and graduate coordinator permission.
Description: Learning successful computer attacks so as to recognize and apply appropriate security controls for system vulnerabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5273 Legal and Ethical Issues in Information Technology
Description: This course reviews the current status of information systems law in regard to rights of privacy, freedom of information, confidentiality, work product protection, copyright, security, legal liability, ethical issues and a range of additional legal and information policy topics. May not be used for degree credit with MSIS 4273. Course previously offered as TCOM 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5283 Secure Information Systems Administration
Prerequisites: MSIS 5213 and MSIS 5773 and graduate coordinator permission.
Description: Introduction to basic concepts and technologies relevant to secure information systems administration. The topics covered in this course include, but are not limited to, operating system (OS) hardening, securing servers, network protection, and various access control mechanisms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5293 Information Assurance Capstone
Prerequisites: Final semester in program; graduate coordinator permission.
Description: This capstone course takes a strategic view of corporate information assurance. The goal is to provide an overarching view of an information assurance program to include physical, personnel, operational, and cyber security, including the underlying legislation and Federal and state regulations that drive corporate IA programs and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5303 Prescriptive Analytics
Prerequisites: Admission to a SSB graduate program.
Description: Application of prescriptive analytic techniques to business problems. Some descriptive analytics may also be covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5313 Supply Chain Analytics
Prerequisites: Graduate standing.
Description: Introduction to supply chain analytics including forecasting, scheduling, inventory, distribution, site selection, and other analytical tools and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5393 Advanced Spreadsheet Modeling
Description: Advanced spreadsheet modeling skills critical to business problem solving. Presentation, analysis, solution and communication facets are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5410 Advanced Topics in Information Assurance
Prerequisites: Graduate standing and consent of program director.
Description: Advanced topics in information assurance and security. Course previously offered as TCOM 5410. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5413 Advanced Data Science Applications
Prerequisites: Graduate standing and permission of instructor.
Description: Special topics with an emphasis on emerging tools and techniques in the broad field of data science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5503 Statistics for Data Science
Prerequisites: Graduate standing.
Description: Data Science focuses on the analysis of large secondary data sets. This course focuses on understanding and applying statistical models and techniques to obtain useful information from large data sets. These techniques are part of supervised statistical machine learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour and Business Graduate Program fee of $6 per credit hour apply.

MSIS 5600 Special Projects in Business Information Systems
Prerequisites: Consent of MS in MIS director.
Description: Study of advanced topics not covered directly in other classes or directed study under the supervision of a faculty member. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5613 Advanced Supply Chain Analytics
Prerequisites: MSIS 5313.
Description: Advanced tools and analytic techniques used in the supply chain field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5623 Information and Network Technology Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Major principles and impact of information technology from a manager's perspective in relation to the operation and success of businesses in today's global digital economy. Topics include the Internet, networks and wireless systems, database management systems, decision support systems, social media and e-business applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5633 Predictive Analytics Technologies
Prerequisites: Graduate standing.
Description: A comprehensive analysis of contemporary business intelligence tools and techniques used in managerial decision-making, including decision support systems, data and text mining, knowledge management, expert systems, neural networks, and other tools and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5643 Graduate Database Management
Prerequisites: Graduate standing.
Description: Practical foundations of database systems. Current and emerging issues in the database field. May not be used for degree credit with MSIS 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5653 Advanced Systems Analysis and Design
Prerequisites: Graduate standing.
Description: Systems thinking. Systems life cycle, modeling approaches, methods, tools, and techniques of systems analysis and design for the development of modern organizational information systems. May not be used for degree credit with MSIS 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5663 Advanced Data Wrangling
Description: Provides an introduction of the major activities involved in data engineering. These activities include understanding fundamental principles and concepts, design principles, and prototype development to include table definitions, ETL logic, and example report definitions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5673 Descriptive Analytics and Visualization
Description: This course will provide an understanding of the role of descriptive analytics, visualization, and dashboarding in direct support of managerial decision making (business intelligence and analytics). Specifically, knowledge about managerial decision making, business intelligence, analytics, decision support systems and how they relate to other types of information systems; knowledge about human visual processing in relation to data presentation; knowledge of dashboard design and management; and knowledge about software packages and hands-on capabilities. May not be used for degree credit with MSIS 4673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5683 Advanced Analytics Technologies
Description: Project-based study of advanced application of analytic and data wrangling/data engineering type tools for large scale systems. Cannot be used for Degree credit with CS 6583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5693 Digital Transformation Strategy
Prerequisites: Graduate standing.
Description: This course covers a variety of practical and timely managerial and technical challenges faced by organizations as the new digital society and workplace continues to evolve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5713 Scripting Essentials
Description: Application of scripting languages (e.g. BASH, PowerShell, Python) for general business, data and information assurance solutions. May not be used for degree credit with MSIS 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5773 The Upper Layers of Telecommunications Systems
Description: This course is designed to develop a solid and deep understanding of data/telecommunications networks. The course covers various technical components and their functions in today's communication networks, with a special focus on the upper layers of the TCP/IP protocol suite (i.e., Network, Transport, and Application). The topics covered in the course will include, but not be limited to IP packet delivery, forwarding, and routing, UDP and TCP, dynamic host configuration (DHCP), domain name (DNS) lookup, and other widely used Internet applications (e.g., Web and email). Course previously offered as TCOM 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5793 Business Applications of Artificial Intelligence
Prerequisites: Graduate Standing.
Description: Project-based study of advanced practical business applications of Artificial Intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5900 Practicum in Management Information Systems
Prerequisites: Consent of director of and admission to the MS in MIS program.
Description: Application of MIS-related methods and skills in a business environment. Integration of knowledge through real-world problem solving situations in organizational contexts. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5950 Advanced Practicum
Prerequisites: Consent of director of and admission to the MS in MIS program.
Description: Application of MIS-related methods and skills in a business environment beyond the normal practicum/internship timeframe. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5990 Directed Studies in Information Assurance
Prerequisites: Graduate standing and consent of program director.
Description: Special advanced topics, projects and independent study in information assurance and security. Course previously offered as TCOM 5990. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6200 Advanced Topics in Management Information Systems
Prerequisites: Doctoral student status and consent of instructor.
Description: Special advanced topics in management information systems for doctoral students. Offered for variable credit, 3-6 credit hours, maximum of 12 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys

MSIS 6300 Contemporary Topics in MSIS Research
Prerequisites: Doctoral standing.
Description: In depth study in one or more topics in MSIS field. An ongoing conversation about major issues in the field. Topics related to any one of the areas within the broad, interdisciplinary field of management science and information systems, such as management information systems, management science, telecommunications, and operations management. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6303 Overview of Information Systems Research
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to become familiar with research streams and domains within Information Systems including theory, methods, paradigms, and various perspectives. Students will develop critical thinking and logical reasoning skills, as well as oral and written communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6313 Privacy and Security Research in Information Systems
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to develop an understanding of the research domains of privacy and security in Information Systems. Potential topics covered include conceptualization of concepts (e.g. intention vs. behavior, traits and states), contextual influences (e.g. e-commerce, healthcare, social media, data breaches), and methods (e.g. behavioral economic vs. hypothetical).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6323 Seminar on Qualitative and Mixed-Methods Research
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to provide an introduction to qualitative and mixed methods and their use in scholarly research. Drawing upon well regarded courses by top IS scholars, the course balances understanding qualitative research with the application of that understanding to business research. Within a seminar class format, this course develops skills in designing, evaluating, and understanding qualitative research methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6333 Overview of MSIS Research
Prerequisites: Doctoral standing.
Description: Recent research studies that fall within the broad, interdisciplinary field of management science and information systems. An introduction to the academic "way of life", focusing on research productivity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6343 Advanced Methods in MSIS Research
Prerequisites: Doctoral standing.
Description: Development of advanced methodological skills necessary to carry out research in the chosen area of study within the field of MSIS. Skills related to any one of the areas within the broad, interdisciplinary field of management science and information systems, such as management information systems, management science, telecommunications, and operations management. Same course as BADM 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6353 Seminar in Data Analytics
Prerequisites: Doctoral Standing.
Description: The objective of this course is for the PhD student to develop an in-depth understanding and appreciation of business analytics and data science as viable research streams.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

Marketing (MKTG)

MKTG 3112 Marketing
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3213 Marketing (S)
Prerequisites: Minimum of 45 credit hours.
Description: Marketing strategy and decision-making. Consumer behavior, marketing institutions, competition and the law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: Society & Human Behavior

MKTG 3223 Supply Chain Management
Prerequisites: MKTG 3213.
Description: An economic and operational analysis of the physical flow of goods and materials. A system interpretation of marketing channels. Previously offered as MKTG 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3311 Managing your Personal Brand: Name, Image, & Likeness
Description: Learn the marketing and business concepts necessary for elevating a personal brand, social media influence and entrepreneurial earning power. Students will gain knowledge about marketing theory, strategy and tactics of successful branding with emphasis on audience engagement, generating followers, storytelling, and methods for leveraging your position. Students will also gain insights from current professional athletes to learn proven best practices.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3313 Personal Marketing and Professional Development
Prerequisites: MKTG 3213.
Description: The purposes of this course are (1) to provide an understanding of the role of marketing as applied to the individual student and (2) to provide students basic skills necessary for a successful business career. The course will make extensive use of outside speakers (e.g. professional trainers, alumni, recruiters, professors) covering a broad range of topics. In addition, the course will have a strong experiential dimension (both within and outside the classroom). Previously offered as MKTG 2313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3323 Consumer and Market Behavior
Prerequisites: MKTG 3213.
Description: Qualitative and quantitative analyses of the behavior of consumers; a marketing consideration of the contributions of economics and the behavioral disciplines to consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3333 Nonprofit Marketing
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge with attention given to those concepts and methods used in nonprofit marketing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3433 Promotional Strategy
Prerequisites: MKTG 3213.
Description: Promotional policies and techniques and their application to selling problems of the firm.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3473 Professional Selling
Prerequisites: MKTG 3213.
Description: Skills to understanding the professional personal selling process. Strong emphasis on the communications function of personal selling. Lecture sessions combined with experiential exercises and role playing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3511 Sales Practicum
Prerequisites: MKTG 3213, MKTG 3513 or concurrent enrollment in MKTG 3513.
Description: Students use their work experience, and other resources, to gain a practical understanding of sales marketing. Students must have a sales position (paid or volunteer) where they work at least 100 hours over the course of the semester.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3611 Retailing Practicum
Prerequisites: MKTG 3213, MKTG 3613 or concurrent enrollment in MKTG 3613.
Description: Students use their work experience, and other resources, to gain a practical understanding of Retail Marketing. Students must have a retail position (paid or volunteer) where they work at least 100 hours over the course of the semester.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3613 Retailing Management
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge, with attention given to those concepts and methods which provide the necessary foundation for a retailing manager.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3653 Marketing Analytics
Prerequisites: MKTG 3213.
Description: Students will learn how to turn marketing data into useful information, and how to use this information to make marketing decisions. Using basic software, students will learn to identify patterns, display the patterns for useful presentation, and base managerial marketing decisions on the analysis. Tools and software are user-friendly and widely used in business. (No programming or equations are required.)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3713 Sports Marketing
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge with attention given to those concepts and methods used in sports marketing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3813 Business to Business Marketing Management
Prerequisites: MKTG 3213.
Description: A strategic overview of the marketing of products and services to business, government and not-for-profit organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3873 Marketing or International Business Internship
Prerequisites: MKTG 3213 and two other marketing classes and must be marketing or international business major and instructor approval.
Description: Students will complete an internship with a private business, NGO, or governmental organization. Students will communicate the lesson learned from this experience. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3993 International Business (G)
Description: Development of international business strategy based on the integration of economic, accounting, financial, management and marketing concepts. Previously offered as BADM 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: International Dimension

MKTG 4053 Study Abroad: Contemporary Global Impacts in Marketing & International Business
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4093 Current Topics International Business
Prerequisites: MKTG 3993.
Description: In this course, students will become familiar with the large-scale changes in the international business environment that are currently taking place and the possible implications of these changes for corporations. These include globalization of markets, labor and skill mobility, automation and future of jobs, and sustainability. The course uses readings and in-class discussions of the current trends and issues in international business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4123 Influencer Marketing
Prerequisites: MKTG 3213.
Description: Influencer marketing involves using an individual's name, image, likeness, reputation, or personal communication to sell ideas, products, and/or services. Athletes, celebrities, podcasters, musicians, and many others can become successful influencers. The rise of digital communication and marketing tools has greatly heightened the presence and importance of influencer marketing. In this course, students learn influencer marketing strategies and best practices for capitalizing on opportunities to monetize influencer opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4213 Advanced Supply Chain Management
Prerequisites: MKTG 3223
Description: Ever wonder how your favorite companies like Amazon, Starbucks, Walmart and FedEx get things from one end of the country to the other overnight? This course will answer such puzzling questions by providing students with an overview of supply chain management. Students in this course will learn how technology and managerial ingenuity come together to create supply chain excellence.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4233 Purchasing & Strategic Sourcing in Supply Chain Management
Prerequisites: MKTG 3213
Description: This course is designed to provide an introduction to the field of purchasing and supply management. It covers topics such as how supply is organized within organizations, the standard acquisition process, purchasing-related information systems, cost management tools, negotiation strategies, supplier selection, metrics, purchasing capital goods, purchasing services, outsourcing, buyer-supplier relationships, and purchasing strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4243 Transportation Modalities and Logistics Management in the Supply Chain
Prerequisites: MKTG 3213
Description: This course will consist of an enriching approach of teaching transportation and logistics strategies in Supply Chain Management, while taking a deeper dive into technology, sourcing, transportation, warehousing, materials handling and returns. Students will also be provided unique opportunities to have in person tours and face to face discussions with supply chain leaders in multiple businesses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4263 Entrepreneurial Marketing
Prerequisites: EEE 3023. MKTG 3213, and completion of business core classes or instructor permission.
Description: Examination of the roles of marketing in entrepreneurial ventures and entrepreneurship in the marketing efforts of any organization. Emphasis on marketing as it relates to risk management, resource leveraging and guerrilla approaches. May not be used for degree credit with EEE 5223 or MKTG 5223. Same course as EEE 4223. Previously offered as MKTG 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4333 Marketing Research
Prerequisites: MKTG 3213 and MKTG 3323 and MSIS 2103.
Description: Basic research concepts and methods. Qualitative and quantitative tools of the market researcher.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4343 Brand Marketing
Prerequisites: MKTG 3213 and MKTG 3323.
Description: Examines the broad topic of brand marketing. Consumers, competitors, the media, and the government all focus on the brand as the basic unit of marketing. Thus some of the most important and exciting elements of modern business involve conceiving, building, and marketing the brand. Important issues such as building and measuring brand equity, brand positioning, brand names and logos, and global branding will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4443 Social Issues in the Marketing Environment (D)
Prerequisites: MKTG 3213.
Description: Social and legislative considerations as they relate to the marketplace.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: Diversity

MKTG 4473 Advanced Professional Selling
Prerequisites: MKTG 3213 and MKTG 3473 and Instructor Permission.
Description: The course builds upon the introductory sales class providing students with advanced skills for professional selling. Emphasis will be placed on practical applications through role play of a complete sales process from initial prospecting to closing the sale with high customer satisfaction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4513 Sales Management
Prerequisites: MKTG 3213.
Description: Sales planning and control, organization of the sales department, developing territories, motivating salespersons and control over sales operations. Previously offered as MKTG 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4543 Social Media Strategies
Prerequisites: MKTG 3213.
Description: This class will focus on ways to build brand awareness and customer loyalty on a low budget. Topics covered will be social media, blogging, events, email marketing; analytics and more. May not be used for degree credit with MKTG 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4550 Problems In Marketing
Prerequisites: MKTG 3213.
Description: Problems in marketing. Specific topics vary from semester to semester. Previously offered as MKTG 4433. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 4553 International Marketing
Prerequisites: MKTG 3213.
Description: The conceptual framework for marketing into and from foreign countries. The development of action-oriented strategies with emphasis on the uncontrollable factors that affect marketing decisions in an international setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4613 Content Marketing Strategy
Prerequisites: MKTG 3213.
Description: At the intersection of development, creativity, and marketing, content marketing strategy is an art that requires an understanding of many different disciplines. Effective marketing content must be prepared strategically for a variety of different platforms: video, podcasting, online, mobile, social media, email marketing, and more. In Content Marketing Strategy, students learn the most common forms of content creation as well as the methods to drive website traffic and subsequent new business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4623 Marketing Design Essentials
Description: Learn practical tools and tips for putting together promotional campaigns and creating promotional assets for a wide range of businesses. Students will learn how to apply marketing and branding theory with design and get hands-on experience in putting creative promotional designs into print and digital form. This class will cover software such as Photoshop, InDesign and Illustrator. Students will learn content creation tools and will create a promotional kit by the end of the semester. May not be used for degree credit with MKTG 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4683 Managerial Strategies in Marketing
Prerequisites: A minimum of twelve credit hours in marketing.
Description: Analysis of the marketing management decision process; marketing opportunity analysis, strategy development, planning and integration with corporate strategy. Students may not take both MKTG 4683 and MKTG 4693 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4693 Marketing Strategy and Customer-Employee Interactions
Prerequisites: A minimum of twelve credit hours in marketing.
Description: Analysis of the marketing management decision process with respect to the customer-employee interface; management of frontline employees; marketing opportunity analysis, strategy development, planning and integration with corporate strategy. Students may not take both MKTG 4683 and MKTG 4693 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4713 Advanced Sports Marketing
Prerequisites: MKTG 3713
Description: This course will focus on exploring advanced marketing theories related to topics such as ethics and social responsibility, international marketing, marketing research and information systems, data analytics, consumer behavior, product and logistics management, branding and brand management, sales management, promotions, social media and networking, destination marketing, and evaluating performance, while also covering pricing structures and strategies, experiential marketing, new digital marketing communications and technology, emotional intelligence, and exploring case studies.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4773 Services Marketing
Prerequisites: MKTG 3213.
Description: Conceptual and managerial tools for students who intend to be involved with the marketing of services. Characteristics of services, listening to customers, managing customer expectations, conceiving and creating service breakthroughs, service quality, positioning of services, managing demand and supply, creating a strategic service vision and designing a customer focused organization to create and retain customers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4813 Sports Sales and Revenue Generation
Description: The ability to generate sources of revenue is one of the most important skills for individuals working in the sports industry. This course provides an in-depth understanding of the many ways in which sports organizations generate revenue and will teach students the practical concepts they will need for success. The course provides a comprehensive approach that can be applied in professional sport, intercollegiate and interscholastic athletics, other amateur sports, and organizations in recreational settings.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4850 Applied Marketing Studies
Prerequisites: 12 credit hours of marketing and consent of instructor.
Description: Structured internship or field project with supporting academic study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 4973 New Product Development
Prerequisites: MKTG 3213, MKTG 4333.
Description: The elements involved in creating and marketing a successful new product. Qualitative and quantitative methods will analyze data collected from focus groups, including surveys to test a new product concept.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4983 Data Base Marketing
Prerequisites: MKTG 3213, MKTG 3323, MSIS 2103 or consent of instructor.
Description: An information-driven process to develop, test, implement, measure, and adopt customized marketing programs and strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4993 Digital Marketing
Prerequisites: MKTG 3213.
Description: This course will give students a practical understanding of digital marketing, equipping them with the skills to perform key, digital marketing tasks such as SEO and pay-per-click advertising. At the end of the course, students will understand how a company can use the internet to promote its brand and market its products.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5133 Marketing Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Consideration at an advanced level of the major elements of marketing from the point of view of the marketing executive. Emphasis on problem solving and decision making; using an interdisciplinary approach. Development of an integrated, comprehensive marketing strategy..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5213 Services Marketing
Prerequisites: MKTG 5133.
Description: Services and services marketing with emphasis on services research and services management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5220 Seminar in Marketing
Prerequisites: MKTG 5133.
Description: Selected topics in marketing. Industrial marketing, product management, strategic marketing planning, international marketing, and services marketing. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 5223 Entrepreneurial Marketing
Prerequisites: Admission to MBA program or instructor permission.
Description: Interplay of entrepreneurship concepts and marketing concepts, including the role of marketing in entrepreneurial ventures, and the role of entrepreneurship in a firm's marketing efforts. Emphasis is placed on how to address the significant changes taking place in markets and the modern marketing function. May not be used for degree credit with MKTG 4263 or EEE 4223. Same course as EEE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5233 Global Competitive Environment
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Development of a global business strategy for the organization. Issues of highly diversified markets and business environments, global competition, financial markets, and complex organizational relationships. Same course as INTL 5233. Previously offered as MBA 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5243 Base SAS Programming for Database Marketing
Prerequisites: Admission in any graduate program.
Description: Learn basics of SAS programming, data manipulation in SAS environment and applications of SAS tools in the context of database marketing and business management. Class will help students prepare for Base SAS Programming and Advanced SAS Programming Certification Exam.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5253 Advanced SAS Programming for Marketing Analytics
Prerequisites: MKTG 5243 or consent of instructor.
Description: Advanced SAS techniques to create more efficient and powerful SAS programs for analyzing marketing and business data. Extensive use of SQL, Macro along with Arrays, Hash objects and memory control within SAS environment, Helps students prepare for Advanced SAS Programming Certification Exam.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5313 Marketing Research Methodology
Prerequisites: MKTG 5133.
Description: Research methodology applied to marketing problems. Measurement, survey research, experimentation, and statistical analysis of data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5333 Marketing for Nonprofit Organizations
Description: Identify key challenges, and discuss how to apply fundamental marketing principles in order to solve these challenges within a wide range of nonprofit organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5443 Social Issues in Marketing Environment
Description: Social and Legislative considerations as they relate to the Marketplace. Develop an understanding of fundamental social marketing concepts and theories. Enhance your critical thinking and ethical analysis related to marketing practices. Obtain hands-on experience designing a social marketing plan. Strengthen problems solving, communications, and teamwork skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5500 Current Topics in Marketing Analytics
Prerequisites: Admission in any graduate program in business school or consent of instructor.
Description: Current topics in marketing analytics such as web analytics, marketing optimization analytics, high-performance analytics, visual analytics, marketing campaign analytics. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5543 Social Media Strategies
Description: This class will focus on ways to build brand awareness and customer loyalty on a low budget. Topics covered will be social media, blogging, events, email marketing, analytics and more. May not be used for degree credit with MKTG 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5553 International Marketing Strategy
Prerequisites: MKTG 5133.
Description: An analysis of marketing in the global environment. Environmental effects on international marketing management and corporate strategy decisions..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5613 Seminar in Consumer Behavior
Prerequisites: MKTG 5133 or consent of instructor.
Description: Psychological, sociological, and anthropological theories related to consumer decision processes. Special emphasis on current empirical research in consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5623 Marketing Design Essentials
Description: Learn practical tools and tips for putting together promotional campaigns and creating promotional assets for a wide range of businesses. Students will learn how to apply marketing and branding theory with design and get hands-on experience in putting creative promotional designs into print and digital form. This class will cover software such as Photoshop, InDesign and Illustrator. Students will learn content creation tools and will create a promotional kit by the end of the semester. May not be used for degree credit with MKTG 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5633 The External Environment of Business
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Social, ethical, regulatory and political forces as they impact on the organization. Attention to organizational response to these forces through management policies and strategies. Previously offered as BADM 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5733 Introduction to Marketing Analytics
Prerequisites: Admission in MBA program or consent of instructor.
Description: Analytic tools including exploratory and graphical techniques, variable associations and correlations, regression, ANOVA and other related modeling techniques to improve managerial decision making. No degree credit for students with credit in BAN 5733 and MKTG 5983.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5743 Advanced Marketing Analytics
Prerequisites: MKTG 5733 or consent of instructor.
Description: Advanced analytic tools such as neural networks, decision trees, classification and prediction models to generate deeper customer insights and to improve managerial decision making. No degree credit for students with credit in BAN 5743 and MKTG 5963.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5883 Advanced Data Mining Applications
Prerequisites: MKTG 5963 or permission from instructor.
Description: Use advanced data mining tools such as clustering, Self Organizing maps (SOM) and Kohonen Networks, two-stage models, customer attrition and churn models via survival analysis, credit scoring models, etc. In the context of common applications in business management. No degree credit for students with credit in BAN 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5963 Data Mining and Customer Relationship Management Applications
Prerequisites: MKTG 5983 or consent of MBA, MIS/MSIS, MSTM director or assistant director or instructor.
Description: Data mining and turning business data into actionable information. Use of various data mining tools such as neural networks, decision trees, classification and prediction algorithms, in the context of most common applications in business-sales, marketing, and customer relationship management (CRM). Use of state-of-the-art industrial strength data mining software to analyze real-world data and make strategic recommendations for managerial actions. No degree credit for students with credit in BAN 5743 and MKTG 5743.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5973 New Product Development
Prerequisites: Acceptance into the MBA program or consent of the MBA director.
Description: Elements involved in creating and selling a successful new product in a complex environment, including internal organizational and external environmental influences..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5983 Data Base Marketing
Prerequisites: Consent of MBA, MIS/MSIS, MSTM director or assistant director or instructor.
Description: Learn how to manage data, and analyze data using statistical tools such as multiple regression, ANOVA, logistic regression, etc., and frameworks/models commonly used in database marketing such as RFM, LTV, etc. An overview of basic probability concepts and statistical sampling techniques including hypothesis testing (t-tests), contingency tables and Chi-square analysis will be provided. No degree credit for students with credit in BAN 5733 and MKTG 5733.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5993 Digital Business Strategy
Prerequisites: Consent of MBA, or MIS/AIS or MSTM director or instructor.
Description: Businesses employment of digital technologies to craft a superior and unique value proposition for its customers and strategic partners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6100 Advanced Seminar in Marketing
Prerequisites: Consent of instructor and doctoral student standing.
Description: Specialized topics in marketing for doctoral students. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 6323 Seminar in Advanced Consumer Behavior
Prerequisites: MKTG 5133 or consent of the instructor.
Description: An interdisciplinary course examining empirical and theoretical studies of the factors that influence the acquisition, consumption, and disposition of goods, services, and ideas. Analysis of the psychological, sociological, anthropological, demographic, and regulatory forces that impact consumers. Examination of research methodologies employed to conduct empirical studies of consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6413 Advanced Marketing Research
Prerequisites: MKTG 5983 or MKTG 5963 or consent of MBA director or MIS director or instructor.
Description: Introduction to the latest empirical marketing research and advanced analytics techniques such as MANOVA, Confirmatory Factor Analysis, Cluster Analysis, Scaling Techniques, Conjoint Analysis and Structural Equation Models. No degree credit for students with credit in BAN 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6513 Seminar in Marketing Theory
Prerequisites: MKTG 5133 or consent of instructor.
Description: Development of an evaluation of marketing theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6683 Seminar in Marketing Strategy
Prerequisites: MKTG 5133 or consent of instructor.
Description: Examination of a broad range of marketing management topics from a strategic perspective. Understanding of content, theory and research methods involved in the development of strategic marketing knowledge.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6913 Measurement and Experimental Design
Description: An analysis of measurement issues from both psychometric and marketing perspectives. Scale construction and validation. The design, analysis, and evaluation of marketing experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

Mass Communications (MC)

MC 1143 Media in a Diverse Society (DS)
Description: A study of the media and their effect on our culture, with an emphasis on the media's role in racial, gender and sexual orientation issues in the United States. By analyzing the mass media, we learn to interpret the consequences of the stories they tell. An introductory survey course for majors and non-majors. Previously offered as JB 1143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Diversity, Society & Human Behavior

MC 2003 Mass Media Style and Structure
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with grade of "C" or higher, 24 credit hours earned and departmental majors only.
Description: Teaches basic writing skills vital to any career in mass communication. Emphasizes language skills with a focus on the rules of grammar and the meaning of words. Also teaches the basic strategies of information gathering, including how to glean accurate and useful background information from traditional and online sources. Introduces students to the fundamental writing styles and objectives required to convey information in different media. Previously offered as JB 2003, JB 1393, and JM 1123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

MC 2023 Digital Media Essentials
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with a grade of "C" or better, 24 credit hours earned and departmental majors only.
Description: Introduces students to electronic communication with a series of hands-on projects to develop their skills with basic photography, videography, podcasting and Web page development. Compares the various media platforms and teaches students visual grammar. Students create slide-shows and podcasts, learn to edit video, and develop Web pages using content created in class.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MC 2143 Media and Information Literacy (S)
Description: Students will be equipped with the competency, knowledge and skills to navigate, analyze, evaluate, and create media and digital content responsibly. Topics include the historical context, principles, and social implications of media, from traditional print media to contemporary digital/social media as well as critical thinking about the influence and impact of media on society, democracy, and personal decision-making. Issues will include misinformation, disinformation, digital citizenship, media ownership, representation, and bias in media.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Society & Human Behavior

MC 2360 Seminar in Mass Media
Description: A seminar-style course on varying media topics taught by faculty members on a rotating basis.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 3113 Introduction to Media Effects
Description: Mass media's potential to influence audience behavior is a subject that has long fascinated scholars and the general public. Aside from working & sleeping, individuals in the U.S. spend more time consuming media than any other activity. This course introduces media effects, and offers critical analysis methods to better understand the process and effects of the mediated message. A variety of media theories will be examined to understand how media can affect attitudes and behaviors on an individual and societal level. The theories will be used to examine a variety of different types of content, including media violence, portrayals of race and gender, entertainment, politics, strategic communication, and sport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 3173 History of Mass Communication (H)
Description: Growth and development of mass communication systems in America, with emphasis upon the economic, social and political interaction of the media. Previously offered as JB 3173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Human Heritage & Cultures

MC 3360 Current Topics in Mass Communication
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each; and pass proficiency review.
Description: Examination of timely topics and issues in contemporary media. May be repeated with different topics.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 4043 Media Study Abroad (G)
Description: Participation in an international experience sponsored by the School of Media and Strategic Communications. This will typically involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political, and economic issues especially as those areas related to media and communication. May not be used for degree credit with MC 5040 in same semester with same subtitle.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm
General Education and other Course Attributes: International Dimension

MC 4143 Ethics and Issues in Mass Communications
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Students examine classical theories of ethical behavior and their relevancy to professional communicators. Students learn to analyze various moral viewpoints, so they can discern a justifiable system of ethical decision-making. Students apply ethical reasoning and professional codes of conduct to scenarios to determine the most ethical action to take.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4153 International Mass Communication
Description: In today's interconnected world, media shapes our understanding of global events, cultures, and societies. Course examines comparative analysis of media systems, news production, entertainment formats, cultural representations, imbalances in international information flow, debates over media imperialism, and the interplay between local identities and global forces. Current issues will help identify the roles international media play in shaping values, ideology, and power dynamics within varied international contexts. No credit for students with credit in MC 5253. Previously offered as JB 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4163 Mass Communication Law
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Major principles of media law by examining the important court decisions, statutory and regulatory enactments in each area of communication law. Relevant constitutional freedoms and legal issues affecting professional communicators and all participants in a self-governing society. Practice applying the law and precedents to specific situations to determine if potential legal problems exist. No credit for students with credit in MC 5163. Previously offered as JB 4163 and JB 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4360 Advanced Topics in Mass Communications
Prerequisites: MMJ 3263, SC 3353, or SPM 3813 with a grade of "C" or higher; and pass proficiency review.
Description: Independent study and project development to fit the student's field of study. Previously offered as JB 4360. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 4733 Responsibility in Mass Communication
Prerequisites: MC 2003 with a grade of "C" or better; and pass proficiency review.
Description: Interaction between mass media and society with emphasis upon the communicator's ethics and responsibilities. Meets with MC 5733. No credit for students with credit in MC 5733. Previously offered as JB 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4753 Media and Elections
Description: Examination of media's role in the political process with primary emphasis on public affairs, political news, public relations and campaign advertising in traditional and social media spaces. No credit for students with credit in MC 5753. Previously offered as JB 4753 and MMJ 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in the School of Journalism and Broadcasting. Previously offered as JB 4993.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Honors Credit

MC 5000 Thesis
Description: For mass communication graduate students who are candidates for the master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5001 Capstone Project Prep
Prerequisites: MC 5113, MC 5333, and MC 5651 each with a B or better; and instructor permission.
Description: This course prepares mass communication graduate students for the degree completion option of Creative Component. Students will develop a proposal for their creative project, including preparing an introduction and rationale for the project, a review of relevant trade and scholarly literature, a methodology section outlining project execution, a timeline for project completion and an evaluation criteria for the project.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5010 Capstone Creative Project
Prerequisites: "B" or better in MC 5001, 5113, MC 5333, and MC 5651 and instructor permission.
Description: Capstone research project or creative activity for a mass communication graduate student. Offered for variable credit, 1-3 credit hours, maximum of 3 hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5011 Experience Report
Prerequisites: Instructor permission and MC 5020 (6 hours) or MC 5040 (6 hours).
Description: The Experience Report is a non-thesis, degree completion option for the Study Abroad or Practicum graduation candidates.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5020 Advanced Practicum or Internship in Mass Communication
Prerequisites: One semester of graduate coursework and consent of instructor.
Description: Applied training allowing students to relate theoretical principles to situations in professional settings. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5030 Independent Study in Mass Communication
Prerequisites: Consent of instructor.
Description: Independent study, directed readings or project development in mass communications to fit the student's academic and professional interests. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5040 Media International Experience
Prerequisites: Consent of instructor.
Description: Participation in either an international experience sponsored by the School of Media and Strategic Communications (SMSC) or a research or directed reading project in conjunction with a study abroad experience. An SMSC international offering will typically involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political, and economic issues especially as those areas related to media and communication. The project option would be a student-initiated and student-designed with a faculty adviser or mentor input and guidance. May not be used for degree credit with MC 4043 in same semester with same subtitle. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5113 Methods of Research in Mass Communication
Description: Principles and techniques of research; research planning, design and measurement in mass communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5143 Diversity In Sports Media
Description: This course examines sports media content, framing, personnel, and audiences in relation to diverse groups. Primary emphases are placed on race and ethnicity, gender, sex, LGBT, national identity, and disability. Sports media coverage of each group is examined from a historical perspective up through the 21st Century convergence of broadcast, online, and print journalism. Particular focus is placed on diversity among sport media gatekeepers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5163 Mass Communication Law
Prerequisites: MC 2003 and graduate standing.
Description: Major principles of media law by examining the important court decisions, statutory and regulatory enactments in each area of communication law. Relevant constitutional freedoms and legal issues affecting professional communicators and all participants in a self-governing society. Practice applying the law and precedents to specific situations to determine if potential legal problems exist. Meets with MC 4163. No credit for students with credit in MC 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5223 Mass Communication Research Analysis and Interpretation
Prerequisites: MC 5113.
Description: Single- and multi-variate analysis, interpretation and reporting of mass communication research data. Use of computers in research analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5253 International Mass Communication
Description: Examination of the nature and flow of news and information within and among nations, states, and societies from a theoretical vantage point grounded in region-specific realities. The political, economic, social, cultural and historical forces determining media practice in a global environment. No credit for students with credit in MC 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5283 Citizen Branding
Prerequisites: Graduate standing.
Description: The course is focused on promoting citizen engagement and community building in a digital era. It explores consumption of networked political campaigns, corporate and national identity branding, and participation in the social media marketplace. It examines the effect of media on community deliberation. This course will provide the tools to increase meaningful community engagement in ways that will transform our communities into more vibrant and interactive places.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5323 Nation Branding
Prerequisites: Graduate standing.
Description: Nation branding is defined for this course as the strategic act of shaping a country's reputation and country image through the use of branding techniques. This course will explore America's image abroad and attempt to understand the recent rise of anti-Americanism, as well as look at nation branding in other countries. May not be used for degree credit with GS 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5333 Media Theory
Prerequisites: Graduate standing.
Description: Mediating factors that affect interaction of ingredients in the communications process, and how these factors can affect the fidelity of information conveyed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5383 Media Relations
Prerequisites: Graduate standing.
Description: Strategies for dealing with the news media. Students will gain hands-on experience in conducting media news conferences, pitching story ideas and preparing themselves and others for dealing with news media interviews. Meets with SC 4383. No credit for students with credit in SC 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5443 Sports Branding
Prerequisites: Graduate Standing.
Description: Introduction to the multibillion-dollar industry of sports branding and sponsorship from the viewpoint of the team, the brand, and other entities involved. Sports branding creates and delivers brand content to fans to bolster engagement and loyalty towards the generation of revenue. Course covers the history of sports branding, the broader sport and eSports ecosystems, team and individual athlete branding, sponsorship, and the role of globalization and virtual-based Consumer technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5483 Nonprofit Branding
Prerequisites: Graduate Standing.
Description: This course explores the role of strategic communications for nonprofit organizations. It will provide students with an in-depth understanding of how communication theories can be applied to build organizational brand, foster commitment to organization's mission, increase trust, create ambassadors, strengthens impact, and create lasting social change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5520 Specialized Strategic Communications Applications
Prerequisites: One semester of graduate course work and consent of instructor.
Description: Professional strategic communications at an advanced level. Strategic communications study of non-profit, corporate, agency, international and other specialized applications. Course content varies by semester. No credit for students with credit in SC 4520 during the same semester or with the same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5540 Specialized Multimedia Journalism Applications
Prerequisites: Graduate standing.
Description: Professional journalism at an advanced level. Special topics in areas such as announcing, performance; political, business, and investigative reporting; advanced layout and design or audio production; feature, column and editorial writing. Course content varies by semester. Meets with MMJ 4540. No credit for students in MMJ 4540 during the same semester or with the same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5560 Specialized Sports Media Applications
Prerequisites: Graduate standing.
Description: Professional sports media at an advanced level. Special topics in areas such as sports media production, announcing, performance; sports feature, column and editorial writing. Course content varies by semester. Meets with SPM 4560. No credit for students in SPM 4560 during same semester or with same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5603 Integrated Marketing Communication
Prerequisites: Graduate standing. Previous Mass Communication or Marketing coursework.
Description: Advanced exploration of the strategic planning and implementation of Integrated Marketing Communication campaigns. Uses case studies, projects, and industry examples to emphasize the importance of coordinating and combining diverse traditional and digital marketing tools and channels (advertising, public relations, direct marketing, and sales promotion) to deliver clear, consistent, high-impact messages that resonate with target audiences. Course also delves into contemporary theories, models, and tools that inform decision-making in promotional communication strategies. No credit for SC 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5613 Storytellers Studio
Prerequisites: Graduate standing.
Description: This is a graduate seminar designed to provide an understanding of the theory and practice of mass media. Through readings, lectures, multi-media presentations and guests who are industry experts, we explore the main media institutions and how they create, exhibit, and disseminate their products. The course also explores how diverse audiences and users select, use and react to media content. Special attention is paid to the audience/medium relationship, improving media literacy and a broad understanding of media ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5651 Introduction to Graduate Study in Mass Communications
Prerequisites: Graduate standing.
Description: Orientation to skills necessary for successful completion of graduate work. Training in library and archival research, academic writing and preparation of research reports, familiarization with theoretical concepts and issues associated with mass communication. Required of all mass communication MS candidates, and prerequisite to MS candidates enrolling in mass communication seminars. Previously offered as MC 5653.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5733 Responsibility in Mass Communication
Prerequisites: Graduate standing.
Description: Interaction between mass media and society with emphasis upon the communicator's ethics and responsibilities. Meets with MC 4733. No credit for students with credit in MC 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5753 Media And Elections
Prerequisites: Graduate standing.
Description: Examination of media's role in the political process with primary emphasis on public affairs, political news, public relations and campaign advertising in traditional and social media spaces. May not be used for degree credit with MMJ 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5770 Seminar in Communication Media
Prerequisites: Graduate standing.
Description: International communication, media history, legal research, new technology, women and the media, television and children, industrial television, and communication research. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5773 Censorship
Prerequisites: Graduate standing.
Description: Critical examination of historical and contemporary occurrences of censorship from legal, philosophical, political, religious and sociological perspectives. The course will explore the definition of censorship, the common elements found in all forms of censorship, the rationalizations and justifications for censorship, and the consequences and unintended results of censorship. No credit for students with credit in MMJ 2773 or MMJ 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5843 Sport Fanship
Prerequisites: Graduate Standing.
Description: An in-depth examination of modern sport fans and their relationship with the sports media industry. The class will define sport fanship in today's context, cover the many causes of fanship, and explore its social and psychological consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5883 Media Management
Prerequisites: Graduate Standing.
Description: The focus of this course is on an integrated approach to the management in an organization, particularly grounded in organizational theory. Management concerns in mass communication practice, including public relations, brand management, digital production, multimedia journalism and sports media. Different emphases offered according to student demand or need.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5933 Theories of Persuasion
Prerequisites: Graduate standing.
Description: In order to extend our understanding of Strategic Communication, it is important to study the large body of scientific research dealing with persuasion and persuasive communication. This is not a course on how to be a better persuader, but instead a study of the theories of persuasion. However by exploring the academic literature on persuasion, many strategies can be learned and used to not only make us better communicators, but also to help us resist persuasive attempts that we may encounter as citizens and consumers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5953 Strategic Health Communications Campaigns
Prerequisites: Graduate standing.
Description: The course will focus on theoretical approaches to health message design and the most effective and strategic use of traditional and new media outlets. Students also will review and discuss examples of past and current health communication campaigns in the United States and around the world. Integrating theory and practice, students will apply these concepts to design strategic communication campaigns for area health agencies and organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

Master of Athletic Training (MAT)

MAT 5000 Thesis Research & Seminar
Prerequisites: Admission to the Master of Athletic Training.
Description: Research, thesis, and seminar requirement culminating with a Master of Athletic Training degree. Offered for valuable credit, 1-6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5103 Emergency Management in Athletic Healthcare
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Development of essential skills and competencies necessary to manage emergency situations. Previously offered as HHP 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5122 Clinical Anatomy for Athletic Training
Prerequisites: Admission in the Master of Athletic Training program.
Description: Gross structures of the human body using a regional approach including topographic and functional anatomy, and clinical correlations as appropriate for athletic trainers and allied healthcare professionals. Descriptive basis for understanding human structure and function encountered in professional practice.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 3 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5183 Injury Prevention and Management
Prerequisites: Admission into the Early Level Masters degree Athletic Training Education Program.
Description: Introduction to injury etiology, appropriate injury prevention and the administration of subsequent medical care. Based in didactic theory and practical experience regarding many aspects of Athletic Healthcare. Previously offered as HHP 5184.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5202 Athletic Training Practicum I
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Supervised clinical experiences in athletic training emphasizing concepts in injury prevention, acute care injury management. Previously offered as HHP 5201.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5223 Therapeutic Modalities
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program, and HHP 5122.
Description: Discussion and application of common electronic and physiologic devices used in the treatment of acute and chronic injuries to the musculoskeletal systems. This course is designed to introduce the student to various therapeutic agents used in the treatment of injury through problem based learning. Previously offered as HHP 5222.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: MAT Course Lab fee of $125 applies.

MAT 5233 Clinical Evaluation and Diagnosis of the Lower Extremity
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Contemporary knowledge and skills related to evidence based practice in the recognition, diagnosis, and appropriate medical referral of injuries to the hip, pelvis, and lower extremity. Previously offered as HHP 5234.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: MAT Course Lab fee of $125 applies.

MAT 5243 Therapeutic Exercise of the Lower Extremity
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Scientific methods used in therapeutic exercise and rehabilitation of lower extremity injuries. Investigation of mechanisms of injury, anatomical structures involved and methodological approach in designing rehabilitative programs. Previously offered as HHP 5244.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: MAT Course Lab fee of $125 applies.

MAT 5302 Athletic Training Practicum II
Prerequisites: MAT 5202, Admission into the Master of Athletic Training Program.
Description: Interactive and supervised clinical experiences in athletic training emphasizing diagnosis, treatment and rehabilitation of injuries to the lower extremity. Previously offered as HHP 5301.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5315 Clinical Evaluation, Diagnosis, Pathology and Pharmacology of Non-Orthopedic Medical Conditions
Prerequisites: Admission to the Master of Athletic Training Program.
Description: To present the student with specific pathologies, medical conditions and possible avenues for treatment of nonorthopedic conditions. This will include the pathology and pharmacology of these pathologies. Based in medical theory and practical outcomes, this course will prepare students to evaluate, treat and refer to proper medical professionals. Previously offered as MAT 5313 and HHP 5314.
Credit hours: 5
Contact hours: Lecture: 4 Lab: 2 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5333 Clinical Evaluation and Diagnosis of the Upper Extremity
Prerequisites: HHP 5234.
Description: Advanced knowledge and skills related to evidence based practice in the recognition, diagnosis and appropriate medical referral of injuries to the upper extremities. Previously offered as HHP 5334.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5343 Therapeutic Exercise of the Upper Extremity
Prerequisites: Admission in the Master of Athletic Training Program.
Description: Evidence based practices used in therapeutic exercise and rehabilitation of upper extremity injuries. Investigation of mechanisms of injury, anatomical structures involved and methodological approach in designing rehabilitative programs. Previously offered as HHP 5344.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

MAT 5402 Athletic Training Practicum III
Prerequisites: HHP 5301 Athletic Training Practicum II.
Description: Interactive and supervised clinical experiences in athletic training emphasizing diagnosis, treatment and rehabilitation of injuries to the upper extremity. Previously offered as HHP 5401.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5412 Radiography Evaluation and Assessment
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: To introduce the student to the fundamental principles, equipment and common methods and procedures of radiography. Previously offered as HHP 5412.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5443 Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine
Prerequisites: Admission to the Master of Athletic Training Program.
Description: Advanced knowledge and skills related to the recognition, diagnosis and appropriate medical referral of injuries to the lumbar, thoracic and cervical spine and head. Scientific methods used in therapeutic exercise and rehabilitation of head and spine injuries. Previously offered as HHP 5444.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: MAT Course Lab fee of $125 per credit hour applies.

MAT 5481 Advanced Athletic Training Techniques
Prerequisites: Admission to the Master of Athletic Training Program.
Description: To present the student with advanced manual therapy and athletic training hands-on techniques. Previously offered as MAT 5483 and HHP 5483.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5502 Athletic Training Practicum IV
Prerequisites: MAT 5402, Admission in the Master of Athletic Training Program.
Description: Interactive and supervised clinical experiences in athletic training emphasizing diagnosis, treatment and rehabilitation of injuries to the head and spine and general medical conditions. Previously offered as HHP 5501.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5553 Research Evaluation and Application
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Discuss the importance of conducting research in athletic training and the healthcare professions. Emphasis is placed on research design, ethics, collection of data, and the dissemination of results. Previously offered as HHP 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5573 Athletic Healthcare Administration
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: The administration and organization of athletic healthcare programs including planning and implementation, certification procedures, code of professional practice, safety standards and resource management. Previously offered as HHP 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5583 Psychosocial Strategies in Athletic Healthcare
Prerequisites: Admission into the Entry Level Masters degree Athletic Training Education Program.
Description: Development of psychosocial strategies and referral competencies set by the National Athletic Trainers Association Board of Certification. Previously offered as HHP 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5602 Athletic Training Practicum V
Prerequisites: MAT 5502, Admission in the Master of Athletic Training Program.
Description: Interactive and supervised clinical experiences in athletic training emphasizing evidence based practices and administrative responsibilities. Previously offered as HHP 5601.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

MAT 5712 Clinical Diagnosis and Therapeutic Interventions for the Lower Extremity
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for injuries and pathologies of the lower extremity. This will include orthopedic evaluation and therapeutic interventions foundations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5722 Clinical Diagnosis and Therapeutic Interventions for the Upper Extremity
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for injuries and pathologies of the upper extremity. This will include orthopedic evaluation and therapeutic interventions foundations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5732 Clinical Diagnosis and Therapeutic Interventions for the Head and Spine
Prerequisites: Admittance Into the Advanced Sports Medicine Concepts Graduate Certificate Program.
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for injuries and pathologies of the head and spine. This will include orthopedic evaluation and therapeutic Interventions foundations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5742 Clinical Diagnosis and Therapeutic Interventions for Non-Orthopedic Injuries
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for non-orthopedic injuries and pathologies. This will include evaluation and therapeutic interventions foundations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5752 Emergency Care in Sports Medicine
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for emergencies that occur in the sports medicine setting and refine current clinicians' emergency management skills within the context of sports medicine.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

MAT 5762 Mental Health in Sports Medicine
Description: This course will provide the learner with advanced knowledge, supporting evidence, and contemporary expertise for mental health conditions that occur in the sports medicine setting. It will also refine current clinicians' mental health management referral and intervention skills within the context of sports medicine,
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

Master of Business Admin (MBA)

MBA 5010 Independent Study
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Investigation of advanced research topics or directed study under the supervision of a faculty member. Consent of MBA Graduate Studies Committee required. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MBA 5100 Professional Development
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Career and professional development of MBA students. A blend of guest speakers, projects, and exercises used to better prepare students for advanced business careers. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MBA 5192 Managing Operations and Decision Processes
Prerequisites: MBA 5172.
Description: Study of concepts of management of production and service operations. Contemporary manufacturing technologies and application of quantitative techniques. Development of analytical skills required to conduct detailed investigations of real-world systems.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

MBA 5261 Legal Issues in Business
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Analysis of the basic concepts of public and private law related to business decisions. Overview of the laws affecting private business relationships including employment law, agency laws, and various forms of business organizations.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

MBA 5300 Current Business Topics
Prerequisites: Admission to the MBA program or consent of the director.
Description: Examination of selected topics representing the most current academic and business concepts. Previously offered as MBA 5313. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MBA 5310 Integrative Decision-Making II: Crossing Organizational Boundaries
Prerequisites: Consent of MBA director and completion of minimum of 24 MBA credit hours.
Description: Identification and analysis of environmental forces affecting an organization's ability to compete and survive. Interaction among all corporate functional units. Development of a comprehensive, integrated plan of action for the firm. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Lecture: 3-9 Contact: 3-9
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Business Admin

MBA 5400 Business Practicum
Prerequisites: Consent of MBA director and completion of 18 MBA credit hours.
Description: Application of knowledge and skills developed in MBA functional courses in an organizational environment. Integration of functional concepts, allowing students to experience the adaptation of concepts to fit organizational reality, and assisting students in understanding ways in which their academic training can help organizations. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MBA 5500 Interdisciplinary Inquiry in Business Administration
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Investigation of various business problems using an interdisciplinary approach. Courses team taught to ensure problems viewed from varying functional perspectives. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MBA 5990 MBA Applied Business Report
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Independent investigation of a business problem under the direction of a supervising professor. Previously offered as BADM 5990. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Business Admin

Master of Public Health (MPH)

MPH 5000 Master's Thesis
Description: Independent research in public health for MPH degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

MPH 5010 Independent Study in Public Health
Description: Limited opportunities to enroll for coursework on an independent study basis are available. Independent study opportunities in Public Health will be specific to the interest of the faculty member and the student, and not currently offered through other required or elective courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

MPH 5023 Introduction to One Health
Description: Students will be exposed to relevant areas of the One Health paradigm with special emphasis on public health, animal health, and global sustainability issues. Global health burden, determinants of health, strategies towards promoting health and applications towards a sustainable approach for the health of humans, animals and the environment will be covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5030 Master of Public Health Practicum
Description: Supervised practicum experience in public health for MPH degree. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Graduate College

MPH 5103 Grant Writing in Public Health
Description: This course will present principles and skills needed to write competitive public health program and research grants, prepare budgets, and understanding the peer review process. Students will write an HRSA, CDC, SAMSHA, or NIH type grant proposal.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5133 Environmental Health
Description: Examination of health issues, etiology of disease, and control and prevention of major environmental health problems in industrialized and developing countries. Same course as HLTH 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5203 Evidence-Based Approaches to Public Health
Description: The purpose of this class is to introduce students to concepts and methods of quantitative, biostatistical analysis and qualitative analysis. Topics for the class include selecting appropriate data collection methods, data analysis including use of statistical packages. This course will cover the qualitative methods and analysis; quantitative methods include descriptive statistics, standard probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, power and sample size estimation, parametric and non-parametric methods for analyzing continuous or categorical data, and simple linear regression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5213 Biostatistical Literacy
Description: This course focuses on biostatistical literacy, or the ability to read and comprehend biostatistics in public health literature. This course will not include calculation of statistics and will offer no formal training in statistical software or programming, but will include fundamental concepts of study design, descriptive statistics, hypothesis testing, confidence intervals, odds rations, relative risks, adjusted models in multiple linear, logistic, and proportional hazards regression, and survival analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5221 Epidemiology and Evidence-Based Medicine
Prerequisites: Graduate standing and consent of instructor.
Description: Principles and uses of evidence-based practice of veterinary medicine; comprehension and utilization of scientific research; interpretation of basic concepts of observational study of disease. Same course as CBSC 5221 and VMED 7221.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5323 General Epidemiology
Description: Examination of epidemiological theory and its methodological application to public health. Same course as HLTH 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5343 Clinical Epidemiology
Description: This course covers the most prevalent chronic diseases and their risk factors. Chronic diseases drive up US healthcare costs, making our care among the most expensive in the developed world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5363 Social Epidemiology
Description: Social epidemiology includes considerations for how social interactions affect human health. Social epidemiologists are concerned about investigating the social determinants are concerned about investigating the social determinants of health and consider population-level rather than individual-level factors and outcomes. Social processes including social networks, social support, social capital, social cohesion, and other ways of understanding ecological factors will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5413 Food Safety and Public Health
Prerequisites: Graduate standing and consent of instructor.
Description: Introduction to public health and diseases transmissible to humans. Potential human health hazards in foods of animal origin and principles of safe food production, processing, handling and inspection, including pathogen reduction and HACCP regulations. Same course as VBSC 5413 and VMED 7413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5433 Public Mental Health
Description: The purpose of this class is to introduce students to the social, economic, and public health aspects of mental illness. Students will be introduced to the epidemiology of different mental disorders. They will then be introduced to the different mental disorders from a population level perspective. Students will be introduced to special topics in mental health including legal issues, suicide, and violence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5443 Aspects of Addiction
Description: The purpose of this class is to introduce students to the social aspects of the disease of addiction. Students will be introduced to the different substances of abuse. They will examine social, economic and public health consequences of addiction. They will further be introduced to treatment models and resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5453 Cultural Issues in Health
Description: Examination of ways in which culture affects health and health care including perceptions of health, diseases, treatments, and the values associated with these factors. The need for cultural sensitivity in health care is emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5463 Health Media & Communication
Description: This course examines how public health environments are understood and experienced, popular tactics for communicating and contesting public health information, the utilization of the media and communication strategies to combat diseases and promote health, and the impact of media representation and popular culture on understandings of disease and health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5513 Fundamentals of Health Budgeting and Financial Management
Description: This course will offer a current approach to the fundamentals of budgeting and financial management, with an emphasis on non-profit and health care organizations, in particularly the community health sector.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5523 Cannabis through a Public Health Lens
Description: In this course, students will learn the history, research, policy, legalization, economic issues, current evidence-based health effects, and social consequences of cannabis use through a public health lens.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5533 Aging and Public Health
Description: This course examines the biological, psychological, and social aspects of aging; investigates public health issues created by population aging; and explores public health responses to effectively serve older populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5543 Leadership, Policy, and Ethics in Public Health
Description: This course investigates major theories, models and competences of leadership, current public health issues and challenges, ethical issues, and approaches to enhance health outcomes at the individual, team, community, and policy level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5653 Foundations of Public Health Education and Promotion
Description: Exploration of key concepts, philosophies, ethical principles, historical events, theories/models, and responsibilities and competencies of health education and promotion of professionals. Same course as HLTH 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5683 Health Behavior Theory and Practice for Public Health
Description: Theories and concepts of health behavior change and exploration of the application of theories to public health programs. Same course as HLTH 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5973 Designing Public Health Programs
Description: Application of program design principles, including needs assessment, theoretical application, program planning and marketing. Same course as HLTH 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5983 Implementation and Evaluation of Public Health Programs
Description: Application of program implementation and evaluation, including evaluation design. Same course as HLTH 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MPH 5990 Emerging Issues in Public Health
Description: Graduate level analysis of emerging issues and methodologies in public health not covered in other departmental offerings. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

Materials Sci & Engineering (MSE)

MSE 5000 Master's Thesis
Prerequisites: Graduate standing and permission of instructor.
Description: Students will be performing thesis research under the guidance of a thesis advisor. This will involve performing literature search, writing proposal for the research and conducting research in the laboratories. At the end of the course students will present the findings of research to the committee and prepare a thesis for approval by the thesis committee. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MSE 5010 Materials Science and Engineering Seminar for Masters Students
Prerequisites: Graduate standing or consent of instructor.
Description: Advanced Research and Development Topics. Maximum 3 credit hours. Graded on pass/fail basis.
Credit hours: 0
Contact hours: Contact: 0 Other: 0
Levels: Graduate
Schedule types: Discussion
Department/School: Mater Mero Manuf Engineering

MSE 5013 Advanced Thermodynamics of Materials
Prerequisites: Graduate standing and permission of instructor.
Description: Thermodynamics of materials is important for materials synthesis, stability and performance. The course will cover basic laws of thermodynamics, solution theory, phase equilibrium diagrams and thermodynamics of electrochemical systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5022 Masters of Engineering Capstone Project
Description: Students will conduct independent literature review or research as guided by the graduate advisory committee. The capstone project will be completed in conjunction with an approved graduate course in Materials Science and Engineering. At the end of the course students will prepare a final report for approval by the graduate program committee.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MSE 5023 Diffusion and Kinetics
Prerequisites: Graduate standing and permission of instructor.
Description: Diffusion and kinetics are important for materials processing, stability, microstructure evolution and performance. The course will cover basic concepts underlying diffusion and kinetics as they relate to materials behavior. Topics on diffusion, nucleation and growth, spinodal decomposition, reactions involving solid with solids, gases and liquids, and phase transformation will be covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5030 Independent Study in Materials Science and Engineering
Prerequisites: Graduate standing and permission of instructor.
Description: This course can be used by individual faculty in specific areas related to a student's graduate study. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5033 Composite Materials
Prerequisites: Graduate standing and permission of instructor.
Description: Composites are important for advancing performance and reliability of existing and new products for aerospace, electronics, and medical systems. This course is to introduce fundamental concepts for the design, fabrication and mechanical property evaluation of composites. This includes methods of fabricating fibers, matrices and composites, toughening mechanisms in composites, mechanical properties, and role of interfaces. The focus will be for composites useful at high temperatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5043 Advanced Materials Characterization
Prerequisites: Graduate standing and permission of instructor.
Description: Advances in materials require availability, training, and proficiency in advanced instrumentation to characterize materials at length scales from macro- to nanometer-scale. This course is to introduce fundamental concepts forming the basis of different equipments, their operation and capability for developing advanced materials. This includes instruments such as SES, TEM, x-ray diffraction, FTIR, AFM, and Nanoindentation. The lectures will be complemented with hands-on experience to students in labs housing these equipments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5053 Smart Materials
Prerequisites: Graduate standing and permission of instructor.
Description: Advances in new technologies rely on the availability of "smart" materials that adapt to environment. Examples include sun-sensor glasses that become dark in sunlight and clear-out when indoors, and shape-memory materials used as stents in human body. In this course, the definition of a smart material and to understand principles of using electrical and other functional properties of materials to create smart systems is covered. Students are also taught to search literature on a suitable topic and work as a group to write a term paper and make a presentation to the class.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5063 Biomedical Materials
Prerequisites: Graduate standing and permission of instructor.
Description: The course will discuss about structure, composition, properties, and performance of materials with applications in medical and health science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5073 Tissue Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Tissue engineering (TE) and the material strategy for different tissue constructs in bone TE, liver TE, neural TE, intestine TE, etc. will be discussed in this course. Same course as CHE 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5083 Advanced Ceramics Processing
Prerequisites: ENSC 2213 and ENSC 3233 and MATH 2153 or permission of instructor.
Description: An introduction to processing techniques to transform ceramics from raw materials to finished products. This includes powder synthesis and beneficiation, colloidal processing, forming techniques, sintering and finishing operations and an introduction to chemical processing routes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5093 Fundamentals of Materials Science
Prerequisites: Instructor approval.
Description: MSE 5093 is a first-year graduate course that covers basic concepts in materials science. The course is designed for both materials science and engineering graduates and graduates with other engineering or science backgrounds (physics, chemistry, mechanical engineering, chemical engineering, electrical engineering, etc.).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5103 Electrical and Optical Properties of Ceramics
Prerequisites: Graduate standing and permission of instructor.
Description: Inorganic ceramic materials are useful in many applications because of their electrical, optical, dielectric, and magnetic properties. These are important for advancing performance and reliability of existing and new products for aerospace, electronics and medical systems. This course is to introduce fundamental concepts for the understanding of principles of electrical and optical behaviors of ceramic materials including atomic structure, conduction mechanisms, processing and electrical-optical properties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5113 Diffraction in Materials
Prerequisites: Graduate standing and consent of instructor.
Description: Introduction to crystallography and diffraction with an emphasis on X-ray diffraction, some exposure to Neutron diffraction, radiography, and tomography. Applications will focus on mechanical properties measurements. New methods will be surveyed with an emphasis on current research. Same course as MAE 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5123 Advanced Composites Manufacturing: Materials, Methods and Applications
Prerequisites: Graduate standing and permission of instructor.
Description: Covers important topics such as basic concepts and definitions of composite materials, fabrication, structure, properties, and applications of fibrous materials, structure and properties of polymer matrix, metal matrix and ceramic matrix materials, constituent materials, fabrication and repair methods, properties and applications of polymer matrix composites, metal matrix composites, ceramic matrix composites and carbon/carbon composites and markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5133 Solid Oxide Fuel Cells
Prerequisites: Graduate standing and permission of instructor.
Description: The objective of this course is to introduce fundamental concepts for energy production using solid oxide fuel cells. The course will include fundamentals of solid oxide fuel cells. Efficiency based on thermodynamics will be described. In addition, roles of important materials as electrolyte for oxygen transport, anode and cathodes as electronic conductors, and high temperature seals required for solid oxide fuel cells will be covered. The role of fuel cells in the current and future energy systems will also be described.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5143 Batteries and Supercapacitors for Energy Storage
Prerequisites: Graduate standing and permission of instructor.
Description: The objective of this course is to introduce fundamental concepts for energy storage using batteries and supercapacitors. The course will include fundamentals of electrochemical systems/batteries and supercapacitors. Efficiency of storage based on thermodynamics will be described. In addition, role of important materials required in selected battery systems and capacitors will be included. The role of batteries and supercapacitors in the current and future energy storage devices will be described.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5153 Crystal Physics and Materials Properties
Prerequisites: Graduate standing or consent of instructor.
Description: This course is about crystal physics and crystal chemistry, and their applications to engineering problems. It is designed as an introduction to the relationships between symmetry and the directional physical properties of crystals. Emphasis will be on the fundamental understanding of symmetry arguments as criteria in the material selection process for technological applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5163 Nondestructive Evaluation of Materials
Prerequisites: Instructor Approval.
Description: MSE 5163 covers fundamentals of common methods for Nondestructive Evaluation (NDE) of materials, their application and advantages/limitations for engineering inspections. NDE techniques involving mechanical, optical, thermal and electronmagnetic phenomena are covered and include radiographs, ultrasonics, eddy currents, penetrants, magnetic flux, and visual methods. The course is suitable for students in materials and other engineering majors (mechanical/chemical/industrial/civil/electrical).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5173 Organic Electronic Materials and Devices
Prerequisites: Graduate standing and permission of instructor.
Description: This course will serve as an introduction to organic materials with applications to active electronic and optoelectronic devices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5174 Fundamentals of Photovoltaics
Prerequisites: Graduate standing and permission of instructor.
Description: This course will serve as in introduction to photovoltaic materials and devices. This course will cover commercial and emerging photovoltaic technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5193 Advanced Materials Processing
Prerequisites: Instructor Approval.
Description: MSE 5193 is a first-year graduate course that covers basic concepts in materials processing. The course is designed for both materials engineering graduates and graduates with other engineering or science backgrounds (physics, chemistry, mechanical engineering, chemical engineering, industrial engineering, civil engineering, electrical engineering, etc.).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5200 Applied Innovation I
Prerequisites: Graduate standing or consent of graduate program coordinator.
Description: Theory and practice of commercialization of new technologies, business plan development and formation of project teams to commercialize technologies and new products. Same course as EEE 5200.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5223 Additive Manufacturing: Materials, Methods and Applications
Prerequisites: Graduate standing or consent of instructor.
Description: Theory and practice of additive manufacturing, materials and their applications in various fields. Discuss their applications in product development, data visualization, rapid prototyping, and specialized manufacturing, with special emphasis on direct digital manufacturing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5273 Recycling and Sustainability for a Circular Economy
Description: An experiential graduate level course about sustainable materials development for recycling materials such as composites, carpet, construction and demolition waste, tires, E-waste, precious platinum group metals from catalytic converters, and polymers such as PET, LDPE, HDPE, and PP. This fits with OSU's efforts in recycling carpet and PET based materials. The students will understand how to conduct LCA and cradle to cradle assessment of the products being recycled.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5553 Fatigue and Fracture
Prerequisites: MAE 4333 or consent of instructor.
Description: The course provides an introduction to the mechanics of fracture of brittle and ductile materials and covers the basics of both linear-elastic fracture mechanics (LEFM) and elastic-plastic fracture mechanics (EPFM). Crack initiation and propagation is studied under quasi-static, dynamic, and cyclic loading conditions. Models are presented for time dependent fracture including creep and fatigue crack growth. Methods to experimentally determine fracture properties, based on relevant ASTM standards, are introduced. Same course as MAE 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5583 Corrosion Engineering
Prerequisites: ENSC 3313 or equivalent.
Description: Modern theory of corrosion and its applications in preventing or controlling corrosion damage economically and safely in service. Same course as MAE 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5683 Thermodynamics and Thermostatistics of Materials
Prerequisites: ENSC 3313 or equivalent.
Description: Notions of energy, entropy, equilibrium, macrostates, and microstates and their relation to material processes and properties. Deriving material properties from equations of state: Maxwell relations. Statistical thermodynamics: predicting material properties from microstates. Partition function. Phase transformations. Thermodynamics of surfaces and defects. Electrochemistry. Same course as MAE 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 5693 Phase Transformations in Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Principles of phase transformations in material. Structure of materials, phase diagrams, diffusion, solidification, and diffusional and diffusionless transformations will be covered. Recent developments in materials research relevant to phase transformations. Same course as MAE 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MSE 6000 Doctoral Dissertation
Prerequisites: Graduate standing and permission of instructor.
Description: Students will be performing dissertation research under the guidance of the student's doctoral dissertation advisor. This will involve performing literature search, writing proposal for the research, and conducting research in the laboratories. At the end of the course, students will present the findings of the research to the committee and prepare a dissertation for approval by the dissertation committee. Offered for variable credit, 1-9 credit hours, maximum of 60 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MSE 6010 Materials Science and Engineering Seminar for PhD Students
Prerequisites: Graduate standing and consent of graduate program coordinator.
Description: This seminar explores advances in materials and processing across length scales from macro to nanometer. Students will interact with experts, peers, and guest speakers from industry and academia, while presenting their own work for feedback. Topics include research projects and structure-property co-relationships of advanced materials. Designed to build research skills and form the basis of future ideas and concepts. Maximum of three credit hours. Graded on pass/fail basis.
Credit hours: 0
Contact hours: Contact: 0 Other: 0
Levels: Graduate
Schedule types: Discussion
Department/School: Mater Mero Manuf Engineering

Mathematics (MATH)

MATH 1483 Mathematical Functions and Their Uses (Q)
Prerequisites: An acceptable placement score - see placement.okstate.edu.
Description: Analysis of functions and their graphs from the viewpoint of rates of change. Linear, exponential, logarithmic and other functions. Applications to the natural sciences, agriculture, business and the social sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1493 Applications of Modern Mathematics (Q)
Prerequisites: An acceptable placement score (see placement.okstate.edu).
Description: Introduction to contemporary applications of discrete mathematics. Topics from management science, statistics, coding and information theory, social choice and decision making, geometry and growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1513 College Algebra (Q)
Prerequisites: An acceptable placement score (see placement.okstate.edu). Two years of high school algebra recommended.
Description: Quadratic equations, functions and graphs, inequalities, systems of equations, exponential and logarithmic functions, theory of equations, sequences, permutations and combinations. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1583 Applied Geometry and Trigonometry (Q)
Prerequisites: A grade of "C" or better in one of MATH 1483 or MATH 1513, or an acceptable placement score (see placement.okstate.edu).
Description: Geometry, trigonometry, and their applications to technology and design. Not intended for calculus-bound students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1613 Trigonometry (Q)
Prerequisites: MATH 1513 with grade of "C" or better or an acceptable placement score (see placement.okstate.edu).
Description: Trigonometric functions, solution of triangles and applications to physical sciences. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1715 Precalculus (Q)
Prerequisites: An acceptable placement score (see http://placement.okstate.edu). One year of high school geometry and two years of high school algebra recommended.
Description: Includes an integrated treatment of topics from College Algebra and Trigonometry. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours. Satisfies the six hour general education Analytical and Quantitative Thought requirement.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1813 Preparation for Calculus (Q)
Prerequisites: MATH 1513 with grade of “C” or better or an acceptable placement score (see placement.okstate.edu).
Description: A conceptual approach to the algebra and trigonometry needed for calculus, including polynomial, rational, exponential, logarithmic, and trigonometric functions, inverse and composite functions, rates of change and the limiting process. Combined credit towards a degree for MATH 1513, MATH 1613, and MATH 1813 limited to six hours. May not be used for degree credit with MATH 1715.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 2103 Business Calculus (Q)
Prerequisites: A grade of "C" or better in one of MATH 1483 or MATH 1513 or MATH 1715 or MATH 1813, or an acceptable placement score (see http://placement.okstate.edu).
Description: An introduction to calculus in the context of applications to business. Previously offered as MATH 2713.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2123 Calculus for Technology Programs I (Q)
Prerequisites: MATH 1613 with a grade of "C" or better, or MATH 1715 with a grade of "C" or better, or MATH 1813 with a grade of "C" or better, or an acceptable placement score (see placement.okstate.edu).
Description: First semester of a terminal sequence in calculus for students in the School of Technology. Functions and graphs, differentiation and integration with applications. Previously offered as MATH 2373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2133 Calculus for Technology Programs II (Q)
Prerequisites: A grade of "C" or better in MATH 2123 or in MATH 2144.
Description: Second semester of a terminal sequence in calculus for students in the School of Technology. Calculus of trigonometric, exponential and logarithmic functions and applications to physical problems. Previously offered as MATH 2383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2144 Calculus I (Q)
Prerequisites: MATH 1613 with grade of "C" or better, or MATH 1715 with grade of "C" or better, or MATH 1813 with grade of "C" or better, or an acceptable placement score (see placement.okstate.edu).
Description: An introduction to derivatives, integrals and their applications. Previously offered as MATH 2145 and MATH 2265.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2153 Calculus II (Q)
Prerequisites: MATH 2144 with grade of "C" or better.
Description: A continuation of MATH 2144, including techniques of integration, series and their applications, parametric equations, and polar coordinates. Previously offered as MATH 2155, MATH 2163, and MATH 2365.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2163 Calculus III
Prerequisites: MATH 2153 with grade of "C" or better.
Description: A continuation of MATH 2153, including differential and integral calculus of functions of several variables and an introduction to vector analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 2233 Differential Equations
Prerequisites: MATH 2153 with grade of "C" or better.
Description: Methods of solution of ordinary differential equations with applications. First order equations, linear equations of higher order, series solutions and Laplace transforms. Combined credit toward a degree for MATH 2233, MATH 3013, and MATH 3263 limited to six hours. Previously offered as MATH 2613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 2890 Honors Experience in Math
Prerequisites: Honors College participation and concurrent enrollment in a designated MATH course.
Description: A supplemental Honors experience in mathematics to partner concurrently with designated MATH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 2900 Undergraduate Research
Prerequisites: Consent of Instructor.
Description: A guided program of independent reading and research under the direction of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 2910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit. 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 3013 Linear Algebra (Q)
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Algebra and geometry of finite-dimensional linear spaces, linear transformations, algebra of matrices, eigenvalues and eigenvectors. Combined credit toward a degree for MATH 2233, MATH 3013 and MATH 3263 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 3263 Linear Algebra and Differential Equations
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: An integrated treatment of linear algebra and differential equations. Combined credit toward a degree for MATH 2233, MATH 3013, and MATH 3263 limited to six hours. Previously offered as MATH 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3303 Advanced Perspectives on Secondary Mathematics
Prerequisites: MATH 2153 with grade of "C" or better.
Description: A conceptually rigorous treatment of topics in secondary mathematics including functions, rates of change, and modeling with linear, exponential, logarithmic, and trigonometric functions. Emphasis on articulating ideas and developing pre-service teachers' ability to teach for understanding. No credit towards the MATH minor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3403 Geometric Structures for Early Childhood and Elementary Teachers
Prerequisites: MATH 1483 or MATH 1493 or MATH 1513.
Description: Foundations of geometry for prospective early childhood and elementary teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing elementary students' thinking. Topics include measurement, area, volume, transformations, scaling and similarity, angles, circles, quadrilaterals, and triangles. MATH 3403 and MATH 3603 prepare students for SMED 3153 and SMED 4153 or HDFS 3223. Previously offered as MATH 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3583 Introduction to Mathematical Modeling
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: A project-based introduction to mathematical modeling: model building, computation and simulation, model verification, interpretation, and refinement. Students will create and analyze mathematical models to solve problems in scientific or business contexts. Techniques may include discrete or continuous models, dynamical systems, differential equations, empirical modeling, and other approaches. Written reports and oral presentations required. May not be used for degree credit with MATH 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3603 Mathematical Structures for Early Childhood and Elementary Teachers
Prerequisites: MATH 1483 or MATH 1493 or MATH 1513.
Description: Foundations of number concepts for prospective early childhood and elementary teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing elementary students' thinking. Topics include the decimal number system, fractions, negative numbers, properties of arithmetic, addition, subtraction, multiplication, and division. MATH 3603 and MATH 3403 prepare students for SMED 3153 and SMED 4153 or HDFS 3223. Previously offered as MATH 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3613 Introduction to Abstract Algebra
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: An introduction to mathematical reasoning including logical structure of statements, quantifiers, basic set theory and techniques of proof. Elementary number theory including divisors and prime factorization, the Euclidean algorithm, and modular arithmetic. Introduction to rings, integral domains, fields, and polynomial rings. Previously offered as MATH 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3703 Mathematical Structures in the Middle Grades
Prerequisites: MATH 3603 and MATH 3403 with grades of "C" or better.
Description: Foundations of mathematical concepts for prospective middle school teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing students' thinking. Topics include middle-grade number concepts such as ratio and proportion, negative numbers, exponents, factors and multiples, and prime numbers, and algebra concepts such as expressions and equations. Additional topics selected from geometry, probability, or statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3890 Advanced Honors Experience in Mathematics
Prerequisites: Honors College participation and concurrent enrollment In a designated MATH course.
Description: A supplemental Honors experience in mathematics to partner concurrently with designated upper-division MATH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 3910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 3933 Introduction to Mathematical Research
Prerequisites: MATH 3013 with grade of "C" or better; MATH 3613 with grade of "C" or better recommended.
Description: A project-based introduction to the core methods used in mathematical research: computation, pattern recognition, conjecture, proof, and generalization. Students conduct inquiries in various mathematical areas to be selected from number theory, combinatorics, game theory, and others. Calculation and computer experimentation will be used to gather data and facilitate recognition of patterns. Written reports and oral presentation of solutions required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4003 Mathematical Logic and Computability
Prerequisites: MATH 3613 or PHIL 3003 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Lowenheim-Skolem theorem, undecidability of first order logic, Godel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Godel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as PHIL 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4013 Calculus of Several Variables
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Differential and integral calculus of functions of several variables, vector analysis, Stokes' Theorem, Green's Theorem and applications. May not be used for degree credit with MATH 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4023 Introduction to Analysis
Prerequisites: MATH 2153 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to analysis of functions of one real variable emphasizing the reading and writing of mathematical proof. Basic logic, set theory, functions and relations, cardinality of sets. Structure of the real numbers, completeness, open and closed sets, compact sets. Convergence of sequences bounded and monotone sequences, subsequences. Limits of functions, continuity. May not be used for degree credit with MATH 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4033 History of Mathematics
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Historical development of major mathematical ideas and methods from ancient times through the 18th century, with a brief survey of selected later developments. Includes contributions from diverse cultures and influences from astronomy and physics. The course will emphasize understanding historical techniques and relating them to current practice. The course provides background and historical perspectives for future math teachers. May not be used for degree credit with MATH 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4063 Advanced Linear Algebra
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of vector spaces, linear transformations, determinants, orthogonal and unitary transformations, canonical forms, bilinear and hermitian forms, and dual spaces. Honors and regular sections are offered and meet with MATH 5023. May not be used for degree credit with MATH 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4083 Intermediate Analysis
Prerequisites: MATH 4023 with grade of “C” or better.
Description: Continuation of MATH 4023. Review of limits and continuity. Properties of continuous functions, uniform continuity, the derivative, the Mean Value Theorem. The Riemann integral, the Fundamental Theorem of Calculus. Infinite series, power series, pointwise and uniform convergence of series of functions. May not be used for degree credit with MATH 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4143 Advanced Calculus I
Prerequisites: MATH 2163, MATH 3013, and MATH 4023 with grades of “C” or better; grades of “B” or better recommended.
Description: A rigorous treatment of calculus for functions of one and several variables. Elementary topology of Euclidean and metric spaces, continuity and uniform continuity, differentiation and integration in one variable. Honors and regular sections are offered and meet with MATH 5043. May not be used for degree credit with MATH 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4153 Advanced Calculus II
Prerequisites: MATH 4143 with grade of “C” or better; grade of “B” or better recommended.
Description: Continuation of MATH 4143. A rigorous treatment of sequences and series of functions, uniform convergence, and differentiation and integration of vector-valued functions. Honors and regular sections are offered and meet with MATH 5053. May not be used for degree credit with MATH 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4233 Intermediate Differential Equations
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Systems of differential equations, series solutions, special functions, elementary partial differential equations, Sturm-Liouville problems, stability and applications. Previously offered as MATH 4653. May not be used for degree credit with MATH 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4263 Introduction to Partial Differential Equations
Prerequisites: MATH 2163 and MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Solution of the standard partial differential equations (Laplace’s equation, transport equation, heat equation, wave equation) by separation of variables and transform methods, including eigenfunction expansions, Fourier and Laplace transform. Boundary value problems, Sturm-Liouville theory, orthogonality, Fourier, Bessel, and Legendre series, spherical harmonics. May not be used for degree credit with MATH 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4283 Functions of a Complex Variable
Prerequisites: MATH 4013 with a grade of "C" or better, or consent of instructor.
Description: Analytic functions of a complex variable, contour integrals, Taylor series and Laurent series, zeroes and singularities, residues and evaluation of integrals, conformal mapping, and applications. Previously offered as MATH 4673. May not be used for degree credit with MATH 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4343 Introduction to Topology
Prerequisites: MATH 4023 with a grade of "C" or better.
Description: Topological spaces, basic point-set topology, introduction to surfaces and three-manifolds, introduction to knot theory, applications. May not be used for degree credit with MATH 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4403 Geometry
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better.
Description: A rigorous and thorough development of plane geometry including lines, triangles, and circles. Congruence of figures using rigid motions and similarity using dilations. Construction of geometric figures. Additional topics may include non-Euclidean geometries and higher dimensional geometry. Previously offered as MATH 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling
Prerequisites: MATH 2163 and MATH 3013 and (CS 1103 or CS 1113 or ENGR 1412) with grades of "C" or better.
Description: A project-based introduction to 3D computer-aided design tools from a mathematical perspective. Students will learn some of the mathematical background behind computer representation and manipulation of 3D geometry and will apply their knowledge, via both graphical user and programming interfaces, to design and 3D-print models visualizing mathematical concepts. Written reports and oral presentation required. May not be used for degree credit with MATH 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4443 Differential Geometry of Curves and Surfaces
Prerequisites: MATH 2163, Calculus III, and MATH 3013, Linear Algebra, with grades of "C" or better.
Description: Calculus applied to curves and surfaces in three dimensions: length and curvature of plane curves, graphs and level sets, surfaces, tangent spaces, vector fields, orientation. Local and global theory of curves and surfaces, intrinsic and extrinsic geometry, the Gauss-Bonnet Theorem, applications. May not be used for degree credit with MATH 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4453 Mathematical Interest Theory
Prerequisites: MATH 2153 and MATH 2233 with grades of "C" or better.
Description: Fundamental concepts of financial mathematics including simple and compound interest, inflation, yield rates, and equations of value for annuities, stocks, bonds, and other financial instruments. Determining equivalent measures of interest, determining yield rates, estimating rates of return, amortization. Useful in preparing for the actuarial FM exam. May not be used for degree credit with MATH 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better and knowledge of programming, or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems for equations. Same course as CS 4513. May not be used for degree credit with MATH 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4533 Matrix Methods in Machine Learning
Prerequisites: MATH 3013 with grade of "C" or better and knowledge of computer programming, or consent of instructor.
Description: Introduction to matrix methods and other mathematical tools used in machine learning. Topics include linear equations, matrix factorizations, eigenvalue and singular value decompositions, and real-world applications such as data mining and pattern recognition. May not be used for degree credit with MATH 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4553 Introduction to Optimization
Prerequisites: MATH 2163 and MATH 3013 with grades of "C " or better.
Description: A survey of optimization theory and methods for functions of several variables. Unconstrained optimization, gradient methods. Linear programming, simplex method, duality. Nonlinear constrained optimization. May not be used for degree credit with MATH 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4573 Introduction to Mathematical Epidemiology
Prerequisites: MATH 2163, Calculus III, Math 2233, Differential Equations, and MATH 3013, Linear Algebra, with grades of "C" or better; and basic experience in coding in MATLAB, Python, R, or similar programming language or consent of instructor.
Description: An introduction to the process of applying mathematical and computational techniques to understand the dynamics of infectious diseases. Classical epidemic models including the Kermack-McKendrick SIR model and its variations. The basic reproduction number as a measure of pathogen transmissibility. Mathematical aspects of epidemic models including steady states and stability analysis. Numerical solutions and simulations of infectious disease models. Includes independent projects, written reports, and oral presentations. May not be used for degree credit with MATH 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4590 Professional Practice in Mathematics
Prerequisites: Declared major in mathematics and consent of instructor.
Description: Internship or practicum experience applying mathematical principles to solve problems encountered during employment or an internship in business, industry, or government. Written and oral reports may be required. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4613 Abstract Algebra I
Prerequisites: MATH 3613 with grade of “C” or better; grade of “B” or better recommended.
Description: A rigorous treatment of group theory including subgroups and quotient groups, isomorphism and homomorphism, structure theory, group actions, and the Sylow theorems. Introduction to rings, ideals, and homomorphisms. Honors and regular sections are offered and meet with MATH 5003. May not be used for degree credit with MATH 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4623 Abstract Algebra II
Prerequisites: MATH 4613 with grade of “C” or better; grade of “B” or better recommended.
Description: Continuation of MATH 4613. A rigorous treatment of ring theory including ideals, homomorphism, unique factorization domains, principal ideal domains, modules and vector spaces. Field theory and Galois theory. Honors and regular sections are offered and meet with MATH 5013. May not be used for degree credit with MATH 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4663 Combinatorics
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: Introduction to graph theory and network theory, counting techniques, generating functions, recurrence relations, and difference equations. Previously offered as MATH 4273. May not be used for degree credit with MATH 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4713 Number Theory
Prerequisites: MATH 3613 with a grade of "C" or better.
Description: Divisibility of integers, congruencies, quadratic residues, distribution of primes, continued fractions and the theory of ideals. Previously offered as MATH 4243. May not be used for degree credit with MATH 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4753 Introduction to Cryptography
Prerequisites: MATH 3013 and (MATH 3613 or CS 3653) with grades of "C" or better.
Description: Classical and modern techniques for transmitting and managing information in the presence of eavesdroppers or adversaries and the mathematical principles on which they are based. Symmetric and asymmetric ciphers such as RSA and public key cryptography. Modular arithmetic, the factoring problem, and the discrete logarithm problem. May not be used for degree credit with MATH 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4813 Groups and Representations
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to groups, group actions, symmetry groups, representations and characters. Further topics may include infinite symmetry groups, applications to chemistry and physics, finite isometry groups and geometry. May not be used for degree credit with MATH 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4900 Undergraduate Research
Prerequisites: Consent of instructor.
Description: A guided program of independent reading and research under the direction of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4950 Problem Solving Seminar
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: The general process of problem solving. Selected problem-solving techniques. Applications to challenging problems from all areas of mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4963 Preparation for Senior Thesis
Prerequisites: Consent of instructor, junior or senior standing.
Description: A guided program of independent reading and research under the direction of a faculty member. This course may serve as the first part of a two-semester senior thesis or senior honors thesis experience.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4973 Senior Thesis
Prerequisites: Consent of instructor, senior standing.
Description: A guided program of independent reading and research under the direction of a faculty member. The project culminates in an oral presentation, and a written report also approved by a second faculty reader.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4993 Senior Honors Thesis
Prerequisites: Consent of instructor, senior standing, and Honors Program participation.
Description: A guided program of independent reading and research under the direction of a faculty member. The project culminates in an oral presentation, and a written report also approved by a second faculty reader. Required for graduation with Departmental honors in mathematics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 5000 Master's Research and Thesis
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in the master's report or master's thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5003 Abstract Algebra I
Prerequisites: MATH 3613 with grade of "C" or better; grade of "B" or better recommended.
Description: A rigorous treatment of group theory including subgroups and quotient groups, isomorphism and homomorphism, structure theory, group actions, and the Sylow theorems. Introduction to rings, ideals, and homomorphisms. Meets with MATH 4613. May not be used for degree credit with MATH 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5010 Seminar in Mathematics
Prerequisites: Consent of instructor.
Description: Topics in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5013 Abstract Algebra II
Prerequisites: A grade of "C" or better in one of MATH 4613 or MATH 5003; grade of "B" or better recommended.
Description: Continuation of MATH 5003. A rigorous treatment of ring theory including ideals, homomorphism, unique factorization domains, principal ideal domains, modules and vector spaces. Field theory and Galois theory. Meets with MATH 4623. May not be used for degree credit with MATH 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5023 Advanced Linear Algebra
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of vector spaces, linear transformations, determinants, orthogonal and unitary transformations, canonical forms, bilinear and Hermitian forms, and dual spaces. Meets with MATH 4063. May not be used for degree credit with MATH 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5033 History of Mathematics
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Historical development of major mathematical ideas and methods from ancient times through the 18th century, with a brief survey of selected later developments. Includes contributions from diverse cultures and influences from astronomy and physics. The course will emphasize understanding historical techniques and relating them to current practice. The course provides background and historical perspectives for future math teachers. No credit for students with credit in MATH 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5043 Advanced Calculus I
Prerequisites: MATH 2163, MATH 3013, and MATH 4023 with grades of “C” or better; grades of “B” or better recommended.
Description: A rigorous treatment of calculus for functions of one and several variables. Elementary topology of Euclidean and metric spaces, continuity and uniform continuity, differentiation and integration in one variable. Meets with MATH 4143. May not be used for degree credit with MATH 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5053 Advanced Calculus II
Prerequisites: A grade of “C” or better in one of MATH 4143 or MATH 5043; grade of “B” or better recommended.
Description: Continuation of MATH 5043. A rigorous treatment of sequences and series of functions, uniform convergence, and differentiation and integration of vector-valued functions. Meets with MATH 4153. May not be used for degree credit with MATH 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5063 Calculus of Several Variables
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Differential and integral calculus of functions of several variables, vector analysis, Stokes’ Theorem, Green’s Theorem and applications. May not be used for degree credit with MATH 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5073 Introduction to Analysis
Prerequisites: MATH 2153 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to analysis of functions of one real variable emphasizing the reading and writing of mathematical proof. Basic logic, set theory, functions and relations, cardinality of sets. Structure of the real numbers, completeness, open and closed sets, compact sets. Convergence of sequences bounded and monotone sequences, subsequences. Limits of functions, continuity. May not be used for degree credit with MATH 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5083 Intermediate Analysis
Prerequisites: MATH 4023 with grade of “C” or better.
Description: Continuation of MATH 4023. Review of limits and continuity. Properties of continuous functions, uniform continuity, the derivative, the Mean Value Theorem. The Riemann integral, the Fundamental Theorem of Calculus. Infinite series, power series, pointwise and uniform convergence of series of functions. May not be used for degree credit with MATH 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5133 Stochastic Processes
Prerequisites: MATH 2233, MATH 3013 and STAT 5123.
Description: Definition of stochastic processes, probability structure, mean and covariance function, the set of sample functions, stationary processes and their spectral analysis, renewal processes, counting analysis, discrete and continuous Markov chains, birth and death processes, exponential model, queuing theory. Same course as IEM 5133 & STAT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5143 Real Analysis I
Prerequisites: MATH 4153 or MATH 5053.
Description: Measure theory, measurable functions, integration and differentiation of functions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5153 Real Analysis II
Prerequisites: MATH 5143.
Description: Differentiation with respect to measures. Aspects of point set topology: nets, locally compact spaces, product spaces. Elementary functional analysis: Hahn-Banach, uniform boundedness, open mapping theorems, weak topologies, Hilbert spaces. Riesz representation theorems: duals of Lebesgue spaces and spaces of continuous functions. Other topics may include: elements of Fourier analysis, distribution theory, Stone-Weierstrass theorem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5193 Differentiable Manifolds
Prerequisites: MATH 4153 or MATH 5053; recommended MATH 4343 or MATH 5303.
Description: Differentiable manifolds and maps, tangent vectors, vector fields, integral curves, submanifolds, differential forms, and integration. Additional topics may be selected from: flows, Lie derivatives, the Frobenius theorem, structures defined by differential forms, vector bundles and de Rham theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5203 Intermediate Differential Equations
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Systems of differential equations, series solutions, special functions, elementary partial differential equations, Sturm-Liouville problems, stability and applications. Previously offered as MATH 4653. May not be used for degree credit with MATH 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5213 Fourier Analysis and Wavelets
Prerequisites: MATH 4013 or MATH 4023.
Description: Orthogonal series expansions, Fourier series and integrals and boundary value problems. Haar wavelets and multiresolution analysis. Applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5233 Partial Differential Equations
Prerequisites: MATH 4013, MATH 4143 and MATH 4233 or consent of instructor.
Description: Representation formulas for solutions of transport equation, Laplace's equation, heat equation and wave equation, mean value theorems, maximum principle, Green's functions, characteristics, eigenvalue problems, separation of variables, transform methods, variational methods, general theory of first order equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5243 Ordinary Differential Equations
Prerequisites: MATH 4143 or MATH 5043; MATH 4233; MATH 5023.
Description: Banach space, contraction mapping principle, existence and uniqueness theorems, linear systems, higher-order linear equations, boundary value and eigenvalue problems, stability and asymptotic behavior, attractors, Gronwall's inequality, Liapunov method.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5253 Advanced Ordinary Differential Equations
Prerequisites: MATH 5243.
Description: Selected topics in ordinary differential equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5263 Introduction to Partial Differential Equations
Prerequisites: MATH 2163 and MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Solution of the standard partial differential equations (Laplace's equation, transport equation, heat equation, wave equation) by separation of variables and transform methods, including eigenfunction expansions, Fourier and Laplace transform. Boundary value problems, Sturm-Liouville theory, orthogonality, Fourier, Bessel, and Legendre series, spherical harmonics. May not be used for degree credit with MATH 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5273 Functions of a Complex Variable
Prerequisites: MATH 4013 with a grade of "C" or better or consent of instructor.
Description: Analytic functions of a complex variable, contour integrals, Taylor series and Laurent series, zeroes and singularities, residues and evaluation of integrals, conformal mapping, and applications. Previously offered as MATH 4673. May not be used for degree credit with MATH 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5283 Complex Analysis I
Prerequisites: MATH 4153 or MATH 5053.
Description: Basic topology of the plane, functions of a complex variable, analytic functions, transformations, infinite series, integration and conformal mapping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5293 Complex Analysis II
Prerequisites: MATH 5283.
Description: Riemann Mapping Theorem, meromorphic functions, analytic continuation, Dirichlet problem, and entire functions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5303 General Topology
Prerequisites: MATH 4143 or MATH 5043 or consent of instructor.
Description: Basic properties of topological spaces and continuous functions, including connectedness, compactness, and separation and countability axioms. Metric, product, and quotient spaces, Urysohn lemma, and Tietze extension theorem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5313 Geometric Topology
Prerequisites: MATH 4613 or MATH 5003, MATH 5303.
Description: Manifolds, complexes, the fundamental group, covering spaces, combinatorial group theory, the Seifert-Van Kampen theorem, and related topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5343 Introduction to Topology
Prerequisites: MATH 4023 with a grade of "C" or better.
Description: Topological spaces, basic point-set topology, introduction to surfaces and three-manifolds, introduction to knot theory, applications. May not be used for degree credit with MATH 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5413 Differential Geometry
Prerequisites: MATH 4013 or MATH 4143 or MATH 5043.
Description: Differential manifolds, vector fields, differential forms, connections, Riemannian metrics, geodesics, completeness, curvature, and related topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5423 Geometry and Algorithms in Three-Dimensional Modeling
Prerequisites: MATH 2163 and MATH 3013 and (CS 1113 or ENGR 1412) with grades of "C" or better.
Description: A project-based introduction to 3D computer-aided design tools from a mathematical perspective. Students will learn some of the mathematical background behind computer representation and manipulation of 3D geometry and will apply their knowledge, via both graphical user and programming interfaces, to design and 3D-print models visualizing mathematical concepts. Written reports and oral presentation required. May not be used for degree credit with MATH 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5443 Differential Geometry of Curves and Surfaces
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Calculus applied to curves and surfaces in three dimensions: length and curvature of plane curves, graphs and level sets, surfaces, tangent spaces, vector fields, orientation. Local and global theory of curves and surfaces, intrinsic and extrinsic geometry, the Gauss-Bonnet Theorem, applications. May not be used for degree credit with MATH 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5453 Mathematical Interest Theory
Prerequisites: MATH 2153 and MATH 2233 with grades of "C" or better.
Description: Fundamental concepts of financial mathematics including simple and compound interest, inflation, yield rates, and equations of value for annuities, stocks, bonds, and other financial instruments. Determining equivalent measures of interest, determining yield rates, estimating rates of return, amortization. Useful in preparing for the actuarial FM exam. May not be used for degree credit with MATH 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5473 Financial Calculus
Prerequisites: MATH 4143 or MATH 5043, STAT 4203 or consent of instructor.
Description: Introduction to derivative pricing and market derivatives. Introduction to the Ito-Doeblin calculus and martingales; the martingale properties of Brownian motion, the Black-Scholes-Merton theory as a simple, special case of martingale pricing, market models of modern fixed income pricing. Insurance, hedging, and options.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5503 Introduction to Optimization
Prerequisites: MATH 2163 and MATH 3013 with grades of "C " or better.
Description: A survey of optimization theory and methods for functions of several variables. Unconstrained optimization, gradient methods. Linear programming, simplex method, duality. Nonlinear constrained optimization. May not be used for degree credit with MATH 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better and knowledge of programming, or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems of equations. May not be used for degree credit with MATH 4513 or CS 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5533 Matrix Methods in Machine Learning
Prerequisites: MATH 3013 with grade of "C" or better and knowledge of computer programming, or consent of instructor.
Description: Introduction to matrix methods and other mathematical tools used in machine learning. Topics include linear equations, matrix factorizations, eigenvalue and singular value decompositions, and real-world applications such as data mining and pattern recognition. May not be used for degree credit with MATH 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5543 Numerical Analysis for Differential Equations
Prerequisites: MATH 4233, MATH 4513 or CS 4513.
Description: Advanced machine computing, algorithms, analysis of truncation and rounding errors, convergence and stability applied to discrete variables, finite elements, and spectral methods in ordinary and partial differential equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5553 Numerical Analysis for Linear Algebra
Prerequisites: MATH 3013, and MATH 4513 or CS 4513.
Description: Advanced machine computing, algorithms, analysis of rounding errors, condition, convergence, and stability applied to direct and iterative solution of linear systems of equations, linear least squares problems, and algebraic eigenvalue problems, including LU and QR factorization, conjugate gradients, QR algorithm, and Lanczos method.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5563 Finite Element Methods for Partial Differential Equations
Prerequisites: MATH 4023; MATH 4263; and MATH 4513 or CS 4513 or equivalent. MATH 4143 or MATH 5043 preferred.
Description: Theory and practice of finite element methods, including elliptic boundary value problems, weak formulations, the Ritz-Galerkin method, conforming and non-conforming finite elements, error estimates, and numerical experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5573 Introduction to Mathematical Epidemiology
Prerequisites: MATH 2163, Calculus III, Math 2233, Differential Equations, and Math 3013, Linear Algebra, with grades of "C" or better; and basic experience coding in MATLAB, Python, R, or similar programming language, or consent of instructor.
Description: An introduction to the process of applying mathematical and computational techniques to understand the dynamics of infectious diseases. Classical epidemic models including the Kermack-McKendrick SIR model and its variations. The basic reproduction number as a measure of pathogen transmissibility. Mathematical aspects of epidemic models including steady states and stability analysis. Numerical solutions and simulations of infectious disease models. Includes independent projects, written reports, and oral presentations. May not be used for degree credit with MATH 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5580 Case Studies in Applied Mathematics
Prerequisites: MATH 2233, MATH 4013, and knowledge of computer programming.
Description: Selected mathematical problems from industry. Independent problem-solving, oral presentation of solutions, and technical report writing. Seminar-style format. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5593 Methods of Applied Mathematics
Prerequisites: MATH 2233, MATH 4013, and knowledge of computer programming.
Description: Continuous and discrete techniques in modern applied mathematics. Positive definite matrices, eigenvalues and dynamical systems, discrete and continuous equilibrium equations, least squares estimation and the Kalman filter, potential flow, calculus of variations, network flows, and combinatorics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5613 Algebra I
Prerequisites: MATH 4613 or MATH 5003.
Description: A rigorous treatment of classical results in group theory, ring theory, and field theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5623 Algebra II
Prerequisites: MATH 5613.
Description: A rigorous treatment of classical results in module theory, multilinear algebra, and representation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5673 Combinatorics
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: Introduction to graph theory and network theory, counting techniques, generating functions, recurrence relations, and difference equations. May not be used for degree credit with MATH 4663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5713 Number Theory
Prerequisites: MATH 3613 with a grade of "C" or better.
Description: Divisibility of integers, congruencies, quadratic residues, distribution of primes, continued fractions and the theory of ideals. May not be used for degree credit with MATH 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5753 Introduction to Cryptography
Prerequisites: MATH 3013 and (MATH 3613 or CS 3653) with grades of "C" or better.
Description: Classical and modern techniques for transmitting and managing information in the presence of eavesdroppers or adversaries and the mathematical principles on which they are based. Symmetric and asymmetric ciphers such as RSA and public key cryptography. Modular arithmetic, the factoring problem, and the discrete logarithm problem. May not be used for degree credit with MATH 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5803 Groups and Representations
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to groups, group actions, symmetry groups, representations and characters. Further topics may include infinite symmetry groups, applications to chemistry and physics, finite isometry groups and geometry. May not be used for degree credit with MATH 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5903 Seminar and Practicum in the Teaching of College Mathematics
Prerequisites: Graduate standing in mathematics or consent of instructor.
Description: Foundations of college mathematics teaching, including lecturing, grading and exam preparation. Adapting classroom activities to better serve different types of learners. Current trends in mathematics education such as calculus reform, cooperative learning, and technology in the classroom. Previously offered as MATH 5902.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5913 Introduction to Research in Mathematics Education
Prerequisites: MATH 3613 or MATH 4023 or equivalent.
Description: Examination and critique of research in mathematics education. A comparative study of research design, analysis, and reporting of both qualitative and quantitative research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6000 Doctoral Research and Dissertation
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in the PhD or EdD thesis. Offered for variable credit, 1-9 credit hours, maximum of 24 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6010 Advanced Seminar in Mathematics
Prerequisites: Consent of instructor and student's advisory committee.
Description: Directed reading on advanced topics in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6090 Doctoral Research Project
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in preliminary doctoral research project. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6143 Functional Analysis I
Prerequisites: MATH 4613 or MATH 5003 or MATH 5023, MATH 5153, MATH 5303.
Description: Theory of topological vector spaces including metrizability, consequences of completeness, Banach spaces, weak topologies, and convexity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6213 Harmonic Analysis
Prerequisites: MATH 5153, MATH 5283.
Description: Classical results giving connections among the size of a harmonic or analytic function on a complex domain, the existence and smoothness of its boundary values, and behavior of the Fourier series; selected extensions, related topics and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6233 Advanced Partial Differential Equations
Prerequisites: MATH 5233 or consent of instructor.
Description: Schwarz class, tempered distributions, basic linear functional analysis, Holder spaces, Sobolev spaces, spaces involving time, Sobolev inequalities, existence and regularity theory of second-order elliptic, parabolic, and hyperbolic equations, semigroup theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6263 Potential Theory
Prerequisites: MATH 5153 and MATH 5283.
Description: Subharmonic and superharmonic functions, potentials, energy problems (including problems with external fields), equilibrium measures, capacities, Dirichlet problems, regularity, Green functions, harmonic measures, conformal mappings, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6283 Several Complex Variables
Prerequisites: MATH 5283.
Description: Elements of function theory of several complex variables, including extension phenomena, domains of holomorphy, notions of convexity, holomorphic maps, and complex analytic varieties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6290 Topics in Analysis
Prerequisites: Consent of instructor.
Description: Advanced topics in analysis. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6323 Algebraic Topology I
Prerequisites: MATH 5313.
Description: Chain complexes, homology and cohomology groups, the Eilenberg-Steenrod axioms, Mayer-Vietoris sequences, universal coefficient theorems, the Eilenberg-Zilber theorem and Kunneth formulas, cup and cap products, and duality in manifolds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6390 Topics in Topology
Prerequisites: Consent of instructor.
Description: Advanced topics in topology. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6433 Algebraic Geometry
Prerequisites: MATH 5623.
Description: Affine and projective varieties, dimension, algebraic curves, divisors and Riemann-Roch theorem for curves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6453 Complex Geometry
Prerequisites: MATH 5283.
Description: Complex manifolds, analytic sheaves, differential forms, Dolbeault cohomology, Hodge theory, line bundles, divisors, Kodaira embedding, and vanishing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6490 Topics in Geometry
Prerequisites: Consent of instructor.
Description: Advanced topics in geometry. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6513 Theoretical Numerical Analysis
Prerequisites: MATH 5153, MATH 5543 or CS 5543, and MATH 5553 or CS 5553.
Description: An advanced theoretical treatment based on function spaces and operator theory of algorithms for machine computing and analysis of errors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6590 Topics in Applied Mathematics
Prerequisites: Consent of instructor.
Description: Advanced topics in applied mathematics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6613 Commutative Algebra
Prerequisites: MATH 5623.
Description: Commutative rings, exactness properties of modules, tensor products, integral dependence, chain conditions, completions, filtrations, local rings, dimension theory, and flatness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6623 Homological Algebra
Prerequisites: MATH 5623.
Description: Closed and projective classes, resolution and derived functors, adjoint theorem, construction of projective classes in the categories of groups, rings and modules; categories, Abelian categories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6690 Topics in Algebra
Prerequisites: Consent of instructor.
Description: Advanced topics in algebra. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6713 Analytic Number Theory
Prerequisites: MATH 4283 or MATH 5283.
Description: Arithmetic functions, Zeta and L functions, distribution of primes and introduction to modular forms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6723 Algebraic Number Theory
Prerequisites: MATH 5013 or MATH 5623.
Description: Number fields, ideal theory, units, decomposition of primes, quadratic and cyclotomic fields, introduction to local fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6790 Topics in Number Theory
Prerequisites: Consent of instructor.
Description: Advanced topics in number theory. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6813 Lie Groups and Representations
Prerequisites: MATH 4153 or MATH 5053, MATH 4613 or MATH 5003, MATH 5303.
Description: Differentiable manifolds, vector fields, Lie groups, exponential map, homogeneous spaces, representations of compact Lie groups, and maximal tori.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6823 Lie Algebras
Prerequisites: MATH 5013 and MATH 5023.
Description: Matrix groups, Lie algebras, root systems, structure of semisimple Lie algebras, universal enveloping algebra, and representations of lie algebras.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6890 Topics in Representation Theory
Prerequisites: Consent of instructor.
Description: Advanced topics in representation theory. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6923 Research in Undergraduate Mathematics Education
Prerequisites: MATH 5913.
Description: Continuation of MATH 5913 with an emphasis on design of research in undergraduate mathematics education. Development of research questions, review of the literature, data collection and analysis, development and evaluation of research proposals, reporting research results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6990 Topics in Collegiate Mathematics Education
Prerequisites: Consent of instructor.
Description: Advanced topics in collegiate mathematics education. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

Mechanical & Aerospace Eng (MAE)

MAE 3013 Engineering Analysis and Methods I
Prerequisites: A grade of “C” or higher in PHYS 2014 and MATH 2233.
Description: Setup and solution of equations which govern mechanical engineering systems. Application and solution of the governing equations to describe the steady state or transient behavior of dynamics, mechanics and circuit problems. Linear sets of equations, ODEs will be used to describe systems. Solutions may be simplified using complex numbers of Fourier/Laplace transforms. Numerical methods for solutions will be covered. Data analysis, quality control and statistical hypothesis testing will be covered.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mech & Aerospace Engr

MAE 3033 Design of Machines and Mechanisms
Prerequisites: Grades of "C" or higher in ENGR 1332 and MAE 3013 and MAE 3324.
Description: Study of the position, velocity, acceleration, and static and dynamic force behavior of machines and mechanisms. Analysis and synthesis of linkages and gear trains. Characteristics and selection of power sources, including electric motors, hydraulics, pneumatics and internal combustion engines. Lab: Machine tool safety. Use of common machine tools to build machine components. Use of lecture concepts in designing, building, and testing machines and mechanisms.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3113 Measurements and Instrumentation
Prerequisites: Grades of "C" or higher in ENSC 2613 and MAE 3013.
Description: Application of basic electronic laboratory measurement equipment. Selection and testing of transducers for measurement of displacement, time frequency, velocity, pressure, force, temperature, flow-rate, and vibration, for machine design applications. Considerations of accuracy, uncertainty and repeatability. Design projects involving the use of analog and digital integrated circuits and construction of prototype sensors. Practice in the use of signal processing, including digital filtering and applications of Fast Fourier Transform theory. Practice in the use of computer-based data acquisition systems. Preparation of formal reports, including the presentation of plots, figures and tables.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3123 Manufacturing Processes
Prerequisites: Grades of "C" or higher in ENSC 3313.
Description: An introduction to manufacturing processes including the fundamental processes of casting, forging, rolling, extrusion, drawing and metal cutting. Quantitative relationships to identify important parameters which influence a given process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3153 Introduction to MAE Design
Prerequisites: Grades of "C" or higher in (ENSC 2113 or concurrency) and (ENSC 2213 or concurrency).
Description: Identify, formulate and solve complex interdisciplinary engineering problems by applying principles of design, engineering science and mathematics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3223 Thermodynamics II
Prerequisites: A grade of "C" or higher in MAE 3153.
Description: A continuation of ENSC 2213. Irreversibility and availability, power cycles, refrigeration cycles, mixtures and solutions, chemical reactions, phase and chemical equilibrium, and introduction to compressible flow.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3233 Heat Transfer
Prerequisites: A grade of "C" or higher in MAE 3333 or concurrency.
Description: Mechanisms of heat transfer. Steady and transient conduction, free and forced convection, heat exchanger design and analysis, radiation and multiphase behavior. Numerical methods, dimensional analysis and boundary layer theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3253 Applied Aerodynamics and Performance
Prerequisites: Grade of "C" or higher in MATH 2233. Aerospace Engineering majors only.
Description: Relevant fluid properties; standard atmospheres; mathematical models of flows about bodies. Characteristic parameters of airfoils and wings. Thin airfoil theory and flows about finite wings. Boundary layers. Propeller theory. Supersonic and hypersonic flows about wings and lifting bodies. Drag polars. Power required for level flight. Rate of climb and descent. Steady turns. Maximum range and endurance. Design applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3293 Fundamentals of Aerodynamics
Prerequisites: Grades of "C" or higher in MATH 2233 and MAE 3333. Aerospace Engineering majors only.
Description: Introduction to aerodynamic concepts; governing equations of gas flows in one and two dimensions. Inviscid, incompressible flow, flow over airfoils, flow over finite wings, 3D flow; Compressible flow; Basic thermodynamic and dynamic equations. Nozzle and duct flows, choking, normal and oblique shock waves, Prandtl-Meyer expansions, subsonic compressible flow over airfoils, compressible flow through nozzles, intro into viscous flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3324 Mechanical Design I
Prerequisites: Grades of "C" or higher in ENSC 2143 and ENSC 3313 and MAE 3153.
Description: Introduction to the design process. Consideration of reliability, factors of safety, product liability, and economics. Use of codes, standards, and other design resources. Stress analysis of mechanical components such as beams, rings, cylinders, and shafts. Analysis of stiffness and deflection of straight and curved beams, frames, columns, and links. Consideration of static and fatigue failure theories for various types of engineering materials. Incorporation of stress and deformation analyses and applicable material failure theories literatively until all design needs and constraints are satisfied. Same course as MAE 3323.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mech & Aerospace Engr

MAE 3333 Fundamental Fluid Dynamics
Prerequisites: Concurrent in (ENGR 2421 or MAE 3113) and Grades of "C" or higher in ENSC 2113 and MATH 2153.
Description: Fluid statics; conservation of mass, momentum and energy in fixed and moving control volumes; steady and unsteady Bernoulli's equation; fluid kinematics and differential analysis of fluid flow; Navier-Stokes equations and exact solutions; dimensional analysis and similitude; laminar and turbulent flow; internal flows; boundary layer theory; lift and drag; pumps.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3403 Computer Methods in Analysis and Design
Prerequisites: Grades of "C" or higher in ENGR 1412 and ENSC 2123 and MAE 3013 and (MAE 3724 or concurrency).
Description: Application of linear algebra, numerical methods, statistics, and computer methods in the design, analysis, and simulation of mechanical, thermal, and fluid systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3524 Thermal Fluids Design
Prerequisites: Grades of "C" or higher in ENSC 2213 and MAE 3153 and MAE 3233 and MAE 3333.
Description: Design, modeling and simulation of thermal systems. Analysis and modeling of components such as fans, pumps, ducts, pipes, fittings, heat exchangers, and heat pumps.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3724 Dynamic Systems Analysis and Introduction to Control
Prerequisites: Grades of "C" or higher in ENSC 2123 and ENSC 2613 and MAE 3013 and (MAE 3113 or ENGR 2421).
Description: Physical and mathematical modeling of mechanical, electrical, fluid, thermal and mixed dynamic systems. Systems analysis in the time domain and in the frequency domain, with an emphasis on first and second order systems. Laplace transform method for solving ordinary linear differential equations. Representation of system models using transfer functions, block diagrams and state variable forms. Use of computer methods for solving linear and nonlinear dynamic system models. Introduction to dynamic system control. Laboratory investigation to demonstrate application. Same course as MAE 3723.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4003 Introduction to Autonomous Systems
Prerequisites: Grades of "C" or higher in MAE 3403 and (MAE 3724 or ECEN 3723).
Description: Review of representations, coordinate transformations, and kinematics and dynamics of mobile ground and/or aerial robots. Introduction to robot mobility, I.e., path planning, trajectory generation, and trajectory tracking. Introduction to robot perception using sensors such as inertial measurement units, odometry, laser distance scanners, and cameras. Introduction to robot localization using sensor fusion. Introduction to Robot Operating System (ROS).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4010 Mechanical and Aerospace Engineering Projects
Prerequisites: Senior standing in MAE and consent of instructor.
Description: Special projects and independent study in mechanical or aerospace engineering. Offered for variable credit, 1 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 4020 Special Offerings
Prerequisites: Senior standing in MAE and consent of instructor.
Description: This course will be used as a temporary number for new undergraduate course offerings or special one-time only undergraduate course offerings. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours and a maximum of 6 credit hours obtained. May be used as an MAE elective with departmental permission, if not used to fulfill technical elective credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4053 Automatic Control Systems
Prerequisites: A grade of "C" or higher in MAE 3724 or ECEN 3723.
Description: Properties of feedback control systems, mathematical models of basic components, state-variable models of feedback systems, design specifications of control systems, time-domain analysis, stability, stability robustness, transform analysis, frequency domain techniques, root-locus, design of single-input-single-output systems and compensation techniques for engineering systems. Same course as ECEN 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4063 Mechanical Vibrations
Prerequisites: A grade of "C" or higher in MAE 3724.
Description: Lumped parameter analysis of multi-mode vibrating systems. Analysis techniques including classical analytical methods, matrix methods and numerical methods. Selection and design of vibration isolation systems. Selection of vibration instrumentation. Machine dynamics, including balancing, whirl, nonlinear effects, and self-excited vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4213 Spacecraft Design
Prerequisites: A grade of "C" or higher in MAE 3253 and (MAE 3113 or [ENGR 2421 and concurrent in ENSC 2411]).
Description: Elements of basic aerospace engineering concepts focusing on spacecraft design. Fundamental material will include orbital dynamics, rocket theory and launch vehicle performance, principles of spacecraft stability and control, propulsion systems, aerospace structures, space environments and its effect on spacecraft design (thermal, radiation, magnetosphere and solar wind), atmospheric reentry, thermal management, power systems, telecommunications, cost analysis, spacecraft design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4223 Aerospace Engineering Laboratory
Prerequisites: Grades of "C" or higher in MAE 3253 and MAE 4283 and (MAE 3113 or ENGR 2421). Aerospace Engineering majors only.
Description: Experimental study of aerospace principles including topics in aeronautics and astronautics. State-of-the-art instrumentation, diagnostic, and computerized data acquisition equipment and techniques applied to experiments including application of low speed wind tunnel testing techniques, rocket propulsion and control-jet experiments, fundamentals of supersonic nozzles, and flight test evaluation of performance, stability, control, and handling qualities of a propeller-driven airplane.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4243 Aerospace Propulsion and Power
Prerequisites: Grades of “C” or higher in MAE 3153 and MAE 3293. Aerospace Engineering majors only.
Description: The study of aerospace power and propulsion engines utilizing a gas as the working fluid. Design and analysis of complete aircraft engine systems and individual components of the aircraft engine. Engine component matching for design using analysis routines, including inlets and diffusers, fans and compressors, combustors, turbines, nozzles, and propellers. Additional propulsion and power systems including chemical and non-chemical rocket motors and other internal combustion engines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4263 Energy Conversion Systems
Prerequisites: Grades of "C" or higher in MAE 3153 and MAE 3524.
Description: This course covers the use of renewable and non-renewable energy sources in power production. Energy conversion processes are analyzed, and performance characteristics of components and systems are modeled using modern computational methods. Applications include overall design of conventional Rankine power systems and may also include design of nuclear, solar, wind, wave, thermoelectric, and geothermal energy systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4273 Experimental Fluid Dynamics
Prerequisites: Grades of "C" or higher in MAE 3333 and (MAE 3113 or [ENGR 2421 and ENSC 3231]).
Description: Experimental study of basic and applied fluid dynamics systems with comparisons to analytical predictions. Fluid dynamics instrumentation, digital data acquisition and processing, design of facilities and experiments, technical report writing and design project with experimental verification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4283 Aerospace Vehicle Stability and Control
Prerequisites: Grades of "C" or higher in MAE 3253 and MAE 3724. Aerospace Engineering majors only.
Description: Motion and control of aerospace vehicles. Derivation of equations of motion for aircraft and spacecraft. Aerodynamic stability derivatives. Static and dynamic aircraft stability and control. Handling qualities. Satellite orbital and attitude dynamics. Satellite attitude control. Design experience for stability and control in aeronautical and astronautical vehicles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4313 Advanced Processing of Engineered Materials
Prerequisites: Grades of "C" or higher in ENSC 3313.
Description: Introduction of novel processing methods for a range of engineered materials, such as electro-slag remelting, vacuum melting, melting to remove tramp elements, precision casting, sintering, hot-pressing, directional solidification, mechanical alloying, liquid infiltration, net-shaped finishing, superplastic forming, sol-gel processing, float glass process, tape laying, microwave processing, laser processing, CVD and PVD, sputtering, ion plating, ultraprecision machining and grinding, polishing and lapping, multilayer coatings, Czhochralski single crystal growth, processing of nanocrystalline materials, engineered surfaces and surface modification, and layer processing for electronic materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4333 Mechanical Metallurgy
Prerequisites: Grades of "C" or higher in ENSC 3313 and (MAE 3113 or ENGR 2421).
Description: Mechanical deformation processes and strengthening mechanisms in engineering materials. Material failure modes including creep, fatigue, stress corrosion, ductile and brittle fractures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4342 Design Projects I
Prerequisites: Grades of "C" or higher in MAE 3233 and MAE 3324 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 3231, ENSC 3311]).
Description: Two-semester design project with team format. Projects are sponsored by a company, agency, or individual. Team members work with sponsors and faculty who serve as mentors in fields related to their topics. Students complete oral presentations, progress reports, and create a professional log book to document their activities and contributions. Topics include safety, patent law, product liability, report writing, and scheduling.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4344 Design Projects
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3524 and MAE 3724 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]).
Description: Students work in small teams on a semester-long design project sponsored by a company, agency, or individual. Team members work with mentors from sponsors and with faculty members in fields related to their topics. Presentations on safety, patent law, product liability, report writing, oral presentations, scheduling and ideation. Oral presentations, progress reports, and a professional log book documenting personal activity and contributions.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Mech & Aerospace Engr

MAE 4352 Design Projects II
Prerequisites: A grade of "C" or higher in MAE 4342.
Description: Second of two-semester sequence of senior design courses.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4353 Mechanical Design II
Prerequisites: A grade of "C" or higher in MAE 3324.
Description: Design of power transmission systems, including belts, chains and gears. Selection and application of hydraulic and pneumatic components in machine design applications. Selection of electric motors, actuators, encoders, and related electromechanical components. Design practice in the form of short projects integrating segments of the course. Same course as BAE 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4354 Aerospace Systems Design for Mechanical Engineers
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3524 and MAE 3724 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]).
Description: Multidisciplinary design of aerospace vehicles. Multidisciplinary teams that work on a semester-long project that includes the design, construction, and a flight test of an aerospace vehicle optimized for a given set of requirements. Teamwork, leadership and presentation skills emphasized.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 5 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4363 Advanced Methods in Design
Prerequisites: Grades of "C" or higher in MAE 3324 and (MAE 3113 or ENSC 2411 or ENSC 2611 or ENSC 2613 or ENSC 3311).
Description: Analytical and experimental techniques for the analysis of vibration, stress, force and motion. The finite element analysis method is introduced. Strain gages, photoelasticity, force gages, deflection gages, accelerometers and other transducers and methods are used in the laboratory. Projects involve the combined use of advanced analytical and experimental methods to realize optimal designs.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 4 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4374 Aerospace System Design
Prerequisites: Grades of "C" or higher in MAE 4243 and MAE 4283 and MAE 4513 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]). Aerospace Engineering majors only.
Description: Multidisciplinary design of aerospace vehicles. Multidisciplinary teams that work on a semester-long project that includes the design, construction, and a flight test of an aerospace vehicle optimized for a given set of requirements. Teamwork, leadership and presentation skills emphasized.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4513 Aerospace Structures
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3403 and MAE 3253. Aerospace Engineering majors only.
Description: Design and analysis of flight structures. Topics from two and three-dimensional elasticity. Behavior of composite materials. Stress and deflection analysis of thin-skinned stiffened structures. Introduction to the finite element method and its applicability in the design process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4583 Corrosion
Prerequisites: A grade of "C" or better in ENSC 3313.
Description: Modern theory of corrosion and its applications in preventing and controlling corrosion. Thermodynamics, Pourbaix diagrams, kinetics, polarization, passivation, effect of stress, cathodic protection, alloying, coatings. Lab experiments to characterize, simulate, diagnose and control corrosion.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4623 Biomechanics
Prerequisites: Grades of "C" or higher in MATH 2163 and MAE 3153 and MAE 3324.
Description: This course will provide students with the basic knowledge necessary to conduct biomechanics investigations, design implants and prosthetics, and interact with other medical professionals. Covering a wide selection of topics ranging from cell to whole-body mechanics and behaviors. Specific topics will be: cellular biomechanics, bone biomechanics and fracture, muscle biomechanics and injuries, physiological functions, human motion analysis, biomaterials and implants design, prosthetics design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4703 Design of Indoor Environmental Systems
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: Design of heating, ventilating and air conditioning systems. Calculation of heating and cooling loads.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4713 Thermal Systems Realization
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: This course will develop the tools required to design, analyze, and improve thermal energy systems. There will be an emphasis on practical understanding and detailed analysis techniques for system components, integration, and design. Some topics included are: the vapor compression cycle (for refrigeration and heat pump applications); compressor and heat exchanger analysis; and waste-heat recovery topics including Organic Rankine Cycles (ORC).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4723 Refrigeration Systems Design
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: This course covers the modeling, analysis, and design of vapor compression refrigeration systems applied to air-conditioning and refrigeration applications. There will be an emphasis on practical understanding of components, system integration, and system design. This includes analysis and selection of compressors, heat exchangers and expansion devices as well as the integration of these components into system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4733 Mechatronics Design
Prerequisites: Grades of "C" or higher in MAE 3153 and MAE 3403 and (MAE 3113 or [ENGR 2421 and ENSC 2411]).
Description: Design of mechanical and electrical components, including sensors and actuators into an integrated environment using microcontrollers. Software design using an easy-to-program microcontroller embodies the importance of software implementation into the overall engineering system. Design practice with given design projects to build up skills plus an open-ended term design project of the student's choosing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5000 Master's Thesis
Prerequisites: Graduate standing in MAE and consent of student's adviser.
Description: A student studying for a master's degree who elects to write a thesis must enroll in this course. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5003 Advanced Biomaterials Science and Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Engineering issue that are implicit in understanding the interactions of living tissue and processed materials will be introduced. Emphasis is on identifying the processes in which cells interact with surfaces and particulate matter and the outcome of these interactions. Highlighted biological responses will include inflammation and coagulation. Also, biomaterial issues related to drug delivery and tissue engineering will be discussed. Same course as CHE 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5010 Mechanical and Aerospace Engineering Projects
Description: Project in research assigned by the student's advisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5013 Physiological System Analysis for Engineers
Prerequisites: Graduate standing or consent of instructor.
Description: Introduce the basic physiology concepts used widely in biomedical engineering research; and introduce and develop engineering concepts and approaches for quantitative analysis of physiological systems. Engineering principles of mechanical properties of various tissue and organ systems under normal and diseased conditions. Same course as CHE 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5020 Special Offerings
Prerequisites: Graduate standing or consent of instructor.
Description: This course will be used as a temporary number for new graduate course offerings or special one-time only graduate course offerings. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours and no set maximum of credit hours obtained.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5023 Advanced Biofluid Mechanics
Prerequisites: Graduate standing or MAE 3233 (or equivalent).
Description: From sub-cellular to the organ level, life is supported by mass transfer processes, which encompass everything from free diffusion to the convection of bulk fluids. Therefore, to understand the body's functions, it is necessary to apply the fundamental fluid mechanics and heat transfer laws to physiological systems. Special emphasis will be placed on different length scales in physiological system, biorheology, conservation laws, mechanical coupling to vessel deformation and relevant physiology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5030 Engineering Practice
Prerequisites: Graduate standing in MAE and consent of student's adviser.
Description: Solution of real-life engineering design and development problems in an actual or simulated industrial environment. Activities include application of design and testing procedures, economic evaluation and periodic oral and written reporting on one or more assigned problems. Activities must be approved in advance by the adviser. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5033 Advanced Biomedical Engineering
Prerequisites: Consent of instructor.
Description: Principles and engineering analysis of biomedical processes. Artificial organs, biomaterials, tissue engineering, transport in biological systems, biomedical imaging and drug delivery systems. Same course as CHE 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5053 Design of Engineering Experiments
Prerequisites: Graduate standing.
Description: The purpose of this course is to teach graduate students how to apply statistical methods to the solution of biological and engineering problems. They will learn how to use statistical methods to design experiments, present and analyze experimental data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5063 Soft Tissue Mechanics
Prerequisites: MAE 3324 or an equivalent course with the consent of the instructor.
Description: Introduction to the most commonly used computational techniques for investigating and analyzing the behavior of biological soft tissues. Application of computational methods such as elasticity, viscoelasticity, and poroelasticity for numerically modeling the properties of biomaterials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5073 Advanced Mechanical Vibrations
Prerequisites: MAE 4063 or consent of instructor.
Description: Analysis of nonlinear vibrations, classical analysis of continuous systems and numerical methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5080 Fundamental Topics
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamental topics that are typically introduced in the undergraduate senior year curriculum with additional depth and breadth commensurate with the graduate program. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours, maximum of 9 credit hours allowed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5083 Engineering Acoustics
Prerequisites: Graduate standing or consent of instructor.
Description: Acoustical analysis and measurement techniques, with emphasis on design applications for noise and vibration control in machinery and in buildings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5093 Numerical Engineering Analysis
Prerequisites: Undergraduate course in computer programming and consent of professor.
Description: Practical digital methods for obtaining steady-state and transient solutions to lumped and distributed mechanical, fluid and thermal problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5103 Advanced Dynamics
Prerequisites: Graduate standing or consent of instructor; ENSC 2123, MAE 3013 and MAE 3724.
Description: This course will address the effects of forces on the motion of a body or system of bodies to solve real-world engineering problems. It will emphasize the tools of analytical dynamics to develop mathematical models that describe the dynamics of particles, rigid bodies, and systems of particles or rigid bodies. The course will also address the formulation of equations of motion for complex mechanical systems and computational methods for solving these equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5113 Diffraction in Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to crystallography and diffraction with an emphasis on X-Ray diffraction, some exposure to Neutron diffraction, radiography and tomography. Applications will focus on mechanical properties measurements. New methods will be surveyed with an emphasis on current research. Same course as MSE 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr
Additional Fees: CEAT GR Consummable Materials fee of $22 applies.

MAE 5123 Advanced Material Removal Processes
Prerequisites: ENSC 3313 and MAE 3123 and graduate standing or consent of instructor.
Description: Understanding the fundamental principles and practice (mechanics and material aspects) of machining and grinding of materials. Historical aspects; physics of metal cutting, mechanics of machining (orthogonal and oblique); shear stress and shear strain in machining, dynamometry; tool materials, tool wear, tool life, and machinability; vibrations in machining; thermal aspects of machining, cutting fluids; economics; surface finish accuracy and surface integrity, and grinding.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5133 Mechanical Behavior of Materials
Prerequisites: ENSC 3313 or equivalent.
Description: A unified approach to the behavior and response of engineering materials to applied loads. Mechanical and metallurgical fundamentals of deformation processes. Spatial scales of atomic physics, micromechanics and continuum mechanics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5143 Tribology
Prerequisites: Graduate standing or consent of instructor.
Description: The principles of tribology. Definition of tribology, contact of solids, surface topography, real area of contact, friction of various materials, basic mechanisms of friction, mechanisms of wear (adhesion, abrasion, fatigue, erosion, and fretting), hardness of solids, frictional heating and surface temperatures, material properties that influence surface interactions, surface roughness measurement, surface integrity residual stresses and subsurface deformation, application of tribology to manufacturing, wear resistant materials, wear-resistant coatings, experimental methods in tribology, surface analytical tools in tribology, scanning tunneling microscopy/atomic force microscopy, wear monitoring and wear prevention, and systems approach to tribology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5153 Precision Engineering I
Prerequisites: Graduate standing or consent of instructor.
Description: An integrated approach to underlying engineering principles governing product and process designs requiring accuracies typically better than 1 part in 106. Design and control of precision machines and instruments, dimensional and surface metrology, scanning probe microscopy, ultra-precision machining and grinding, and precision assembly.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5163 Precision Manufacturing Process
Prerequisites: MAE 3123 or equivalent.
Description: Introduction to precision manufacturing, design principle of precision machine tools and source of errors, diamond turning and milling, grinding, polishing and lapping, sensors for precision manufacturing, precision manufacturing applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5173 Biomimetics in Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Nature has developed processes, techniques, and materials that function optimally from the nanoscale to the macroscale. The goal is to introduce methods and techniques derived from Nature and used to solve engineering and research problems. This course will provide students with the most common nature-derived concepts used in engineering. Relevant techniques will then be applied to each student's research project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5183 Nanostructured Materials
Prerequisites: Graduate standing and basic undergraduate materials science course or equivalent.
Description: Size and shape dependence of material properties at the nanoscale. Interaction, surface energy, functionalization, binding, and immobilization of nanostructures. Top-down and bottom-up nanofabrication, atomic processes and self assembly. Lithography, thin fills, functional coating, Langmuir-Blodgett films, layer-by-layer growth. Properties, applications and synthesis of well-studied building blocks; quantum dots (semiconductor nanocrystals), carbon nanostructures (nanotubes and fullerenes), semiconductor nanowires, metal nanoparticles and nanowires.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5193 Computational Biomechanics and BioRobotics
Prerequisites: Graduate standing or consent of instructor; MATH 2233 and ENSC 2123.
Description: Introduction to human anatomy, skeletal and musculoskeletal modeling, human modeling packages, kinematics and dynamics of human system, posture and motion predictions, digital human modeling, tissue biomechanics, optimization theory and applications in human modeling, rehabilitation robots, exoskeleton, human-robot interaction, and learning-based human-robot control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5213 Engineering Plasticity
Prerequisites: Graduate standing or consent of instructor.
Description: This course will present the fundamentals of the continuum theory of plasticity applicable in analysis and design of materials forming processes. The following topics will be covered: Yielding, Stress and Strain, Isotropic Yield Criteria, Work Principles, Anisotropic Plasticity, Effects of Strain Hardening and Strain-Rate Dependence, Defect Analysis, Effects of Pressure and Sign of Stress State, Plasticity Tests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5223 Mechanics of Bonds
Prerequisites: Graduate standing or consent of instructor.
Description: The course will focus on the principles of mechanics of bond (adhesion) between the materials in relation to the design, fabrication and testing of bonds. Especially, the contents will focus attention to adhesive bonding.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5233 Advanced Fluid Dynamics I
Prerequisites: ENSC 3233.
Description: Introduction to fluid flows. Governing equations for mass, momentum and energy. Exact solutions of Navier-Stokes' equations. Dimensional analysis and similitude. Potential flows. Boundary layer theory. Low Reynolds number flows. Introduction to vorticity dynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5243 Micro Flows
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamentals and simulation of micro flows including governing equation, slip models, shear- and pressure-driven micro flows. Thermal effects in micro scales. Applications; MEMS and micro propulsion. Numerical methods for continuum simulation and atomistic simulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5253 Multiphase Flow
Prerequisites: Graduate standing.
Description: Theory, methods and practical experience for studying complex transient multiphase flows: basic concepts and definition, dynamics of bubbles, drops and rigid particles, gas-liquid transport in ducts, fluid-solid transport in ducts, aerosol and spray systems, foam, fluidization, particle separation systems multiphase flow in porous media, breakup of liquid sheets and jets, modeling, advanced experimental techniques for multiphase flow.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5263 Combustion
Prerequisites: Graduate standing or consent of instructor.
Description: Chemical thermodynamics, chemical kinetics, conservation equations for reacting systems, premixed laminar flames, diffusion flames, turbulent flames, mechanism reduction and chemistry solvers, combustion diagnostics, new combustion technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5273 Advanced Fluid Dynamics II
Prerequisites: MAE 5233.
Description: Application of advanced fundamental concepts and methods to vorticity dynamics, gravity waves, instability, and an introduction to turbulence. Specialty topics (e.g. geophysical flows, compressible flows, biofluids) will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5283 Data Assimiliation in Science and Engineering
Prerequisites: (ENGR 1412 or equivalent course in computer programming and knowledge of scientific computing) and (MAE 3013 or equivalent course in differential equation and engineering mathematics) and (MAE 3403 or equivalent undergraduate course in computational methods).
Description: Data assimilation is a well-established scientific discipline that combines computational models observations. It is geoscience terminology and refers to the estimation of the state of a physical system given a model and measurements. In other words, it is the process of fitting models to data. In engineering fields the terms filtering, estimation, and smoothing are often used. In the last decades data assimilation has gained popularity in many computational disciplines at both universities and research centers. In this course, starting from mathematical preliminaries (e.g., numerical linear algebra, model reduction, optimization techniques, etc), common methods of data assimilation (both sequential and variational methods) are introduced and derived in the context of both variational and estimation theory with emphasis on computational aspects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5303 Advanced Space Propulsion and Power
Prerequisites: MAE 4243 (or equivalent).
Description: Advanced analysis of chemical, nuclear, electric and solar thermal rockets with a focus on solid, liquid and hybrid rocket propulsion. Progression from fundamentals to design and analysis of complete rocket systems, including design case studies. Design, build, test and evaluation of chemical rocket components.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5313 Autopilot Design and Test
Prerequisites: Graduate standing or consent of instructor; MAE 3403 and MAE 3724 and MAE 4053 and MAE 4283.
Description: Basic theory, hardware, and implementation, and test techniques for contemporary autopilot design, with a particular example on unmanned aerial systems. Flight mechanics modeling and simulation, basic sensor modeling and usage, filtering and state estimation, and feedback strategies are discussed. Typical computing hardware platforms and their limitations for autopilots usage are discussed. General purpose computing hardware is extended to field UAV platforms. Validation techniques are introduced, including an introduction to formal methods verification and a more thorough exercise in operational hardware testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5343 Advanced Aero Propulsion and Power
Prerequisites: MAE 4243; Graduate Standing or Consent of Instructor.
Description: Advanced analysis of aircraft engines. Preliminary aerodynamic and structural design of major engine components including inlets, compressors, combustors, turbines, mixers, afterburners, and nozzles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5353 Testing, Control, and Simulation of Thermal Systems
Prerequisites: Graduate standing or consent of instructor; MAE 3524 or equivalent.
Description: This course introduces the usage of computer software for the simulation and experimental testing of thermal systems and their components. Specifications of sensors and test plans based on uncertainty calculation as well as HVAC controls are introduced.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5363 Advanced Analytical Electron Microscopy
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamentals of electron microscopy and the associated characterization techniques; functions of the SEM/TEM and how it works; basic analytical microscopy techniques (imaging, diffraction, EDS, EELS) and data interpretation to develop an understanding of structure-property correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5383 Practical Computational Fluid Dynamics
Prerequisites: Graduate standing or consent of instructor.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Student will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. Same course as MET 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5403 Computer-Aided Analysis and Design
Prerequisites: Undergraduate course in computer programming and consent of professor.
Description: Theory, application and implementation of digital-computer-oriented algorithms for the synthesis, simulation, analysis and design of engineering systems. Advanced FORTRAN methods for optimization, simulation and data analysis. Implementation of these methods uses program libraries, batch processing, remote terminals and graphic display units.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5413 Optimal Control
Prerequisites: MAE 5713 or ECEN 5713.
Description: Optimal control theory for modern systems design. Specification of optimum performance indices. Dynamic programming, calculus of variations and Pontryagin's minimum principle. Iterative numerical techniques for trajectory optimization. Same course as ECEN 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5433 Robotics, Kinematics, Dynamics and Control
Prerequisites: MAE 4053 or ECEN 4413 or consent of instructor.
Description: Kinematic and dynamic analysis of robot manipulators. Inverse kinematics, motion planning and trajectory generation. Industrial practice in robot servo control. Dynamics and control in the presence of constraints. Actuators and sensors. Force sensors and vision systems. Robotic force control and its applications in industry. Passivity based control algorithms. Advanced control techniques for motion and force control. Same course as ECEN 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5463 Nonlinear System Analysis and Control
Prerequisites: MAE 4053 or ECEN 4413.
Description: Failure of superposition of effects; phase-plane analysis; limit-cycles; Lyapunov stability; hyperstability and input-output stability; controllability and observability of nonlinear systems; feedback linearization; robust nonlinear control system design. Same course as ECEN 5463. Previously offered as MAE 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5473 Digital Control Systems
Prerequisites: MAE 4053 or ECEN 4413.
Description: Input output and state space representations of linear discrete-time systems. Approximate methods in discrete-time representation. Stability methods. Controllability, observability, state estimation, and parameter identification. Design and analysis of feedback control system using frequency-domain and state-space methods. Introduction to optimal control. Same course as ECEN 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5483 Advanced Mechatronics Design
Prerequisites: MAE 4733 or similar course and consent of instructor.
Description: Continuation of topics covered in the undergraduate course MAE 4733 Mechatronics Design. Optimizing C programming code for microcontrollers using the assembly language instruction set, RS-232 microcontroller communication protocol, Controller Area Network (CAN) communication protocol plus hands-on CAN bus development boards, advanced topics which could include but are not limited to sensor design, real time operating systems, and advanced communication protocols. Same course as ECEN 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5503 Mechanics of Advanced Composites for Structural Design
Prerequisites: ENSC 2113, ENSC 2143 or consent of instructor.
Description: Basic principles governing the micro-mechanics of a lamina, and the macro-mechanics of a laminate are discussed in detail. Analysis of continuous fiber, short-fiber, and woven-fiber polymer matrix composites. A computer program for an analysis and design of composite laminates is developed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5513 Stochastic Systems
Prerequisites: ECEN 3513 and 4503 or STAT 4033 or MAE 4053 or MAE 4063 or consent of instructor.
Description: Theory and applications involving probability, random variables, functions of random variables, and stochastic processes, including Gaussian and Markov processes. Correlation, power spectral density, and non-stationary random processes. Response of linear systems to stochastic processes. State-space formulation and covariance analysis. Same course as ECEN 5513. Previously offered as MAE 6063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5523 Estimation Theory
Prerequisites: MAE 5513 or ECEN 5513.
Description: Stochastic model development, parameter estimation and state estimation. The linear model, model order determination, least squares, estimation, maximum likelihood estimation, Bayesian estimation. Gaussian random vectors, estimation in linear and Gaussian models, state estimation, the Kalman filter, prediction and smoothing. Same course as ECEN 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5533 Theory of Elasticity
Prerequisites: Graduate standing or consent of instructor; MAE 3324 or equivalent.
Description: Basics of tensor calculus, field equations (strain-displacement, compatibility, equilibrium, and constitutive relation), solution of plane elastrostatics problems in cartesian and polar coordinates, potential function formulation, introduction to 3D problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5543 Modern Materials
Prerequisites: ENSC 3313.
Description: Properties, applications and recent innovations of structural engineering materials. Metals, ceramics, polymers and composites considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5553 Fatigue and Fracture Mechanics
Prerequisites: MAE 4333 or consent of instructor.
Description: The course provides an introduction to the mechanics of fracture of brittle and ductile materials and covers the basics of both linear-elastic fracture mechanics (LEFM) and elastic-plastic fracture mechanics (EPFM). Crack initiation and propagation is studied under quasi-static, dynamic, and cyclic loading conditions. Models are presented for time dependent fracture including creep and fatigue crack growth. Methods to experimentally determine fracture properties, based on relevant ASTM standards, are introduced. Same course as MSE 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5563 Finite Element Methods
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to the finite element method in mechanical engineering. Numerical and mathematical formulations including an introduction to variational methods. Computer applications in solid mechanics, heat transfer and fluid mechanics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5573 Continuum Mechanics
Prerequisites: Graduate standing of consent of instructor.
Description: Principles governing the mechanics of a continuum. Tensor calculus. Strain and kinematics of deformation. Conservation laws, stress and equilibrium. Constitutive equations of elastic, viscoelastic, and plastic solids. Solving boundary value problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5583 Corrosion Engineering
Prerequisites: ENSC 3313 or equivalent.
Description: Modern theory of corrosion and its applications in preventing or controlling corrosion damage economically and safely in service. Same course of MSE 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5593 Viscoelasticity
Prerequisites: Graduate standing or consent of instructor.
Description: Advanced stress analysis and constitutive modelling of time-dependent materials such as polymers or metals near their melting point. Overview of viscoelastic materials and applications. Experimental material characterization and thermodynamic foundation of the constitutive behavior. Time-temperature superposition principle for thermo-rheologically simple materials. Differential and integral formulation of basic rheological models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5603 Stability of Structures
Prerequisites: Graduate standing or consent of instructor.
Description: Stability is a fundamental problem in solid mechanics, which is crucial to the safety of structures against collapse. The theory of stability is of great importance for structural engineering, aerospace engineering, nuclear engineering, etc. Elastic and non-elastic theories of stability will be discussed for structures such as columns, frames, thin-walled beams, plates and shells. Energy methods for discrete and continuous structures will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5633 Advanced Thermal Energy Systems Analysis
Prerequisites: MAE 3524 and MAE 3233; Graduate Standing or Consent of Instructor.
Description: This course will develop the tools required to design, analyze, and improve advanced thermal energy systems. There will be an emphasis on practical understanding of components, system integration, and system design. Some topics included are; improvements to the vapor compression cycle (for refrigeration and heat pump applications); compressor and heat exchanger analysis; heat-driven vapor compression cycles; waste-heat recovery topics including Organic Rankine Cycles (ORC) and expander analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5653 Refrigeration
Prerequisites: MAE 3524; Graduate Standing or Consent of Instructor.
Description: Thermal engineering of refrigeration and heat pump systems, vapor compression systems, absorption refrigeration cycles, cryogenics, compressors, heat exchangers, flow control devices, laboratory simulators and measurements, socio-economics and environmental impact of systems and refrigerants. A general-purpose computer software program is used for analysis and design of several refrigeration systems and components.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5663 Advanced Finite Element Analysis
Prerequisites: MAE 5563 or consent of instructor.
Description: Development of three-dimensional isoparametric solid elements using Lagrange and serendipity family of elements, solution of three-dimensional thermoelasticity problems, linear time dependent problems, variational formulation and computer implementation of structural dynamics analysis using implicitly operators, implementation of three-dimensional diffusion and heat transfer analysis, solution of a nonlinear system of equations, and finite element analysis using commercial software packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5673 Mechanics of Fracture, Contact and Friction
Prerequisites: Graduate standing or consent of instructor.
Description: Rigorous derivation and presentation of the equations of fracture mechanics, contact and friction. Equations of solid mechanics and mathematical preliminaries, elastic stress field near a crack tip, stress intensity factors, fracture toughness, Griffith solution and J-integral, elastic-plastic fracture, fatigue, Dugdale model and cohesive zone laws, experimental techniques in fracture mechanics, contact mechanics, friction modeling. More advanced topics and projects will be chosen from interfacial crack growth, subsonic and intersonic dynamic fracture, rate- and state-dependent friction laws, fracture and friction at the small scales (nanomechanics), and finite-element analysis using commercial packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5683 Thermodynamics and Thermostatistics of Materials
Prerequisites: ENSC 3313 or equivalent.
Description: Notions of energy, entropy, equilibrium, macrostates, and microstates and their relation to material processes and properties. Deriving material properties from equations of state: Maxwell relations. Statistical thermodynamics: predicting material properties from microstates. Partition function. Phase transformations. Thermodynamics of surfaces and defects. Electrochemistry. Same course as MSE 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5693 Phase Transformations in Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Principles of phase transformations in material. Structure of materials, phase diagrams, diffusion, solidification, and diffusional and diffusionless transformations will be covered. Recent developments in materials research relevant to phase transformations. Same course as MSE 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5703 Optimization Applications
Prerequisites: Graduate standing.
Description: A survey of various methods of unconstrained and constrained linear and non-linear optimization. Applications of these methodologies using hand-worked examples and available software packages. Intended for engineering and science students. Same course as CHE 5703, ECEN 5703 & IEM 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5713 Linear Systems
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to the fundamental theory of finite-dimensional linear systems with emphasis on the state-space representation. Mathematical representations of systems; linear dynamic solutions; controllability, observability, and stability; linearization and realization theory; and state feedback and state observer. Same course as ECEN 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5733 Neural Networks
Prerequisites: Graduate standing.
Description: Introduction to mathematical analysis of networks and learning rules, and on the application of neural networks to certain engineering problems image and signal processing and control systems. Same course as CHE 5733 & ECEN 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5753 Advanced Experimental Mechanics of Solids
Prerequisites: MAE 5573 or consent of instructor.
Description: Application of advanced experimental mechanics techniques to investigate and characterize response of solid materials. Course material includes use of at-a-point and full-field techniques, characterizing rate- and time-dependent material response, and techniques for finite deformation.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5763 Wave Motion and Vibration of Continuous Media
Prerequisites: MAE 5573 or consent of instructor.
Description: Fundamentals of the formulation and solution of the problem of wave motion and vibration in continuous media. Propagation of stress waves and the implication of high-rate loading on mechanics problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5773 Intelligent Systems
Prerequisites: MAE 5733 or ECEN 5733.
Description: Introduction to the state-of-the art intelligent control and system successfully deployed to industrial and defense applications. Emerging intelligent algorithms (e.g., bottom-up, top-down, seminotics); reinforcement learning and hybrid systems; and case studies and design projects. Same course as ECEN 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5783 Principles of Autonomous Decision Making
Description: This course will provide a detailed overview of the fundamental principles of autonomous decision making and their applications to various engineering and computer-science domains. This course will survey popular and emerging techniques in reasoning and perception as well as optimal decision making methodologies. Learning and reasoning paradigms include support vector machines, Gaussian Processes, and Bayesian Nonparametric Learning. Optimal decision making techniques include Markov Decision Processes, Planning and reinforcement learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5803 Advanced Thermodynamics I
Prerequisites: Graduate standing or consent of instructor.
Description: A rigorous examination of the fundamental principles of engineering thermodynamics to include the First Law, Second Law and availability, thermodynamics equations of state for single phase and multi-phase systems, chemically reactive systems, and equilibrium. A general purpose computer software program is used for examination of case studies of thermodynamic processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5813 Intermediate Heat Transfer
Prerequisites: MAE 3233 or equivalent.
Description: Continuation of the topics covered in the undergraduate heat transfer course (MAE 3233) with the addition of mass transfer. This course covers problems of heat and mass transfer in greater depth and complexity than is done in the undergraduate heat transfer course and incorporates the subjects that are not included or are treated lightly in that course. Analysis will be given greater emphasis than the use of correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5823 Radiation Heat Transfer
Prerequisites: MAE 3233 or equivalent and graduate standing or consent of instructor.
Description: The mechanism of the transfer of energy by thermal radiation; radiant properties of materials, energy transfer prediction methods and solar energy topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5833 Transient Simulation of Thermal Systems
Prerequisites: Graduate Standing or consent of instructor.
Description: This course provides an introduction to the transient simulation of building thermal systems. Learned material is reinforced in lab sections as well as in a semester project.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5843 Conduction Heat Transfer
Prerequisites: ENSC 3233.
Description: Advanced heat transfer analysis and design, with primary emphasis on conduction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5853 Computational Heat Transfer
Prerequisites: MAE 3233, graduate standing, knowledge of FORTRAN.
Description: Computational techniques for the solution of two-dimensional heat transfer, fluid flow and related processes in problems of practical interest. A general-purpose computer program used to demonstrate the capabilities of the numerical method through a wide variety of engineering problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5863 Building Heat Transfer and Simulation
Prerequisites: ENSC 3233 and MAE 3524 and MAE 3233; Graduate Standing or Consent of Instructor.
Description: Conduction, convection and radiation heat transfer applied to building thermal simulation. Solar radiation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5873 Advanced Indoor Environmental Systems
Prerequisites: MAE 4703.
Description: Heating, air-conditioning, ventilation and refrigeration systems. System and component analysis, design and simulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5913 Advanced Aerodynamics
Prerequisites: ENSC 3233 or equivalent.
Description: Aerodynamics of the subsonic, transonic, supersonic, and hypersonic flow regimes. Derivation of governing equations and fundamental principles. Analytical and computational analysis methods. Recent developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5923 Guidance and Control of Aerospace Vehicles
Prerequisites: Graduate standing or consent of instructor.
Description: Navigation, guidance and attitude control of aircraft, launch vehicles and spacecraft. Inertial navigation mechanizations and error analysis. Stability augmentation systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5933 Aeroelasticity
Prerequisites: Graduate standing or consent of instructor.
Description: Interaction between fluid dynamic, inertial and elastic forces. Development of analytical and computational methods for analysis. Application to a broad range of problems in engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5943 Unsteady Aerodynamics and Aeroacoustics
Prerequisites: ENSC 3233 or equivalent.
Description: Development of governing fluid dynamic equations for unsteady flows; linear unsteady aerodynamics for isolated and cascaded lifting surfaces; acoustics in moving media; three-dimensional duct acoustics; sound generation from isolated airfoils, cascaded airfoils, rotor-stator interactions, multiple pure-tone sources, propellers and jets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5953 Aerospace Systems Engineering
Prerequisites: MAE 3253 or equivalent.
Description: Aircraft and spacecraft design from a systems perspective, covering basic systems engineering, cost and weight estimation, basic vehicle performance and trade study analysis, safety and reliability, lifecycle analysis, subsystem integration, risk analysis and management, system realization, and multi-disciplinary optimization (MDO). Additional topics include requirements identification and development, and program planning and control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5963 Unmanned Aerial Systems Design and Analysis
Prerequisites: Graduate standing or permission of instructor; MAE 5313.
Description: This course covers concepts related to design and operation of unmanned systems focusing on unmanned aircraft, including remotely piloted and autonomous vehicles. History of unmanned systems. Design of unmanned air systems including concepts of operations, communications, payloads, control and navigation, multiple air vehicle architectures, cooperative control and ISR. Design requirements for unmanned versus manned vehicles. Operation in conflicted airspace. Aspects of other unmanned systems, including ground, surface, underwater and space vehicles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5973 Unmanned Aerial Systems Propulsion
Prerequisites: Graduate standing or permission of instructor.
Description: This course will cover propulsion topics used on Unmanned Aerial Systems (UAS). These will include: Historical perspective on UAS propulsion systems; Classification of propulsion types; Propulsion requirements for UAV; Propeller performance and design; Internal combustion engine; Heavy-Fuel ICE; ICE Muffler design; Electric motor; Hybrid-Electric engine; Fuel Cell engine; Flapping Wing propulsion; Jet engine; Propulsion system integration and installation effects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5983 Aircraft Certification and Test
Prerequisites: Graduate standing or consent of instructor.
Description: Exploration of the major engineering processes for airworthiness certification of manned and unmanned aircraft. Assessment of civil and military airworthiness regulations and their impact on certification program management and testing. Development of foundational concepts and processes for laboratory, ground and flight testing for airworthiness.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5993 Microstructural Mechanics
Prerequisites: Graduate standing or consent of instructor.
Description: Build a framework to understand the various microstructures of materials with their respective roles in controlling mechanical properties. Grain size, orientation, surface facets, compositional gradients, and second or multiple phases, in combination with the three-dimensional arrangement of the various types of imperfections, together constitute the microstructure of a material. An emphasis will be placed on new research areas and exposure to methods for controlling and probing microstructures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6000 Doctoral Dissertation
Prerequisites: Admission to MAE PhD program and consent of the student's dissertation adviser.
Description: Independent research under the direct supervision of the student's doctoral dissertation adviser. Offered for variable credit, 1-15 credit hours, maximum of 42 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 6010 Advanced Study
Prerequisites: Approval of the student's advisory committee.
Description: Study and investigation under the supervision of a member of the faculty along lines of interest well advanced of and supported by the 5000-series courses. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 6123 Advanced Processing of Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Rationale for non-traditional machining; various non-traditional machining processes, including electro-discharge machining, electro-chemical machining, plasma arc-, microwave-, and laser assisted processing, waterjet (abrasive) cutting, ultrasonic machining, chemical machining, thermal assisted processing and electron beam machining.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6133 Surface Mechanics
Prerequisites: Consent of instructor.
Description: Models and solutions basic to surface studies. Equations of continuum mechanics, thermal field solutions at sliding interfaces, elasticity, plasticity. Applications of solution techniques to surface, surface layer and interface phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6143 Thermal Analysis of Manufacturing Processes
Prerequisites: Graduate standing and consent of instructor.
Description: Thermal analysis of various moving heat source problems encountered in a variety of manufacturing processes, including machining, grinding, polishing, casting, welding, energy beam cutting and other tribological applications such as meshing of gears, cams, bearings. Analysis of both transient and steady state conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6233 Turbulent Fluid Dynamics
Prerequisites: MAE 5233.
Description: Isotropic turbulence, turbulent wakes and jets, bound turbulent shear flows, transition, hydrodynamic stability and integral calculation methods for turbulent boundary layers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6263 Computational Fluid Dynamics
Prerequisites: Graduate standing; MAE 5093 and MAE 5233.
Description: Numerical method and computational tool development for solving canonical partial differential equations and incompressible Navier-stokes equations employing both finite difference and finite volume algorithms. Strategies for improved pressure-velocity coupling and implicit time-stepping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6293 Geophysical Fluid Dynamics
Prerequisites: MAE 5233.
Description: Development of governing fluid dynamic equations for high-Reynolds number flows, including their stability, their waves, and the influence of rotating and stratification as applied to geophysical and astro-physical fluid dynamics. Examples of problems studies include vortex dynamics in planetary atmospheres and protoplanetary disks, jet streams, and waves (Rossby, Poincare, inertial, internal gravity, and Kelvin) in the ocean and atmosphere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6313 Atmospheric Flight Control
Prerequisites: (MAE 4283 and MAE 4053) or (MAE/ECEN 5713 or MAE/ECEN 5473 or MAE 5923) or equivalent. Graduate standing or consent of instructor.
Description: Application of modern multivariable control and estimation techniques to aerospace flight vehicles. Fundamental tradeoffs between controller complexity and performance requirements, and translation of handing quality specifications into requirements for control system designs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6423 System Identification
Prerequisites: MAE 5473 or MAE 5713 or ECEN 5473 or ECEN 5713.
Description: Linear and nonlinear system modeling of random systems. Models of linear time-invariant systems, nonparametric methods and preliminary model development, parameter estimation methods, convergence and consistency, asymptotic distributions of parameter estimates, nonlinear modeling. Same course as ECEN 6423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6453 Adaptive Control
Prerequisites: MAE 5473 or ECEN 5473 or ECEN 5713 or MAE 5713.
Description: Analysis and design of control techniques which modify their performance to adapt to changes in system operation. Review of systems analysis techniques, including state variable representations, linearization, discretization, covariance analysis, stability, and linear quadratic gaussian design. On-line parameter estimation, model reference adaptive systems, self-tuning regulators, stable adaptive systems. Same course as ECEN 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6463 Advances in Nonlinear Control
Prerequisites: MAE 5463 or ECEN 5463.
Description: Introduction to vector fields and Lie algebra: controllability and observability of nonlinear systems; local decompositions; input-output and state-space representation on nonlinear systems; feedback linearization; controlled invariance and distribution; control of Hamiltonian systems. Same course as ECEN 6463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6483 Robust Multivariate Control Systems
Prerequisites: MAE 5713 or ECEN 5713.
Description: Introduction to multivariable systems: SISO robustness vs. MIMO robustness; multivariable system poles and zeros; MIMO transfer functions; multivariable frequency response analysis; multivariable Nyquist theorem; performance specifications; stability of feedback systems; linear fractional transformations (LFT's); parameterization of all stabilizing controllers; structured singular value; algebraic ricatti equations; H2 optimal control; H-infinity controller design. Same course as ECEN 6483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6843 Convection Heat Transfer
Prerequisites: MAE 5233 or equivalent.
Description: Advanced convective heat transfer in laminar and turbulent flows over external surfaces and inside channels. Heat transfer at high velocities, free convection boundary layers, and mass transfer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

Mechanical Engineering Tech (MET)

MET 1121 Technical Graphics
Prerequisites: A grade of "C" or better in ENGR 1332 or ENGR 1322.
Description: Visualization of 3-D objects, sketching, manual drafting of engineering drawings to ANSI standards, interpreting typical industrial drawings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 1123 Technical Drawing and Basic CAD
Description: Sketching, manual drafting and CAD generation of engineering drawings to ANSI standards. Interpreting typical industrial drawings. Students with two years high school or one year practical ANSI drafting/CAD may substitute an advanced course in mechanical engineering technology with consent of their advisers. Previously offered as GENT 1153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2103 Industrial Materials
Prerequisites: CHEM 1314 or CHEM 1215 or CHEM 1414.
Description: A survey of the properties, characteristics and applications of metals, polymers, ceramics and other industrial materials. Terminology, concepts and principles involved in material selection, specification and processing. Laboratory activities include data collection and report generation, determination of material properties, and evaluation of material characteristics. Previously offered as GENT 1103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2223 Geometric Dimensioning and Tolerancing with Computer-Aided Design
Prerequisites: A grade of “C” or better in (GENT 1153 or MET 1123) or a grade of “C” or better in (ENGR 1332 or equivalent) and MET 1121 (can be concurrent enrollment in MET 1121).
Description: Theory and application of Geometric Dimensioning and Tolerancing (GD&T) technique. Creation and analysis of tolerances for manufacturing with advanced computer-aided design (CAD) and engineering drawings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2313 Fundamentals of Hydraulic Fluid Power
Prerequisites: A grade of "C" or better in ENSC 2113 or GENT 2323.
Description: Basic fluid power concepts. Standard hydraulic symbols, component design and application, fluid power system considerations, design, and operation. Previously offered as MPT 2313.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3003 Dynamics
Prerequisites: A grade of "C" or better in GENT 2323 or ENSC 2113.
Description: Plane motion of particles and rigid bodies. Force-acceleration, work-energy, and impulse-momentum principles. Graphical analysis, mechanisms and vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3113 Basic Instrumentation
Prerequisites: A grade of "C" or better in MATH 2123 or MATH 2144, and GENT 3323 or ENSC 2143, and ENGR 2421.
Description: Data analysis. Theory, operational characteristics and application of transducers for measurement of strain, force, velocity, acceleration, displacement, time, frequency, temperature, pressure. Previously offered as MPT 3114.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3313 Applied Fluid Mechanics
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144), (PHYS 1114 or PHYS 2014), and (GENT 2323 or ENSC 2113).
Description: Practical analysis of fluid systems including static forces, the Bernoulli and general energy equations, laminar and turbulent flows, measurements of flow and pressure, lift and drag, pumps, and fans. Previously offered as MPT 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3343 Metallurgy and Polymers
Prerequisites: A grade of "C" or better in (CHEM 1215 or CHEM 1314 or CHEM 1414 or CHEM 1515).
Description: Provides an overview of common ferrous and nonferrous metals, metal crystal structures, grain development in metal, heat treating practices, and how these aspects impact a material’s characteristics. Polymer properties, an introduction to thermoplastics and thermosets, physical and mechanical properties, polymer structure and arrangement, manufacturing methods and common additives. Previously offered as MFGT 3343.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 0 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3433 Basic Thermodynamics
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144) and (PHYS 1114 or PHYS 2014).
Description: Basic scientific principles of energy and the behavior of substances as related to engines and systems. Gas laws, vapor cycles, and power cycles. Previously offered as MPT 3433 and GENT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3453 Heat Transfer
Prerequisites: A grade of "C" or better in (MATH 2144 or MATH 2123 and (PHYS 2014 or PHYS 1114).
Description: Conduction, convection, radiation, condensation, and boiling heat transfer. Heat exchangers. Prediction of heat transfer rates. Retardation and enhancement of heat transfer. Course previously offered as MPT 4433 and GENT 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3543 Manufacturing Processes
Prerequisites: Grade of "C" or better in (MET 1123 or ENG 1332) and (MET 3343 or ENSC 3313).
Description: Manufacturing processes used to transform new materials including metals and non-metals into finished goods. Traditional and nontraditional manufacturing processes. Introduction to CAD/CAM. Basic process selection. Meteorology and measurement fundamentals. Previously offered as GENT 1223 and MET 1213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3803 Fundamentals of Mechatronics
Prerequisites: Grade of "C" or better in EET 3104 or EET 2635.
Description: Fundamentals of mechatronic systems and components. Different modelling approaches used for mechatronics systems, sensors and actuators, data acquisition and interfacing, signal conditioning, and PLCs. Previously offered as GENT 3503. Same course as EET 3803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4003 Machine Elements
Prerequisites: A grade of "C" or better in (MATH 2133 or MATH 2153) and (GENT 3323 or ENSC 2143).
Description: Applications of statics and strength to the design of machine components. Problems of choosing materials, impact and fatigue loading. May not be used for degree credit with MET 4003 or BAE 4224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4023 Advanced Mechanical Computer-Aided Design
Prerequisites: A grade of "C" or better in MET 1123 or ENGR 1332 or equivalent.
Description: Computer-aided design methodologies and processes. State-of-the-art technologies and methodologies in 3D modeling and design processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4033 Applied Vibration and Acoustics
Prerequisites: A grade of "C" or better in GENT 3323 or ENSC 2143.
Description: Free and forced vibration of mechanical systems with an emphasis on practical applications. Introduction to sound wave generation and propagation. Mechanical system design methods for noise and vibration mitigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4050 Advanced Mechanical Design
Prerequisites: Junior standing and consent of instructor.
Description: Special problems in mechanical engineering technology. Previously offered as MFGT 4050 and MPT 4050. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MET 4103 Senior Design I
Prerequisites: Grade of "C" or better in (MET 1123 or MET 1121) and ENSC 2143 and Senior Standing.
Description: First part of a two semester sequence for the MET capstone project. Focuses on finding and beginning a practical engineering design project. Includes selected topics in engineering design, project management, ethics, and intellectual property.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4113 Practical Computational Fluid Dynamics
Prerequisites: A grade of "C" or better in MET 3313 or ENSC 3233 or MAE 3333.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Students will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. May not be used for degree credit with MET 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4123 Senior Design II
Prerequisites: A grade of "C" or better in MET 4103 and ENGL 3323. Must be taken in the immediately subsequent semester after completing MET 4103.
Description: Second part of a two semester sequence for the MET capstone project. Finishes work on the practical engineering design project begun in MET 4103. Includes selected topics in engineering design, project management, ethics, and intellectual property.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4133 Interdisciplinary Design I
Prerequisites: A grade of "C" or better in (MET 1223 or MET 2223) and MET 4003 and permission of the instructor.
Description: First part of an interdisciplinary capstone project for engineering technology seniors. Conduct mechanical design, prototype development, and project management on practical engineering design project. Same course as MET 4103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4143 Interdisciplinary Design II
Prerequisites: A grade of "C" or better in (MET 1223 or MET 2223) and MET 4003 and permission of the instructor.
Description: Second part of an interdisciplinary capstone project for engineering technology seniors. Conduct mechanical design, prototype development, and project management on practical engineering design project. Same course as MET 4123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4173 Additive Manufacturing: Materials, Methods and Applications
Prerequisites: Junior or higher standing.
Description: Theory and practice of additive manufacturing, materials and their applications in various fields. Discuss their applications in product development, data visualization, rapid prototyping, and specialized manufacturing, with special emphasis on direct digital manufacturing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4203 Finite Element Methods
Prerequisites: A grade of "C" or better in GENT 3323 or ENSC 2143.
Description: Application of Finite Element Methods to machine component design. Problems involving stress, strain, temperature and vibration will be solved using state of the art Finite Element Software. May not be used for degree credit with MET 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4223 Geometric Dimensioning and Tolerancing
Prerequisites: A grade of "C" or better in MET 1123 or ENGR 1332 or equivalent.
Description: Theory and Application of Geometric Dimensioning and Tolerancing (GD&T) technique based on ASME Y14.5. Creation, analysis, and inspection of tolerances for manufacturing. Previously offered as MET 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4713 Internal Ballistics
Prerequisites: A grade of "C" or better in (ENSC 2123 or MET 3003) and ENSC 2143 and (ENSC 3233 or MET 3313).
Description: This course is about launching projectiles. Course topics include projectile launching systems, solid propellant combustion, design and manufacturing of projectiles and ammunition, internal ballistic models, design and manufacturing of the barrel, structural dynamics of the barrel, dynamics of guns, firing mechanisms and fire-control systems, SAAMI Standards, and project. May not be used for degree credit with MET 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4723 External Ballistics
Prerequisites: A grade of "C" or better in (ENSC 2123 or MET 3003) and (ENSC 3233 or MAE 3333 or MET 3313).
Description: This course focuses on the motion of a projectile in the air. Course topics include vacuum trajectory, aiming principles and devices, aerodynamic forces and moments, ballistic coefficient, flat-tire point-mass trajectory, weather, Coriolis effects, gyroscopic effect, point-mass trajectory, pitching and yawing motion, measurement of projectile speed and environmental conditions, long-range shooting, and project. May not be used for degree credit with MET 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4733 Terminal Ballistics and Armor
Prerequisites: Grade of "C" or better in (MET 3003 or ENSC 2123) and permission of the instructor.
Description: Practical applications of dynamics theories to the mechanical behavior of projectiles and targets at impact. Structural and body armor system design, test, and analyses. May not be used for degree credit with MET 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4803 Mechatronic System Design
Prerequisites: Grade of “C” or better in GENT 3123 and MET 3803 (can be concurrent enrollment in GENT 3123).
Description: Modelling of mechanical, electrical, and hydraulic components. Feedback control systems, electro-hydraulic drives, electrical drives, and microcontroller programming. Previously offered as GENT 4503. Same course as EET 4803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4883 Tool Design
Prerequisites: A grade of "C" or better in MET 2213 and MET 3343.
Description: Basic design and development of special tools for processing or manufacturing engineering materials. Design and specification and inspection tools using appropriate techniques of engineering graphics and analysis. Previously offered as MFGT 4883.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4953 Industrial Assessment and Improvement
Prerequisites: Junior or higher standing.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 4953 or IEM 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4993 Mechanical Engineering Technology Practice
Prerequisites: Junior standing and consent of department head.
Description: Supervised industrial experience in mechanical engineering technology practice with minimal continual duration of eight weeks. Comprehensive journal, written report, and oral presentation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5113 Practical Computational Fluid Dynamics
Prerequisites: Graduate standing.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Students will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. May not be used for degree credit with MET 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5203 Finite Element Methods
Description: Application of Finite Element Methods to machine component design. Problems involving stress, strain, temperature and vibration will be solved using state of the art Finite Element Software. May not be used for degree credit with MET 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5713 Internal Ballistics
Prerequisites: Graduate standing.
Description: This course is about launching projectiles. Course topics include projectile launching systems, solid propellant combustion, design and manufacturing of projectiles and ammunition, internal ballistic models, design and manufacturing of the barrel, structural dynamics of the barrel, dynamics of guns, firing mechanisms and fire-control systems, SAAMI Standards, and project. May not be used for degree credit with MET 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5723 External Ballistics
Prerequisites: Graduate standing.
Description: This course focuses on the motion of a projectile in the air. Course topics include the vacuum trajectory, aiming principles and devices, aerodynamic forces and moments, ballistic coefficient, flat-tire point-mass trajectory, weather, Coriolis effects, gyroscopic effect, point-mass trajectory, pitching and yawing motion, measurement of projectile speed and environmental conditions, long-range shooting, and project. May not be used for degree credit with MET 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5733 Terminal Ballistics and Armor
Prerequisites: Graduate standing.
Description: Practical applications of dynamics theories to the mechanical behavior of projectiles and targets at impact. Structural and body armor system design, test, and analyses. May not be used for degree credit with MET 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

Mechatronics and Robotics (MERO)

MERO 3373 Programmable Logic Controller Fundamentals
Prerequisites: "C" or better in (EET 2544 or MERO 2544).
Description: The course will introduce students with fundamentals of programming logic controllers, sensors and actuaors interfacing and control using Ladder logic programming. Previously offered as EET 3373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 4213 Industrial Robots
Prerequisites: ("C" or better in ENSC 2123 or MET 3003) and (MATH 3263 or EET 3423).
Description: This is an introductory course on robotics. The course introduces technology students to the dynamics and kinematics of industrial robots.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 4833 Senior Design
Prerequisites: "C" or better in EET 2633 and (EET 3803 or MET 3803), and MET 4003.
Description: The course introduces students to the industrial design process in the area of mechatronics and robotics. The students will work in teams to engage in the design and development of industrial projects.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

MERO 4843 Senior Design II
Prerequisites: "C" or better in MERO 4833.
Description: This course is the second semester of the Senior Design Course. The students will be introduced to the industrial design process in the area of mechatronics and robotics.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

MERO 5000 Thesis Research
Prerequisites: Consent of instructor.
Description: Methods used in research and thesis writing. Same course as FSEP 5000. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MERO 5060 Emerging Topics in Engineering Technology
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics normally not included in existing MSET program. Repeat credit may be earned with different course subtitles assigned. Same course as FSEP 5060. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5070 Directed Studies
Prerequisites: Consent of instructor.
Description: Individual report topics in processes, equipment, experiments, literature search, theory, computer use or combinations or these. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours. Same as FSEP 5990.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MERO 5113 Mechatronic Systems I
Prerequisites: Consent of instructor.
Description: Applications of mechatronics, basic building blocks of mechatronics systems, electronic components, mechanical components, interface between electronic and mechanical components, and considerations of mechatronics system design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5123 Mechatronic Systems II
Prerequisites: MERO 5113 or equivalent.
Description: Modeling of mechanical, electrical, and hydraulic components and robotic manipulators. Mechatronic control systems design, electro-hydraulic drives, electrical drives, robotic manipulator and intelligent control design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5133 Mechatronic System Hardware and Software Integration
Prerequisites: MERO 5113.
Description: This course offers a comprehensive foundation for computer-based analysis of signals, digital and analog communication to support mechatronic application and troubleshooting. Various computing tools for mechatronic systems development such as MATLAB, LABVIEW, and ROS, will be introduced with a focus on software and hardware integration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5213 Introduction to Robot Dynamics and Kinematics
Prerequisites: MERO 5113.
Description: This is an introductory course on robotics. The course introduces technology students with the modeling of robotics manulators. Dynamics and kinematics of industrial robots. Sensing and actuation systems used in the industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5303 Feedback Control Systems for Mechatronic Systems
Prerequisites: Graduate standing or instructor permission.
Description: This course introduces mechatronic system modeling, feedback control, time and frequency domain analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5313 Linear Control Systems for Mechatronics
Prerequisites: MERO 5113.
Description: The course is an application specific course. Applications of feedback control in mechatronics, mathematical models of mechatronics systems and components, time-domain analysis, and stability, and state-variable models of feedback systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5323 Intelligent Control of Mechatronic Systems
Prerequisites: MERO 5123.
Description: The course introduces students with applications machine intelligence for control of mechatronic systems. Topics covered are neural network control, fuzzy logic control, and other evolutionary control approaches in mechatronics. The course will also introduce machine vision and image processing for mechatronic applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5333 Learning-Based Control for Mechatronics and Robotics
Prerequisites: Graduate standing or instructor permission.
Description: The goal of this course is to give the students an introduction to a variety of intelligent control techniques and their applications in mechatronics and robotics systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5413 Robotic Underwater Vehicles
Prerequisites: MERO 5213 or consent of instructor.
Description: Analyze the current design of a robotic underwater vehicle and contribute a substantial design improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5423 Engineering Acoustics
Prerequisites: Graduate standing or consent of instructor.
Description: A first course in engineering acoustics dealing with the nature of sound. A mathematical basis for the analysis of sound is progressively developed beginning with first principles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5433 Industrial Noise Control
Prerequisites: MERO 5423 or MAE 5083.
Description: Design and analysis of industrial noise creation and the methods of attenuation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5513 Electrohydraulics
Prerequisites: Graduate standing, department permission required or consent of instructor.
Description: Proportional electrohydraulic control valves, servo valves, pressure transducers, position sensors, motion control of hydraulic cylinders, synchronization of two cylinders, and control of press circuits.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 5523 Electropneumatics
Prerequisites: Graduate standing, department permission required or consent of instructor.
Description: Electronic components for pneumatic systems, sensor switches, ladder logic diagram, programmable logic controller, and sequence control.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 5613 Smart Manufacturing for Mechatronics
Description: The course introduces the basic concepts, applications, and current advancements of SMART manufacturing in process industries. This course also shows overview of new technologies, such as Industry 4.0, Industrial Internet, manufacturing based on cyber-physical system (CPS), cloud computing, Internet of Things (IoT), big data analytics, artificial intelligence (AI), and digital twins, etc. Digital twin (DT) is introduced as a pragmatic way for the cyber-physical fusion. It helps to develop a smarter manufacturing system with higher efficiency and reliability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5633 Multiphysics Computational Modeling and Simulation
Prerequisites: Graduate standing or consent of instructor.
Description: The course will introduce the basic concepts of computation through modeling and simulation that are increasingly being used by designers, architects, planners, and engineers to shorten design cycles, innovate new products, and evaluate designs and simulate the impacts of alternative approaches. Students will use COMSOL® Multiphysics, a commercially available finite-element modeling software, to explore a range of programming and modeling concepts while acquiring those skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5713 Advanced CAD for Electro-Mechanical Systems
Description: Advanced computer-aided design methodologies and processes for mechatronic system. Design methodologies on electronic, mechanical components, and whole system will be taught using state-of-the-art technologies and modules in CAD system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5723 Mechanism Design with CAD
Prerequisites: Consent of instructor.
Description: Mechanism design of robotic and mechatronic components and systems. Kinematic and kinetic studies using analysis module in a CAD program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5733 Advanced Vibration for Electro-Mechanical Systems
Prerequisites: Consent of instructor.
Description: Analysis, modeling and control of electro-mechanical systems vibrations with an emphasis on practical applications. Mechanical system design methods for noise and vibration mitigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

Microbiology (MICR)

MICR 1211 First Year Microbiology Laboratory Experience
Prerequisites: MCMB major and concurrent enrollment in A&S 1111.
Description: This laboratory course is designed for First Year majors to experience microbiology in parallel with A&S 1111. Students will apply pure culture technique to obtain and characterize environmental isolates. Students also will learn light microscopy skills, anaerobic culture technique, and molecular biology skills.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 1513 Inquiry-Based Biology
Description: Directed inquiry and hands-on study of biological principles. Restricted to elementary education majors or related fields as model course to learn and teach science.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 2123 Introduction to Microbiology
Prerequisites: Grade of "C" or better in BIOL 1114 or (BIOL 1113 and BIOL 1111) and either CHEM 1215 or CHEM 1314 or CHEM 1414 with a grade of "C" or better or concurrent enrollment in one.
Description: General principles of the biology of microorganisms, including bacteria, viruses, algae, fungi, protozoa and archaea. Course previously offered as MICR 2125.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 2132 Introduction to Microbiology Laboratory
Prerequisites: MICR 2123 or concurrent enrollment.
Description: Laboratory safety, aseptic technique, microscopy, staining and culture techniques, collection of microbial samples, isolation and identification of microorganisms, microbial growth and basic principles of metabolism, environmental microbiology, other discipline specific laboratory skills.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 2153 Emerging Infectious Agents (N)
Description: Overview of pandemics and plagues that have impacted human health. Course covers the historical aspects of how pandemics arose, how society was impacted and how science, medicine, and society responded to the outbreaks. Previously offered as MICR 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 2890 Honors Experience in Microbiology
Prerequisites: Honors Program participation and concurrent enrollment in a designated MICR course.
Description: A supplemental Honors experience in Microbiology to partner concurrently with designated MICR 2123 and/or MICR 2132 course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 3033 Cell and Molecular Biology
Prerequisites: (MICR 2123 with "C" or better) or (PBIO 1404 or BIOL 1604 and CHEM 1225 or CHEM 1414 or CHEM 1515 or equivalent with a grade of "C" or better).
Description: The cell concept and cell morphology, cell macromolecules, organelles, enzymes, energetics, movement of water and materials across membranes, influence of external environment, cellular synthesis, growth and maintenance, control and integration of function, replication, differentiation, origin, and evolution of cells. Course previously offered as CLML 3014, BIOL 3014, and BISC 3014.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3053 Synthetic Biology
Prerequisites: BIOL 1113 and CHEM 1515
Description: Engineering of living systems at the molecular, cellular, and organismal levels: Origin of cellular life; reading and writing DNA; enzyme evolution; metabolic engineering. Applications to current and future biotechnologies in agriculture and medicine: Food and drug synthesis; biofuels; vaccines. This cross-listed course is designed to satisfy upper division elective requirements for students majoring in biochemistry or microbiology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3103 Microbes: Friends or Foes (N)
Description: Explores the impact of microorganisms on human life, the environment, and world history. This course is designed for non-science majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 3143 Medical Mycology
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Examination of fungi as animal pathogens; laboratory techniques used in the identification of human and animal pathogens, and differentiation from common contaminants.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 3154 Food Microbiology
Prerequisites: Minimum grade of "C" in (MICR 2123 and MICR 2132) and (CHEM 3013 or CHEM 3053).
Description: Relationship of microorganisms to food manufacture and preservation, to food spoilage and microbial food poisoning and to various aspects of primary food production. Same course as FDSC 3154. Course previously offered as ANSI 3154.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 3162 Synthetic Biology Laboratory Course
Prerequisites: BIOL 1113 and CHEM 1515
Description: Computer and laboratory exercises to introduce students with a wide range of biology experience to the practical principles of synthetic biology. Students learn the design of genetic circuits and CRISPR-Cas systems and create & test these designs in the laboratory using industry-standard molecular biology techniques. Same course as BIOC 3162. Students are strongly encouraged to co-enroll in BIOC/MICR3153 using the appropriate prefix according to their major.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 3213 My Genome: The DNA Revolution and what it means for you (N)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 3223 Advanced Microbiology
Prerequisites: Concurrent enrollment or completion of CHEM 3013 or CHEM 3053 and minimum grade of "C" in MICR 2123 and MICR 2132.
Description: Subcellular structure and function of microorganisms. Synthesis, translocation, and metabolism of cellular macromolecular constituents. Substrate transport and metabolism. Course previously offered as MICR 3224 and MICR 4224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3253 Immunology
Prerequisites: MICR 2123 and MICR 2132 and MICR 3033 or BIOC 3653 or BIOC 3713.
Description: Vertebrate host's ability to defend itself against foreign intrusion. Chemistry and biology of the acquired immune response. Course previously offered as MICR 3254 and CLML 3254.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3333 Science Writing for a Broad Audience
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Students will write three documents and will review texts on related topics written by other students in the course. The scientific topics for these texts will be selected by the students. Each of the three texts will be designed for a different audience: undergraduate students in the same major; high school students, and the general public. These texts will illustrate the scientific inquiry process, scientific methods, results and interpretation of scientific evidence, and relevance to society. Students will receive instructions on how to write, revise, and review these texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1414 or CHEM 1515.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer progression/diagnosis, cancer treatments, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers; also, for cancer patients/relatives/caregivers, as well as for those interested in knowledge of cancer. Same course as PHYS 3553. Previously offered as MICR 3233. May not be used for degree credit with MICR 5553, PHYS 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 3890 Advanced Honors Experience in Microbiology
Prerequisites: Honors Program participation and concurrent enrollment in a designated MICR course.
Description: A supplemental Honors experience in microbiology to partner concurrently with designated upper-division MICR course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 4000 Honors in Microbiology
Prerequisites: Consent of departmental honors committee.
Description: Supervised study and research in microbiology. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 4001 Professional Transitions in Microbiology and Cell and Molecular Biology
Prerequisites: MICR 2123 or MICR 2132.
Description: Understanding major areas and employment activities in microbiology, cell biology and molecular biology fields. Evaluating and understanding scientific and professional literature, and making the transition from undergraduate education to postgraduate education or employment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4003 Brewing Microbiology (N)
Description: Brewing Microbiology is about the science behind beer brewing. Students will learn about the microbiology of yeast (including growth, metabolism, aseptic technique and contamination), biology of grain, biochemistry of malted barley, chemistry of water, preservative nature of hops, and the human physiology of taste and smell. There are no prerequisites for this course, although high school or freshman level biology and chemistry is helpful.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 4012 Molecular Microbiology Laboratory I
Prerequisites: MICR 3033 or MICR 3223.
Description: Emphasis on good laboratory practices in microbiology and molecular biology; isolation and enumeration of microorganisms; physiological, biochemical, and molecular characterization of aerobic and anaerobic microorganisms. May not be used for degree credit with MICR 5012. Course previously offered as CLML 4012.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4013 Microbial Diversity, Ecology, and Evolution
Prerequisites: MICR 2123 and BIOL 3023.
Description: This course covers the fundamentals of ecology and evolution as they pertain to microbes, while also emphasizing the extensive diversity of the microbial world. Students in this course will receive instruction in the underlying principles of phylogenetics and microbial phylogeny, of microbe-microbe, microbe-host, and microbe-environment interactions, and of key principles of evolutionary theory as they apply to microbes. May not be used for degree credit with MICR 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4023 Microbiomes in Human Health and the Environment
Prerequisites: MICR 2123, MICR 2132, and MICR 3033.
Description: This course covers the changing landscape in the molecular diversity of microbial communities, their interactions with biotic and abiotic entities, and how changes in microbiomes impact the health of living organisms and the environment. The main topics of this course include: microbes and microbial interactions; genomes and metagenomes; microbiome structure and function (alpha and beta diversity, phylogenetic trees); human microbiomes (gut, skin, oral) and their role in health; the microbiomes of soil, water and sediments; and the role of microbiomes in ecosystem function. Environmental microbiome effects on the human microbiome. May not be used for degree credit with MICRO 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4052 Pathogenic Microbiology Lab
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Overview of laboratory approaches and techniques for the study, characterization, and identification of bacteria involved in pathogenesis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4053 Pathogenic Microbiology
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Survey of pathogenic bacteria and the diseases they cause as they relate to humans and animals. Morphology, physiology, and pathogenic mechanisms of a specific bacterial pathogens. May not be used for degree credit with MICR 5053. Course previously offered as MICR 4134 and MICR 3134.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4112 Molecular Microbiology Capstone
Prerequisites: MICR 4012 with a grade of "C" or better.
Description: Continuation of MICR 4012. Molecular characterization of prokaryotic and eukaryotic microorganisms utilizing nucleic acids, proteins, cell fractionation, cytology, and antigen-antibody reactions. Same course as MICR 5112.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4117 Clinical Microbiology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except 30 hours clinical laboratory science.
Description: The theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites. Includes isolation, identification, antimicrobial susceptibility testing, and medical significance. Course previously offered as CLLS 4117 and MTCL 4117.
Credit hours: 7
Contact hours: Contact: 14 Other: 14
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4123 Virology
Prerequisites: MICR 2123 and (BIOL 3023 or MICR 3033 or BIOC 3653)
Description: Fundamental concepts of virology. Covers virus diversity & evolution, virus structure, infection & immune responses, vaccines & virus technology as well as virus discovery, emergence and epidemiology. Both eukaryotic and prokaryotic viruses (bacteriophages) will be discussed. May not be used for degree credit with MICR 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4125 Clinical Chemistry I
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: The theory and laboratory methodology of analytical biochemistry, clinical microscopy, routine and special procedures, and medical significance. Course previously offered as CLLS 4125 and MTCL 4125.
Credit hours: 5
Contact hours: Contact: 10 Other: 10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4163 Foundations of Cellular Life
Prerequisites: MICR 3033 or permission from instructor.
Description: This class will provide an in-depth introduction into fundamental principles that apply to any microorganism and will provide an intellectual framework to understand all cells. The fundamentals discussed will be illustrated through a combination of classical and recent scientific breakthroughs. It will provide a solid, deep foundation for a successful academic career in microbiology. May not be used for degree credit with MICR 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4203 Bioinformatics
Prerequisites: MICR 3033 or BIOC 3653 or equivalent.
Description: Fundamental concepts of biological sequence information and inferential techniques to assign structure, function, and evolutionary relationship among genes and proteins. No prior programming necessary, but familiarity with computers assumed. No credit for students with credit in MICR 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4233 Advanced Cell and Molecular Biology
Prerequisites: MICR 3033 with a grade of "C" or better.
Description: Advanced topics in cell and molecular biology including regulatory mechanisms of gene expression, protein function, cell structure and organization, cell division, and development. May not be used for degree credit with MICR 5233. Course previously offered as CLML 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4236 Clinical Hematology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours of clinical laboratory science.
Description: Systematized study of diseases, cell maturation and function, principles of hemostasis; methodology used in routine and special hematology studies; and correlation of hematological findings with physiological conditions. Course previously offered as CLLS 4236 and MTCL 4236.
Credit hours: 6
Contact hours: Contact: 12 Other: 12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4246 Clinical Immunology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: Immunologic responses and procedures used in serological determinations; immunohematology, fundamentals of antigen-antibody reactions, blood groups and types, compatibility testing, blood components, and the lab methods used as they relate to the medical significance of immunology and infectious diseases. Course previously offered as CLLS 4246 and MTCL 4246.
Credit hours: 6
Contact hours: Contact: 12 Other: 12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4253 Concepts in Medical Genetics
Prerequisites: BIOL 3023.
Description: Application of genetic principles in the study of human diseases, including the inheritance, molecular mechanisms, detection, characterization, and discovery of human genes. No credit for students with credit in MICR 5253. Course previously offered as CLML 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4263 Microbial Genetics: from Genes to Genomes
Prerequisites: MICR 3033 with a grade of "C" or better.
Description: Integration of genetics and genomics principles, the basic processes of gene transmission, molecular biology of gene expression and evolutionary genetics by gaining social and historical context in which genetics are developed. Participants are expected to comprehend the dramatic change in our understanding of genetics and the role such information has in our view of disability and disease. May not be used for degree credit with MICR 5263. Course previously offered as CLML 4263 and CLML 4264.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 4313 GeoMicrobiology
Description: Microbes have altered Earth's landscape over the past 3.5 billion years driving biogeochemical cycles and are still shaping our planet's surface. This course explores how microbes control geochemical processes and how geochemistry influences microbes. Course topics will cover microbe-mineral interactions, extremophiles, redox-geochemistry, enhanced oil and gas recovery, microbial metabolism and the diversity of microbial lifestyles. Students will gain an overview of methods used for the detection and identification of microorganisms in geological materials. This course is a journey along deep-sea sediments, hydrothermal systems, oil and gas reservoirs, agricultural soils, caves, Mars and many more. May not be used for degree credit with MICR 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4323 Cellular Energy Metabolism
Prerequisites: MICR 3033 or BIOC 3653.
Description: An exploration of the principals and mechanisms of energy utilization and transformation in animals, plants, and microbial systems. The course covers a range of topics from basic molecular mechanisms to recent advances in understanding energy flow in whole organisms. It includes new insights into the nanomachines involved in cell movement as well current genome-enabled approaches to understanding cellular energy metabolism. May not be used for degree credit with MICR 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4325 Clinical Chemistry II
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: The theory and laboratory methodology of analytical biochemistry, instrumentation, lab mathematics, routine and special procedures and medical significance. Course previously offered as CLLS 4325 and MTCL 4325.
Credit hours: 5
Contact hours: Contact: 10 Other: 10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4351 Topics in Clinical Laboratory Science
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: Principles and practices of the medical laboratory including basic management, quality assurance, education methodology, computer applications, laboratory safety, and special projects in selected areas. Course previously offered as CLLS 4351 and MTCL 4351.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4423 Antibiotics and Antibiotic Resistance
Prerequisites: MICR 2123.
Description: This course begins with a basic history of antibiotics, including their discovery and industrial development. It covers the major classes of antibiotics, their structures and mechanisms of action, and the mechanisms by which bacteria become resistant to antibiotics. Also covered are industrial and commercial considerations, antibiotic stewardship, current challenges, and future prospects for antibiotic discovery and use. Same course as MICR 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, microcontrollers, spectrophotometers, centrifuges, chromatography, thermocyclers, and DNA sequencers. May not be used for degree credit with BIOL 5524, MICR 5524, PBIO 5524. Same course as BIOL 4524 and PBIO 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 4531 Chemical Biology
Prerequisites: CHEM 3053, MICR 3112, MICR 3153.
Description: Chemistry explains many properties of biological macromolecules and also provides research tools to study these molecules. This course will examine how both of these aspects help explain the molecular processes at the basis of life, and will cover (1) basic knowledge of chemistry needed to understand life, (2) chemical reactions as they occur in the cell, (3) chemical methods that are valuable to research in the life sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4543 Microbial Genomics and Bioinformatics
Prerequisites: MICR 2123; MICR 3033 or MICR 3223 or equivalents.
Description: Basic approaches and strategies for microbial genome analysis, and hands-on training on the subject. May not be used for degree credit with MICR 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4990 Special Problems
Prerequisites: Consent of instructor.
Description: Investigations in the field of microbiology. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A research project under the direction of a faculty member resulting in a written report to be judged by a second faculty member as well. Required for graduation with departmental honors in microbiology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 5000 Thesis
Prerequisites: Consent of major professor.
Description: A student studying for the M.S. degree enrolls in this course for six hours credit. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 5002 Professionalism for the Microbiologist
Prerequisites: Microbiology graduate student or permission of instructor.
Description: Introduces the microbiology graduate student to the standards of the microbiology professional and to basic skills in communication and data retrieval needed by all microbiologists. It is required of all and limited to MS and PhD students in Microbiology & Molecular Genetics. Course previously offered as MICR 5001.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5012 Molecular Microbiology Laboratory I
Prerequisites: MICR 3223, MICR 4233.
Description: Emphasis on good laboratory practices in microbiology and molecular biology; isolation and enumeration of microorganisms; physiological, biochemical, and molecular characterization of aerobic and anaerobic microorganisms. Must be taken in conjunction with MICR 5112 the following semester. No credit for students with credit in MICR 4012.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5013 Microbial Diversity, Ecology, and Evolution
Prerequisites: MICR 2123 and BIOL 3023.
Description: This course covers the fundamentals of ecology and evolution as they pertain to microbes, while also emphasizing the extensive diversity of the microbial world. Students in this course will receive instruction in the underlying principles of phylogenetics and microbial phylogeny, of microbe-microbe, microbe-host, and microbe-environment interactions, and of key principles of evolutionary theory as they apply to microbes. No credit for students with credit in MICR 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5023 Microbiomes in Human Health and the Environment
Description: This course covers the changing landscape in the molecular diversity of microbial communities, their interactions with biotic and abiotic entities, and how changes in microbiomes impact the health of living organisms and the environment. The main topics of this course include: microbes and microbial interactions; genomes and metagenomes; microbiome structure and function (alpha and beta diversity, phylogenetic trees); human microbiomes (gut, skin, oral) and their role in health; the microbiomes of soil, water, and sediments; and the role of microbiomes in ecosystem function. Environmental mircobiome effects on the human microbiome. May not be used for degree credit with MICR 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5052 Techniques In Molecular Biolog
Prerequisites: Graduate student and permission of instructor.
Description: Provides the basic skills for scientific thinking and analysis in molecular microbiological research.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5053 Pathogenic Microbiology
Prerequisites: MICR 2123 and MICR 2132. Co-requisite(s): MICR 3223.
Description: Survey of pathogenic bacteria and the diseases they cause as they relate to humans and animals. Morphology, physiology, and pathogenic mechanisms of specific bacterial pathogens. May not be used for degree credit with MICR 4053. Course previously offered as MICR 5134.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5112 Molecular Microbiology Capstone
Prerequisites: MICR 5012.
Description: Continuation of MICR 5012. Molecular characterization of prokaryotic and eukaryotic microorganisms utilizing nucleic acids, proteins, cell fractionation, cytology, and antigen-antibody reactions. No credit for students with credit in MICR 4112.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5113 Advanced Immunology
Description: Advanced studies with emphasis on the regulation of vertebrate immune responses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5123 Virology
Prerequisites: MICR 2123 and (BIOL 3023 or MICR 3033 or BIOC 3653)
Description: Fundamental concepts of virology. Covers virus diversity & evolution, virus structure, infection & immune responses, vaccines & virus technology as well as virus discovery, emergency and epidemiology. Both eukaryotic and prokaryotic viruses (bacteriophages) will be discussed. No credit for students with credit in MICR 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5142 Techniques in Molecular Biology
Prerequisites: Consent of instructor.
Description: Comprehensive laboratory course in research techniques involving classical genetics and molecular biology. Course previously offered as MICR 4142.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5153 Emerging Infectious Agents
Prerequisites: MICR 4123 or MICR 4134 or consent of instructor.
Description: An in-depth discussion of the importance of emerging infectious agents, the molecular basis for their emergence, and the broad spectrum of host-microbe interactions favoring the evolution of new infectious agents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5160 Seminar
Prerequisites: Consent of instructor.
Description: Required of and limited to all MS and PhD students majoring in microbiology, cell and molecular biology. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 5163 Foundations of Cellular Life
Prerequisites: OSU graduate student or permission of instructor.
Description: This class will provide an in-depth introduction into fundamental principles that apply to any microorganism and will provide an intellectual framework to understand all cells. The fundamentals discussed will be illustrated through a combination of classical and recent scientific breakthroughs. It will provide a solid, deep foundation for a successful academic career in microbiology. Previously offered as MICR 6163. May not be used for degree credit with MICR 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5203 Bioinformatics
Prerequisites: MICR 3033 or BIOC 3653 or equivalent.
Description: Fundamental concepts of biological sequence information and inferential techniques to assign structure, function, and evolutionary relationship among genes and proteins. No prior programming necessary, but familiarity with computer desktop assumed. No credit for students with credit in MICR 4203. Course previously offered as CLML 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5233 Advanced Cell and Molecular Biology
Prerequisites: MICR 3033.
Description: Advanced topics in cell and molecular biology including regulatory mechanisms of gene expression, protein function, cell structure and organization, cell division, and development. No credit for students with credit in MICR 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5253 Concepts in Medical Genetics
Prerequisites: BIOL 3023.
Description: Application of genetic principles in the study of human diseases, including the inheritance, molecular mechanisms, detection, characterization, and discovery of human genes. No credit for students with credit in MICR 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5263 Microbial Genetics: from Genes to Genomes
Description: Integration of genetics and genomics principles, the basic processes of gene transmission, molecular biology of gene expression and evolutionary genetics by gaining social and historical context in which genetics are developed. Participants are expected to comprehend the dramatic change in our understanding of genetics and the role such information has in our view of disability and disease. May not be used for degree credit with MICR 4263.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5273 Advanced Principles of Microbial Pathogenesis
Description: Advanced study of the pathogenic mechanisms used by microbial pathogens to cause disease. Principles of pathogen and pathogen-host interactions that lead to disease pathology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5313 GeoMicrobiology
Description: Microbes have altered Earth's landscape over the past 3.5 billion years driving biogeochemical cycles and are still shaping our planet's surface. This course explores how microbes control geochemical processes and how geochemistry influences microbes. Course topics will cover microbe-mineral interactions, extremophiles, redox-geochemistry, enhanced oil and gas recovery, microbial metabolism and the diversity of microbial lifestyles. Students will gain an overview of methods used for the detection and identification of microorganisms in geological materials. This course is a journey along deep-sea sediments, hydrothermal systems, oil and gas reservoirs, agricultural soils, caves, Mars and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5323 Cellular Energy Metabolism
Prerequisites: MICR 3033 or BIOC 3653.
Description: An exploration of the principals and mechanisms of energy utilization and transformation in animals, plants, and microbial systems. The course covers a range of topics from basic molecular mechanisms to recent advances in understanding energy flow in whole organisms. It includes new insights into the nanomachines involved in cell movement as well current genome-enabled approaches to understanding cellular energy metabolism. May not be used for degree credit with MICR 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5333 Controversies in Vaccinology
Prerequisites: OSU graduate student status or permission of instructor.
Description: Public misconceptions about science abound, however, these misconceptions have a major impact on perception of research and public policy. Examples of themes in science as portrayed, for example, in film will be explored and critically discussed. Ways to improve communication between the scientist and the general public will be evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5423 Antibiotics and Antibiotic Resistance
Description: This course begins with a basic history of antibiotics, including their discovery and industrial development. It covers the major classes of antibiotics, their structures and mechanisms of action, and the mechanisms by which bacteria become resistant to antibiotics. Also covered are industrial and commercial considerations, antibiotic stewardship, current challenges, and future prospects for antibiotic discovery and use. Same course as MICR 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5513 Grant Proposal Preparation
Prerequisites: Admission into Microbiology graduate program. Formats, strategies, and styles of research grant proposal writing.
Description: Activities include hypothesis development and critical evaluation of research proposals.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 5524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocyclers, and DNA sequencers. May not be used for degree credit with BIOL 4524; MICR 4524; PBIO 4524. Previously offered as BIOL 5524; PBIO 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5543 Microbial Genomics and Bioinformatics
Prerequisites: MICR 2123; MICR 3033 or MICR 3223 or equivalents.
Description: Basic approaches and strategies for microbial genome analysis, and hands-on training on the subject. Graduate students enrolled in the class are expected to give a comprehensive presentation on the genomic analysis done throughout the semester. The presentation should be a manuscript format with a brief Introduction, Materials and Methods, Results, and Discussion. A comprehensive use of all principals covered in class is expected and will be used for evaluation. Credit will also be given to handling questions and presentation skills. May not be used for degree credit with MICR 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5553 Foundations of Cancer
Prerequisites: A minimum grade of "C" in CHEM 3053 (or equivalent) or MICR 3033 (or equivalent) or consent of instructor.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer progression/diagnosis, cancer treatments, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Suitable for graduate students in cancer-related research. Same course as PHYS 5553. May not be used for degree credit with MICR 3553, or PHYS 3553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 5990 Special Problems
Prerequisites: Permission of instructor.
Description: Investigations in the field of Microbiology. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6000 Dissertation
Prerequisites: Consent of major adviser.
Description: Research in microbiology for the PhD degree. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6112 Molecular Biology of Bacterial Viruses
Prerequisites: MICR 4123 and MICR 4133.
Description: Advanced study of bacteriaphages. Course previously offered as MICR 6113.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6120 Recent Advances in Microbiology
Prerequisites: One graduate course in biochemistry.
Description: Discussion and evaluation of recent scientific contributions in terms of the living organism. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6133 Cellular Microbiology
Prerequisites: A strong undergraduate level background in microbiology, biochemistry or cell biology is expected.
Description: The molecular interactions between intracellular parasites and their host cells will be explored, emphasizing the manipulation of normal cellular processes to the benefit of the parasite. The course will involve critical reading of the current literature and development of an understanding of molecular microbe and cell biology research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6143 Advanced Microbial Physiology
Prerequisites: MICR 3223 or consent of instructor.
Description: Discussion of selected topics in microbial physiology. Critical analysis of research papers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6153 Molecular Microbial Genetics
Description: Examine modern and classical genetic techniques to understand the underlying principles of molecular genetics using original literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6223 Molecular Environmental Microbiology and Ecology
Prerequisites: MICR 3223 or consent of instructor.
Description: This course focuses on fundamental and applied aspects of microbial ecology, physiology and genomics. The course aims to highlight the value of microbes in applied disciplines such as medicine, agriculture, and biotechnology. Recent advances in methodologies and approaches for examining the phylogenetic and metabolic diversity of microorganisms in various ecosystems, as well as tools for understanding microbial community composition and identification of rare members of microbial community will be highlighted.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6253 Microbial Evolution
Prerequisites: MICR 2123, MICR 2132, BIOC 3653, BIOL 3023.
Description: The mechanisms and results of microbial evolution in nature and in the laboratory, with emphasis on microbes as model evolutionary systems, molecular evolution, classification and phylogeny, and discussion of protobiology and the probable fate of engineered microbes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6323 Cell Signaling
Prerequisites: A strong undergraduate level background in microbiology, biochemistry, or cell biology is expected.
Description: Discussion of current literature on the mechanisms of prokaryotic and eukaryotic signal transduction and gene regulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

Military Science (MLSC)

MLSC 1113 Foundations of Officership
Description: Lecture: Team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, presentations and basic marksmanship. Fundamentals of leadership. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1112.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 1213 Basic Leadership
Description: Lecture: Principles of effective leading, communication skills and organizational ethical values. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1212.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2122 Leader's Training Course
Prerequisites: Must meet with Department head and have their approval.
Description: For students who have not completed all of basic ROTC. A four-week summer camp similar to Army Basic Training. No military obligation incurred. Completion of MLSC 2122 qualifies a student for entry into the Advanced Course.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2130 Military Physical Conditioning
Prerequisites: Must meet with department head and have their approval.
Description: Participation in and learning to plan and lead a physical fitness program. Development of an individual fitness program and the role of exercise and fitness in person's life. Offered for 1 hour fixed credit. Maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2233 Individual Leadership Studies
Description: Ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Skills in oral presentation, writing, planning, coordinating groups, land navigation and basic military tactics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2313 Leadership and Teamwork
Prerequisites: MLSC 2233.
Description: Individual and team aspects of military tactics in small unit operations. Safety assessment, movement techniques, planning for team safety and security and methods of pre-execution checks. Training techniques for continued leadership development.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3113 Leadership and Problem Solving
Prerequisites: Completion of lower-division MLSC or equivalent, and approval of professor of military science.
Description: Practical opportunities to lead small groups in situations of increasing complexity receiving personal assessments and encouragement. Use of small unit defensive tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3223 Leadership and Ethics
Prerequisites: MLSC 3113.
Description: Analysis of tasks; preparation of written or oral guidance for team members to accomplish tasks. Delegating tasks and supervising. Planning and adapting to the unexpected in organizations under stress. Examination and application of lessons from leadership case studies. Examination of importance of ethical decision-making in setting a positive climate that enhances team performance.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4014 Leader Development and Assessment Course
Prerequisites: Must meet with Department Head and have their approval.
Description: A five-week camp conducted at an Army post. Individual leadership and basic skills performance.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 4123 Leadership and Management
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Planning conducting and evaluating activities of the ROTC cadet organization. Articulating goals, putting plans into action to attain them. Assessing organizational cohesion and developing strategies to improve it. Developing confidence in skills to lead people and manage resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4223 Officership
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Continuation of the methodology from MLSC 4123. Identification and resolution of ethical dilemmas. Refining counseling and motivating techniques. Examination of aspects of tradition and law as related to leading as an officer in the Army.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4422 The Tactical Planning Process
Prerequisites: Must meet with department head and have their approval.
Description: The tactical planning process and its components. Computer tactical simulations used to organize and synchronize the process.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Military Science

Multimedia Journalism (MMJ)

MMJ 2063 Fundamentals of Journalism
Prerequisites: Departmental majors only. (MMJ, SPM, SC, and PMC.)
Description: Basics of journalism, its role in society and problems and issues facing journalism. History, philosophy, ethics and current events will be discussed. Students also will practice the basics of interviewing and writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 2773 Censorship
Description: A critical examination of historical and contemporary occurrences of censorship from legal, philosophical, political, religious and sociological perspectives. We will explore the definition of censorship, the common elements found in all forms of censorship, the rationalizations and justifications for censorship, and the consequences and unintended results of censorship. We also critically examine relevant First Amendment theories, principles and applications. No credit for students with credit in MC 5773. Previously offered as JB 4773 and MMJ 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3153 Fundamentals of Video and Studio Production
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better; and pass proficiency review.
Description: Theory and practice of basic audio and video production techniques leading to later applications in audio, video and multimedia production. Introduction to studio operations for video and podcasting. Previously offered as JB 3153.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3263 Multimedia Reporting
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Prepares students for the rigors of writing, reporting and visual storytelling for professional journalism outlets. Real-world assignments provide practical experience reporting and writing across media platforms. Emphasis on compelling storytelling and depth of reporting with an expectation that student work will be published or broadcast. Continuing command of grammar and style from MC 2003 will further be honed. News judgment, interviewing, the ability to meet deadlines will be addressed. Gathering news in an ethical manner is also emphasized. Previously offered as JB 2393 and JB 3263.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3293 Information Graphics
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better; and pass proficiency review.
Description: Using computer-designed charts, maps, graphs, diagrams and other visual representations of information to tell the news. Combines theories of non-verbal communication and practical application. Includes the basic design concepts and techniques for creating TV and video graphics. Previously offered as JB 3293.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3313 Multimedia Editing
Prerequisites: MMJ 3263 with a grade of "C" or better or concurrent enrollment in MMJ 3263, pass proficiency review.
Description: Principles and practice in editing copy for print, broadcast and Web, selecting pictures and video, and writing headlines, cutlines, blurbs, teases and promos. Strong emphasis placed on language usage and ethical decision-making. Previously offered as JB 3313 and JB 2413.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 3553 Advanced Reporting
Prerequisites: MMJ 3153 and MMJ 3263 with “C” or better in both, and pass proficiency review.
Description: Reporting techniques empowering journalists to fulfill their watchdog role in a democracy. Practical experience in accurately reporting and writing on deadline. Emphasis on multimedia to tell the news of government through people. Emphasizes importance of human diversity and cultivating sources ethically. Stresses the use of government documents. Previously offered as JB 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: JB Equipment Use fee of $10 applies.

MMJ 3773 Multimedia Voice and On-Camera Performance
Prerequisites: MMJ 3153 and MMJ 3263 with a grade of "C" or better in both; and pass proficiency review.
Description: Broadcast professionals team up with experienced faculty to polish the on-air performance of media students. In this class students will anchor and report news and discover their own personal style of delivering the news and sports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3873 Podcast and Audio Production
Prerequisites: MMJ 3153 with a grade of C or better; and pass proficiency review.
Description: Prepares students to work in radio and internet audio production and imaging. Students prepare and present materials in a broadcasting situation. Students learn about and develop skills in different formats of audio production, including the production of audio messages such as radio commercials and long-form programming, including podcasting. Previously offered as JB 3873 and JB 2873.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 3900 Multimedia Journalism Internship
Prerequisites: MMJ 3153 and MMJ 3263 with a grade of "C" or better and consent of instructor, and pass proficiency review.
Description: Internship practice for qualified multimedia journalism students who seek creative communications experience off-campus beyond what is available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Previously offered as JB 3900. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MMJ 3913 Multimedia Content Creation
Prerequisites: MMJ 3153 and MMJ 3263 or SPM 3813 with a grade of "C" or better in both; and pass proficiency review.
Description: Techniques to write and produce creative content (video, audio and web-based projects) in a real-world environment. Students will produce material in the field, without assistance from studio engineers or other personnel. Applications are endless, but include social media content creation, sports, news, documentary, multimedia and long-form journalism projects, and even live production. Although a news format may be used for projects, the skills taught will translate into many production fields. Previously offered as JB 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3943 Photojournalism
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each, and pass proficiency review.
Description: Theory and practice in the digital techniques of photojournalism. Intermediate concepts of lighting, composition, action and storytelling via digital photography. A basic understanding of photography and photo developing necessary. Must have access to 35mm single reflex or digital camera. Previously offered as JB 3943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4393 Data Journalism
Prerequisites: MMJ 3263 or SPM 3813 with a grade “C” or better, pass proficiency review; STAT 2013 or STAT 2023 or STAT 2053.
Description: Provides practical experience using data analysis while combining social science research methods with the process approach to news writing. Teaches how to find, analyze and visualize data. The data analysis will provide an essential element for a print or broadcast story. Follow-up reporting and writing emphasize how people are affected. Previously offered as JB 3393 and 4393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4413 Investigative Reporting
Prerequisites: MMJ 3553 with a grade of "C" or better; and pass proficiency review.
Description: Emphasizes the ethical use of primary sources, in-depth analysis and rigorous fact-checking to reveal important public matters that that others might be trying to conceal. Students learn to correctly estimate the nature, scope, importance and resources needed to conduct an original investigative project. They examine the ethical dilemmas and legal obstacles facing investigative reporters. Students report, write and produce a completed multimedia investigative project for publication and/or broadcast. Previously offered as JB 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4433 Multimedia Feature Writing and Storytelling
Prerequisites: MMJ 3153 and MMJ 3263 with "C" or better; and pass proficiency review.
Description: In-depth features that combine writing, broadcast, photography and other elements as needed to produce packages. Previously offered as JB 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4540 Specialized Multimedia Journalism Applications
Prerequisites: MMJ 3153 or MMJ 3263 with a grade of "C" or better and consent of department; and pass proficiency review.
Description: Professional journalism at an advanced level. Special topics in areas such as announcing, performance; political, business and investigative reporting; advanced layout and design or audio production; feature, column and editorial writing. Course content varies by semester. Meets with MC 5540. No credit for students in MC 5540. Previously offered as JB 4540. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MMJ 4573 Broadcast Documentary
Prerequisites: MMJ 3913 with a grade of "C" or better; and pass proficiency review.
Description: Written and produced broadcast documentaries designed for distribution in multiple video platforms. Previously offered as JB 4573. May not be used for degree credit with ENTM 4573.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 4863 Media Management
Prerequisites: MMJ 3263 or SPM 3813 with a grade of "C" or better; and pass proficiency review.
Description: Basic issues, concepts, operational procedures and strategies associated with effectively managing media corporations. Examines management operations related to media convergence and audience measurement. Emphasis is placed on making ethical decisions and administrative choices in staffing and content that reflect a community's diversity. Previously offered as JB 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4953 Advanced Production Practices
Prerequisites: MMJ 3913 and MMJ 3263 with a "C" or better; and pass proficiency review.
Description: Advanced professional television production. Student produced and directed television programs, including "specials," for distribution on cable or other professional media. Previously offered as JB 4953.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 4960 Live Production
Prerequisites: MMJ 3153 with a grade of "C" or better; and pass proficiency review or consent of instructor.
Description: Develop a live, in-the-field or studio production from writing a program proposal to an actual live broadcast. Students determine what equipment is needed; conduct a site survey to develop a location plot for the site; determine the best location for the cameras and master control area; write a facilities request; and create scripts. Students learn proper techniques of in-the-field or studio videography, switching (live editing), and audio. Homecoming parade, its pre-show and other events are required. Previously offered as JB 4960. Offered for 3 fixed credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4970 Newscast Production
Prerequisites: MMJ 3153 or MMJ 3263 with a grade of "C" or better in each, pass proficiency review.
Description: Advanced skills in reporting, news producing, editing and anchoring. Students will assemble a video newscast or newsmagazine with content that is usable across various media platforms. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4973 Multimedia Journalism Capstone
Prerequisites: MMJ 3553 and MMJ 4393 each with a grade of "C" or better; and pass proficiency review.
Description: Advanced principles and techniques for students specializing in both news and digital production. Students come together as teams to create multimedia news products.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

Music (MUSI)

MUSI 0500 Student Recital Attendance
Description: Graduation requirement for music degree or certificate candidates. Graded on a pass/fail basis.
Credit hours: 0
Contact hours: Lecture: 0 Contact: 0
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1001 Percussion Techniques
Description: Methods for playing and teaching percussion instruments.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1002 Fundamentals of Music
Description: The study of the foundations of tonal harmony.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1011 Class Piano I
Prerequisites: Music major status or consent of instructor AND (MUSI 1532 with a minimum grade of "C" OR concurrent enrollment in MUSI 1532).
Description: Class Piano I is a course designed for vocal and instrumental (non-keyboard) majors to develop functional piano skills. Basic fluency in musical notation is assumed.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1021 Class Piano II
Prerequisites: MUSI 1011 with minimum grade of “C” and music major status or consent of instructor.
Description: Class Piano II continues the development of keyboard skills established in MUSI 1011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1031 Voice Class Lessons
Description: To gain knowledge within a group class setting of the vocal instrument as it applies to each individual, and to learn to apply these techniques to solo voice performance. To give each student a strong foundation in healthy classical vocal technique to allow them to sing throughout their lifetime.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1071 Single Reed Techniques
Description: Methods for playing and teaching the clarinet and saxophone.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1081 Double Reed Techniques
Description: Methods for playing and teaching the oboe and bassoon.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1091 High Brass Techniques
Prerequisites: MUSI 1532 with a minimum grade of "C" or consent of instructor.
Description: Methods for playing and teaching the trumpet and French horn.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1110 Elective Organ
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1120 Elective Piano
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1130 Elective Voice
Prerequisites: Concurrent enrollment in a choral ensemble (MUSI 2630, MUSI 3630 and/or MUSI 4600) or permission of instructor.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1140 Elective Brass
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1150 Elective Class Guitar
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1160 Elective Woodwinds
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1170 Elective Percussion
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1180 Secondary Organ
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1190 Secondary Piano
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1200 Secondary Voice
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1210 Secondary Brass
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1220 Secondary String
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1230 Secondary Woodwind
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1240 Secondary Percussion
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1250 Major Organ
Description: Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1260 Major Piano
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1270 Major Voice
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1280 Major Violin
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1290 Major Viola
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1300 Major Cello
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1310 Major Double Bass
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1340 Major Flute
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1350 Major Oboe
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1360 Major Clarinet
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1370 Major Saxophone
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1380 Major Bassoon
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1390 Major Trumpet
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1400 Major French Horn
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1410 Major Trombone
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1420 Major Euphonium
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1430 Major Tuba
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1440 Major Percussion
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1501 Sightreading and Technique for Piano Majors
Prerequisites: Music major status or consent of instructor.
Description: Sightreading and Technique for Piano Majors is a course designed for pianists to develop keyboard fluency through essential keyboard skills required for pianists, including sightreading, technique, harmonization and transposition.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 1531 Sight Singing and Aural Skills
Prerequisites: Must have passed or be concurrently enrolled in MUSI 1532 Theory of Music I.
Description: Development of skills in sight singing and aural perception. Taken concurrently with MUSI 1532.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1532 Theory of Music I
Prerequisites: MUSI 1002 Fundamentals of Music or receiving a passing score of 30 points or higher on the music theory diagnostic exam.
Description: The study of tonal harmony through analysis and composition. Taken concurrently with MUSI 1531. Previously offered as MUSI 1533.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1541 Sight Singing and Aural Skills II
Prerequisites: MUSI 1531 and (MUSI 1532 or MUSI 1533) with minimum grade of "C."
Description: A continuation of MUSI 1531. Taken concurrently with MUSI 1542 or MSIN 2022.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1542 Theory of Music II
Prerequisites: MUSI 1532 with minimum grade of "C."
Description: A continuation of MUSI 1532. Taken concurrently with MUSI 1541. Previously offered as MUSI 1543.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1623 Introduction to Music Business
Prerequisites: Music major status or consent of instructor.
Description: A survey of music business procedures, opportunities, technologies and trends.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1631 Introduction to Diction for Singers
Description: Designed for Music Education majors. Introduces and develops skills in pronunciation and diction for singing in English, Italian, French and German.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2010 Piano Class Lessons
Prerequisites: MUSI 1021 with minimum grade of "C" and music major status.
Description: Class lessons for music majors (non-keyboard concentration) preparing for the piano proficiency examination. Previously offered as MUSI 2011. Offered for 1-fixed credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2013 Popular Music Theory
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: This course is a continuation of MUSI 1542. The course will focus on jazz and popular music theory, including elementary principles of popular chord voicings and arrangements, chord scale relationships, blues, AABA and other song forms. Analysis of jazz solo transcription as well as basic keyboard skills will be emphasized in addition to required listening to exceptional examples of standard popular music recordings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2051 High String Techniques
Description: Methods for playing and teaching the violin and viola. Previously offered as MUSI 2052.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2061 Low String Techniques
Description: Methods for playing and teaching the cello and double bass. Previously offered as MUSI 2052.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2071 Flute Techniques
Description: Methods for playing and teaching the flute.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2080 Music Composition
Prerequisites: Consent of instructor.
Description: Practical experience in musical composition. Offered for 1-2 credit hours, maximum of 8.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2091 Low Brass Techniques
Description: Methods for playing and teaching the trombone, euphonium, and tuba.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2250 Major Organ
Prerequisites: MUSI 1250.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2260 Major Piano
Prerequisites: MUSI 1260.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2270 Major Voice
Prerequisites: MUSI 1270.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2280 Major Violin
Prerequisites: MUSI 1280.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2290 Major Viola
Prerequisites: MUSI 1290.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2300 Major Cello
Prerequisites: MUSI 1300.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2310 Major Double Bass
Prerequisites: MUSI 1310.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2340 Major Flute
Prerequisites: MUSI 1340.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2350 Major Oboe
Prerequisites: MUSI 1350.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2360 Major Clarinet
Prerequisites: MUSI 1360.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2370 Major Saxophone
Prerequisites: MUSI 1370.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2380 Major Bassoon
Prerequisites: MUSI 1380.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2390 Major Trumpet
Prerequisites: MUSI 1390.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2400 Major French Horn
Prerequisites: MUSI 1400.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2410 Major Trombone
Prerequisites: MUSI 1410.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2420 Major Euphonium
Prerequisites: MUSI 1420.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2430 Major Tuba
Prerequisites: MUSI 1430.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2440 Major Percussion
Prerequisites: MUSI 1440.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2450 Major Harpsichord
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2480 Elective Applied Lessons
Prerequisites: Permission of instructor.
Description: Applied lessons for non-music majors or for majors studying secondary instruments.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2490 Major Applied Lessons
Prerequisites: Music major status.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2551 Sight Singing and Aural Skills III
Prerequisites: MUSI 1541 and MUSI 1542 with minimum grade of "C."
Description: Further development of skills in sight singing and aural perception. Taken concurrently with MUSI 2552.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2552 Theory of Music III
Prerequisites: MUSI 1542 with minimum grade of "C."
Description: A continuation of MUSI 1542. Taken concurrently with MUSI 2551. Previously offered as MUSI 2553.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2561 Sight Singing and Aural Skills IV
Prerequisites: MUSI 2551 and MUSI 2552 with minimum grade of "C."
Description: A continuation of MUSI 2551. Taken concurrently with MUSI 2562.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2562 Theory of Music IV
Prerequisites: MUSI 2552 with minimum grade of "C."
Description: A continuation of MUSI 2552. Taken concurrently with MUSI 2561. Previously offered as MUSI 2563.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2573 Introduction to Music (H)
Description: Introduction to the great music of the past and present with the objective of bridging the gap between the audience and concert stage via active listening. No prior musical experience required. Previously offered as MUSI 2572.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2583 Hip-Hop Music
Description: This course examines hip-hop as a musical genre and culture, exploring MCing/rapping, DJing/scratching, sampling, beat boxing, and break dancing, within its musical and social context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2603 Film Music
Description: This course examines film music from the silent film era to present day. Students analyze film scores to observe the associations between music and film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2610 University Bands I
Description: Beginning study of a wide variety of music in all areas of band literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2620 Symphony Orchestra I
Description: Beginning study of a wide variety of music in all areas of orchestral literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2630 University Choral Ensembles I
Description: Beginning study of a wide variety of music in all areas of choral literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2722 Introduction to Music Education
Description: An entry level course designed to socialize the music education major to the role of the music education teacher within U.S. schools. Topics include motivation and management, learning theories, micro teaching, music advocacy, portfolio introduction, and early field experience. Previously offered as MUSI 1723.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2763 History of Rock and Roll (H)
Description: Study of the origins and innovators of rock and roll music. Course will examine the musical, historical and sociological significance of a variety of genres. Previously offered as MUSI 3733. May not be used for degree credit with MUSI 3883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2783 American Popular Music (H)
Description: A survey of American popular music from the nineteenth century to the present day. Beginning with Tin Pan Alley and Broadway, the course traces many major developments in American popular music, such as rock and roll, country music, soul, funk, disco, punk rock, and hip-hop.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2990 Selected Studies in Music and Music Education
Description: Short-term area studies in music and music education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3012 Advanced Music Production
Prerequisites: MUSIC 3672 with a minimum grade of "C".
Description: Students explore techniques and practices related to making sound recordings. The objective of the course is to create studio quality recordings using Pro Tools.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3013 Country Music
Description: This course examines country music forerunners to present day commercial country music. Students explore social, political, and musical issues related to the American genre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3022 Piano Skills for Vocal Music Education Majors
Prerequisites: MUSI 2010 with a minimum grade of "C" or consent of instructor.
Description: Development of skills in sight-reading, score reading, and general ensemble accompaniment for vocal music education majors.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3110 Elective Organ
Prerequisites: MUSI 1110.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3120 Elective Piano
Prerequisites: MUSI 1120.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3130 Elective Voice
Prerequisites: Concurrent enrollment in a choral ensemble (MUSI 2630, MUSI 3630 and/or MUSI 4600) or permission of instructor.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3140 Elective Brass
Prerequisites: MUSI 1140.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3150 Elective String
Prerequisites: MUSI 1150.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3160 Elective Woodwind
Prerequisites: MUSI 1160.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3170 Elective Percussion
Prerequisites: MUSI 1170.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3180 Secondary Organ
Prerequisites: MUSI 1180.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3190 Secondary Piano
Prerequisites: MUSI 1190.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3200 Secondary Voice
Prerequisites: MUSI 1200.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3210 Secondary Brass
Prerequisites: MUSI 1210.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3220 Secondary String
Prerequisites: MUSI 1220.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3230 Secondary Woodwind
Prerequisites: MUSI 1230.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3240 Secondary Percussion
Prerequisites: MUSI 1240.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3250 Major Organ
Prerequisites: MUSI 1250.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3260 Major Piano
Prerequisites: Upper-division examination, MUSI 2260.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3270 Major Voice
Prerequisites: Upper-division examination, MUSI 2270.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3280 Major Violin
Prerequisites: Upper-division examination, MUSI 2280.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3290 Major Viola
Prerequisites: Upper-division examination, MUSI 2290.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3300 Major Cello
Prerequisites: Upper-division examination, MUSI 2300.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3310 Major Double Bass
Prerequisites: Upper-division examination, MUSI 2310.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3340 Major Flute
Prerequisites: Upper-division examination, MUSI 2340.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3350 Major Oboe
Prerequisites: Upper-division examination, MUSI 2350.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3360 Major Clarinet
Prerequisites: Upper-division examination, MUSI 2360.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3370 Major Saxophone
Prerequisites: Upper-division examination, MUSI 2370.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3380 Major Bassoon
Prerequisites: Upper-division examination, MUSI 2380.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3390 Major Trumpet
Prerequisites: Upper-division examination, MUSI 2390.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3400 Major French Horn
Prerequisites: Upper-division examination, MUSI 2400.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3410 Major Trombone
Prerequisites: Upper-division examination, MUSI 2410.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3420 Major Euphonium
Prerequisites: Upper-division examination, MUSI 2420.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3430 Major Tuba
Prerequisites: Upper-division examination, MUSI 2430.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3440 Major Percussion
Prerequisites: Upper-division examination, MUSI 2440.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3460 Secondary Harpsichord
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3543 Music and Culture of Northern Italy (H)
Description: Study of northern Italy's contributions to culture through music and composers, instrument makers, architecture, and visual arts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3572 History of Opera in Society (H)
Description: This course examines the development of opera not only as a genre of western European art music, but also as a class-based form of theatrical entertainment that served as commentary on contemporary artistic, social, and political issues.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3573 America's Ethnic Music (DH)
Description: A survey of the ethnic settlers of America and their musical traditions and literatures. Particular emphasis is given to settlers indigenous to Oklahoma. Students will examine their individual ethnic roots in music, family traditions, and life passages (births, deaths, celebrations).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

MUSI 3582 Survey of World Musics
Description: Survey of musical systems, performance practices, and philosophies from around the world, highlighting non-Western musics.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3583 Traditional World Music (H)
Description: Survey of the richly diverse musics of the world, emphasizing traditional musical practices. Exploration of the wide parameters of musical possibilities and the distinct priorities of various musical cultures, in order to gain insight and appreciation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3592 Introduction to Music Technology
Prerequisites: MUSI 1532.
Description: Introduction to specialized computer applications in music, including music notation, digital audio recording, processing and editing.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3593 Video Game Music
Description: This course examines the role of music as well as sound design (effects and ambient sounds) in video games. The course traces the history of video game music, exploring the similarities and differences from film music. Students focus on the interactivity and nonlinearity of video game music.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3610 University Bands II
Prerequisites: 4 hours of MUSI 2610.
Description: Advanced study of a wide variety of music in all areas of band literature. Offered for fixed, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3620 Symphony Orchestra II
Description: Advanced study of a wide variety of music in all areas of orchestral literature. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3630 University Choral Ensembles II
Description: Advanced study of a wide variety of music in all areas of choral literature. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3640 Vocal Rehearsal Practicum
Prerequisites: MUSI 3712 with a minimum grade of "C"; AND MUSI 3832 with a minimum grade of "C"; and (MUSI 3932 with a minimum grade of "C" OR concurrent enrollment in MUSI 3932); OR consent of instructor.
Description: Designed for Vocal Music Education majors who are within two semesters of student teaching. This course prepares future teachers with classroom skills using one of the choral ensemble or lab group as their rehearsal medium. Previously offered as MUSI 3942. Same course as MUSI 3942. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3641 Instrumental Rehearsal Practicum
Description: Designed for Instrumental Music Education majors who are within two semesters of student teaching. This course prepares future teachers with classroom skills using an instrumental ensemble or lab group as their rehearsal medium. Previously offered as MUSI 3942 and MUSI 3640. Same course as MUSI 3640. Prerequislte(s): MUSI 3712 with a minimum grade of "C"; and MUSI 3832 with a minimum grade of "C"; AND concurrent enrollment in MUSI 3852 OR MUSI 3862; OR consent of instructor.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3642 English and Italian Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing standard English and Italian through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard English and Italian vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3652 French Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing in French through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard French vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3662 German Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing in German through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard German vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3672 Music Technology II
Prerequisites: MUSI 3592 with a minimum grade of "C".
Description: This course is a continuation of MUSI 3592. Music technology is a significant force in many aspects of contemporary music. This is especially apparent in the "pop" world (examples including amplification effects, synthetic instruments, music videos, and performance augmentation), but technology is not limited to this genre alone. MUSI 3672 will focus on acoustics, recording techniques, sound design and sound effects.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3712 Basic Conducting
Description: Principles of conducting choral and instrumental groups.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3722 Advanced Ensemble Conducting
Prerequisites: MUSI 3712 with a minimum grade of "C".
Description: Studies in advanced physical conducting techniques and score orientation, score reading, score analysis, and score interpretation.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3732 Secondary Choral Methods
Prerequisites: MUSI 3712 with a minimum grade of "C".
Description: Repertoire, rehearsal procedures, and vocal techniques for the public school choral teacher.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3741 Survey of Rock and Roll I
Description: An examination of the cultural and musical elements that led to the advent of Rock and Roll, through an exploration of the evolution of the music from its inception to 1980 through lecture, reading and musical recordings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3751 Survey of Rock and Roll II
Description: An examination of the cultural and musical elements that led to the advent of Rock and Roll, through an exploration of the music from 1980 to the present.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3753 History of Music to 1600 (H)
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from antiquity through the Renaissance period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3763 History of Music from 1600-1800
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from the Baroque period through to the Classical period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3772 Counterpoint
Prerequisites: (MUSI 2562 with a minimum grade of "C" or MUSI 2563 with a minimum grade of "C") and consent of instructor.
Description: Analysis and application of contrapuntal techniques of the 18th century. Students will be expected to have successfully passed the Upper-Division Theory Barrier Exam before enrolling in the course.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3783 Form And Analysis
Prerequisites: MUSI 2552 with minimum grade of "C" and successfully pass the Upper-Division Theory Barrier Exam.
Description: Analysis of standard repertoire with emphasis on form and structural harmonic analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3832 Elementary Music Methods
Prerequisites: MUSI 2722 with a minimum grade of "C".
Description: An overview of effective methods, techniques and materials for teaching music to children in the elementary grades. Theories of child development and implications on music learning; current philosophies or approaches for teaching music (Kodaly, Orff, and Dalcroze); designing and teaching musical activities through which children learn musical concepts and develop musical skills. Previously offered as MUSI 2832.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3842 Marching Bands Methods
Prerequisites: MUSI 2722 with a minimum grade of "C" and (MUSI 3832 with a minimum grade of "C" or concurrent enrollment) and (concurrent enrollment in MUSI 2610 or MUSI 3610 (marching band)).
Description: Organizational responsibilities and charting for public school marching bands. Must be taken concurrently with MUSI 2610 or MUSI 3610 (marching band).
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3852 Secondary Instrumental Methods
Prerequisites: MUSI 3712 with a minimum grade of "C" and MUSI 3832 with a minimum grade of "C".
Description: This course is designed to give instrumental music education majors an in-depth look at administering a public school band program, including history and wind literature, literature selection, preparing budgets, preparing commissioning projects, working with administration, school boards and parent groups, organizational responsibilities, and charting for public school marching bands.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3862 String Orchestra Methods
Prerequisites: MUSI 2722 with a minimum grade of "C".
Description: This course is designed to give string music education majors an in-depth look at administering a public school orchestra program, including history and string literature, literature selection, preparing budgets, working with administration, school boards and parent groups, organizational responsibilities, and concepts specifically related to string teaching and learning.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3873 History of Music from 1800-Present
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from the Romantic period through to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3883 History of Popular Music
Description: A survey of popular music, the course traces its developments and explores its derivatives until present day. In addition to music analysis, discussion on the subject explores the appeal of popular music, the means of dissemination, and society. May not be used for degree credit with MUSI 2763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3901 Junior Recital
Prerequisites: Junior standing and consent of major applied music teacher.
Description: The objective of this course is to prepare and perform a junior recital that meets the necessary artistic and technical standards expected of a junior music major.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3932 Intermediate Music Methods
Prerequisites: MUSI 3832 with a minimum grade of "C".
Description: Second in a series of three methods courses for vocal music education majors. Hands-on teaching experiences. Topics include curriculum design and evaluation; technology for music instruction; repertoire selection and effective rehearsal techniques. Previously offered as MUSI 2832.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4042 Collaborative Piano I
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to various collaborative works focusing on vocal repertoire from early Italian songs written in the late Renaissance era through the music of our times. This course will feature class performance and coaching sessions, and discussions of style and practical rehearsal techniques, with listening and reading assignments. Through the course, students will learn the art of collaborating with vocalists. No credit for students with credit in MUSI 5042.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4051 Introduction to Woodwind Repair and Maintenance
Description: Beginning woodwind repair and maintenance involves hands-on instruction on basic repair for woodwind instruments, including saxophone, clarinet, and flute. Woodwind repair experts will guest lecture in addition to the primary instructor.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4080 Music Composition
Prerequisites: Consent of instructor, MUSI 2080.
Description: Practical experience in musical composition. Offered for 2 credit hours, maximum of 12.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4100 Music Industry Internship
Prerequisites: 90 credit hours and minimum 2.50 GPA in all music and business courses.
Description: Directed practical experiences in an approved work situation related to the music industry. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4142 Collaborative Piano II
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to duo/chamber repertoire written for piano with various instruments. This course will feature class performances, discussions of style and practical techniques in rehearsal, and recital performances as a collaborative pianist. The course will focus on repertoire from the Baroque era to the present, including works for solo instruments and piano, duo sonatas, character pieces, and chamber music for 3 or more instruments. May not be used for degree credit with MUSI 5142.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4250 Major Organ
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4260 Major Piano
Prerequisites: MUSI 3260 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4270 Major Voice
Prerequisites: MUSI 3270 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4280 Major Violin
Prerequisites: MUSI 3280 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4290 Major Viola
Prerequisites: MUSI 3290 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4300 Major Cello
Prerequisites: MUSI 3300 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4310 Major Double Bass
Prerequisites: MUSI 3310 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4340 Major Flute
Prerequisites: MUSI 3340 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4350 Major Oboe
Prerequisites: MUSI 3350 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4360 Major Clarinet
Prerequisites: MUSI 3360 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4370 Major Saxophone
Prerequisites: MUSI 3370 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4380 Major Bassoon
Prerequisites: MUSI 3380 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4390 Major Trumpet
Prerequisites: MUSI 3390 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4400 Major French Horn
Prerequisites: MUSI 3400 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4410 Major Trombone
Prerequisites: MUSI 3410 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4420 Major Euphonium
Prerequisites: MUSI 3420 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4430 Major Tuba
Prerequisites: MUSI 3430 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4440 Major Percussion
Prerequisites: 3440 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4450 Major Harpsichord
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4480 Elective Applied Lessons
Prerequisites: Permission of instructor.
Description: Applied lessons for non-music majors or for majors studying secondary instruments.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4490 Major Applied Lessons
Prerequisites: Pass Upper Division Exam and MUSI 2490.
Description: Offered for variable credit, 1-4 credit hours, maximum of 24 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Music
Additional Fees: Music Instruction fee of $35 per credit hour and Music Instruction fee of $24 apply.

MUSI 4600 Chamber Ensembles
Description: Combinations of voice, keyboard, and orchestral instruments for performing chamber music, music theater and duo piano repertoire. Same course as MUSI 5600. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 4700 Piano Accompanying
Prerequisites: Music major status or consent of instructor.
Description: The course is designed for piano students to develop techniques needed to study, analyze, and perform as accompanists. The piano majors will have one-hour weekly coaching sessions and learn various duo repertoire in collaborations with a vocalist and an instrumentalist assigned by the instructor of the course throughout the semester. Same course as MUSI 5700.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4742 Student Teaching Seminar in Music Education
Prerequisites: MUSI 3832 with a minimum grade of "C".
Description: This course is designed to foster the growth of skills necessary for successful music teaching in the public schools. Taught in conjunction with MUSI 4940, student teaching in the public schools. In-class seminars and on-line discussions will focus on current trends, issues, and challenges facing music educators today. Previously offered as MUSI 3743.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Music

MUSI 4810 Problems in Musical Composition
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Practical experience in musical composition. May not be used for degree credit with MUSI 5810. Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4812 Performance and Analysis
Prerequisites: Junior standing as a music major or consent of instructor.
Description: An overview of the relationship between performance and analysis within the field of music theory. No degree credit for students with credit in MUSI 5812.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4840 Special Studies in Music Literature
Prerequisites: Junior standing or consent of instructor.
Description: Survey of music literature suitable for teaching various levels in applied music. Offered for fixed credit, 2 fixed credit hours, maximum of 4 credit hours.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4842 Choral Literature for the Classroom
Prerequisites: MUSI 3732 with a minimum grade of "C".
Description: Exploration of the vast amount of choral literature available to the choral conductor. Includes repertoire for all ages and all voices.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4890 Special Studies in Music Pedagogy
Prerequisites: Junior standing or consent of instructor.
Description: Survey of music pedagogical methods suitable for various levels and types of applied music. May not be used for degree credit with MUSI 5890. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4901 Senior Recital
Prerequisites: Senior standing and permission of major applied music teacher.
Description: The objective of this course is to prepare and perform a senior recital that meets the necessary artistic and technical standards expected of a senior music major.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4912 Orchestration and Arranging
Prerequisites: Upper-division standing as a music major or consent of instructor.
Description: Orchestrating for instrumental ensembles and arranging for choral ensembles.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4940 Student Teaching in Public School Music
Prerequisites: Full admission to Professional Education.
Description: Directed observation, seminars, and supervised student teaching in selected elementary and secondary music programs. Graded on a pass-fail basis. Offered for variable credit, 6-10 credit hours, maximum of 10 credit hours.
Credit hours: 6-10
Contact hours: Contact: 6-10 Other: 6-10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music
Additional Fees: Music Teaching fee of $25 applies.

MUSI 4952 Music in the School Curriculum
Description: Aims, content and motivation of the music education program in elementary and secondary schools from the standpoint of the classroom teacher, music specialist and administrator. May not be used for degree credit with MUSI 5952.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4962 Music Education Seminar
Description: Research into latest developments of public school choral and instrumental music. May not be used for degree credit with MUSI 5942.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4972 Post Tonal Analysis
Prerequisites: MUSI 2552 with minimum grade of "C" and successfully pass the Upper-Division Theory Barrier Exam.
Description: Techniques for the analysis of music from the 20th and 21st centuries, including set analysis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4990 Selected Studies in Music and Music Education
Description: Short-term area studies in music and music education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided program in musicological research, music composition, or music performance, ending with an honors project under the direction of a faculty member with a second faculty member to complete an examining committee. Required for graduation with departmental honors in music.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music
General Education and other Course Attributes: Honors Credit

MUSI 5002 Final Degree Performance
Description: Prepare and perform or conduct a public concert or recital of significant repertoire.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5012 Final Degree Project and Oral Examination
Description: Final capstone project in performance or conducting as assigned by disciplinary area, and cumulative oral examination before a designated committee of faculty. Detailed information on acceptable projects are found in the Graduate Music Student Handbook. Previously offered as MUSI 5004.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5022 Graduate Theory Review
Description: Designed as a review of musical analysis materials and techniques necessary to prepare students for further studies in music analysis at the graduate level. Enrollment is mandated or encouraged based on entrance exam scores.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5032 Graduate History Review
Description: A review of the development of Western European art music from the medieval era to the present day to enable graduate students to study music history at the graduate level. Enrollment is mandated or encouraged based upon entrance exam scores.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5042 Collaborative Piano I
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to various collaborative works focusing on vocal repertoire from early Italian songs written in the late Renaissance era through the music of our times. This course will feature class performance and coaching sessions, and discussions of style and practical rehearsal techniques, with listening and reading assignments. Through the course, students will learn the art of collaborating with vocalists. May not be used for degree credit with credit in MUSI 4042.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5051 Introduction to Woodwind Repair and Maintenance
Description: Beginning woodwind repair and maintenance involves hands-on instruction on basic repair for woodwind instruments, including saxophone, clarinet, and flute. Woodwind repair experts will guest lecture in addition to the primary instructor.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5113 Introduction to Graduate Studies in Music
Prerequisites: Admission to Master of Music program.
Description: Understanding of the resources available for research in the field of music. Explanation of the types of research materials needed for classes in the Master of Music degree program, as well as providing the groundwork for success in the professional world as a music educator and performer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5142 Collaborative Piano II
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to duo/chamber repertoire written for piano with various instruments. This course will feature class performances, discussions of style and practical techniques in rehearsal, and recital performances as a collaborative pianist. The course will focus on repertoire from the Baroque era to the present, including works for solo instruments and piano, duo sonatas, character pieces, and chamber music for 3 or more instruments. May not be used for degree credit with MUSI 4142.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5480 Lessons in Applied Music (Minor Field)
Prerequisites: Bachelor's degree or equivalent performance level in applied major field.
Description: Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5490 Lessons in Applied Music (Major Field)
Prerequisites: Bachelor's degree or equivalent performing level in applied major field.
Description: Private Lessons. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5512 Advanced Studies in Music Literature and Pedagogy I
Prerequisites: MUSI 3753, MUSI 3763 or equivalent.
Description: Techniques of successful programming, teaching and performance of ensemble literature through a survey of repertoire appropriate to the student's chosen medium.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5522 Advanced Studies in Music Literature and Pedagogy II
Prerequisites: MUSI 3753, MUSI 3763 or equivalent.
Description: A continuation of MUSI 5512, with emphasis upon music of the 20th century and its attendant specialized performance techniques.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5600 Chamber Ensembles
Description: Combinations of voice, keyboard, orchestral instruments for performing chamber music, music theater and duo piano repertoire. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5610 University Bands
Description: Advanced study of a wide variety of music in all areas of band literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5620 Symphony Orchestra
Description: Advanced study of a wide variety of music in all areas of orchestral literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 4-8 Contact: 4-8
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5630 University Choral Ensembles
Description: Advanced study of a wide variety of music in all areas of choral literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5700 Piano Accompanying
Prerequisites: Music major status or consent of instructor.
Description: The course is designed for piano students to develop techniques needed to study, analyze, and perform as accompanists. The piano majors will have one-hour weekly coaching sessions and learn various duo repertoire in collaborations with a vocalist and an instrumentalist assigned by the instructor of the course throughout the semester. Same course as MUSI 4700.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5712 Advanced Studies in Conducting I
Prerequisites: MUSI 3712 and MUSI 3722 or equivalent.
Description: Acquisition of an expressive conducting gestural vocabulary as it relates to the student's chosen medium.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5722 Advanced Studies in Conducting II
Prerequisites: MUSI 5712.
Description: A continuation of MUSI 5712 focusing upon the gestural vocabulary as it relates to the specific complexities of contemporary music.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5733 Techniques of Pedagogy and Performance
Prerequisites: MUSI 3712 and MUSI 3722 or equivalent.
Description: Advanced techniques and modes for preparing music for performance.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5742 Conducting Practicum
Prerequisites: MUSI 5712, MUSI 5722.
Description: Supervised conducting opportunities with major OSU ensembles or approved off-campus ensembles.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5750 Seminar in Music History
Prerequisites: MUSI 3753 and MUSI 3763 or equivalent.
Description: Major European musical genres and pedagogical methods of a specified time in musical history. Acquaintance with source materials from the specified period to facilitate a knowledge of performance of genres studied. Topics vary. Previously offered as MUSI 5753. Offered for varied, 1-3 varied credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5810 Problems in Musical Composition
Prerequisites: Consent of instructor.
Description: Practical experience in musical composition. May not be used for degree credit with MUSI 4810.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5812 Performance and Analysis
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: An overview of the relationship between performance and analysis within the field of music theory. No degree credit for students with credit in MUSI 4812.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5842 Music Repertory
Description: Survey of music literature suitable for teaching various levels in applied music.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5890 Special Studies in Music Pedagogy
Description: Survey of music pedagogical methods suitable for various levels and types of applied music. May not be used for degree credit with MUSI 4890.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5942 Music Education Seminar
Description: Research into latest developments of public school choral and instrumental music. May not be used for degree credit with MUSI 4942.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5952 Music in the School Curriculum
Description: Aims, content and motivation of the music education program in elementary and secondary schools from the standpoint of the classroom teacher, music specialist and administrator. May not be used for degree credit with MUSI 4952.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5962 Analytical Techniques in Music I
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: A critical survey of important analytical approaches to tonal and post tonal music.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5972 Analytical Techniques in Music II
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: A continuation of MUSI 5962. Topics will include Schenkerian analyses, set theory, and other contemporary analytical approaches to post tonal music.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5990 Selected Studies in Music
Description: Short-term area studies in music and music education. Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

Music Industry (MSIN)

MSIN 1011 Class Piano I
Prerequisites: Music industry major status or consent of instructor AND (MUSI 1532 with a minimum grade of "C" OR concurrent enrollment in MUSI 1532)
Description: The first group piano class of a two-course sequence prepares music industry majors in the development of functional piano skills necessary for songwriting and programming/recording. Students will learn to play one octave scales, root position triads, and simple chord progressions associated with popular music. Basic fluency in musical notation is assumed before taking the course.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MSIN 1021 Class Piano II
Prerequisites: Music industry major status or consent of instructor AND MSIN 1011 with a minimum grade of "C".
Description: The second group piano class of a two-course piano sequence prepares music industry majors to continue to develop more advanced functional piano skills necessary for songwriting and programming/recording. Students will learn to play two octave scales, slash chords and inverted triads, and advanced chord progressions associated with popular music.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MSIN 2012 Popular Music Theory I
Prerequisites: MUSI 1532.
Description: This course is a continuation of MUSI 1532. The course will focus on jazz and popular music theory, including elementary principles of popular chord voicings and arrangements, chord scale relationships, blues, AABA and other song forms.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 2022 Popular Music Theory II
Prerequisites: MSIN 2012.
Description: This course is a continuation of MSIN 2012. The course will focus on advanced jazz and popular concepts and music theory.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 3002 Fundamentals of Music Production
Prerequisites: Music industry major or consent of instructor.
Description: Course introduces concepts and principles related to DAW software, exploring the basics of music recording and production.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 3012 Studio Music Production
Prerequisites: MSIN 3002.
Description: A continuation of MUSI 3002, the course explores techniques and practices related to making sound recordings in a recording studio.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 3052 Social Media for Music Industry
Prerequisites: Music industry major status or consent of instructor.
Description: This course explores the promotion of music and musical artists using social media.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 3132 Lighting for Music
Prerequisites: Music industry major or consent of instructor.
Description: Course explores the vocational and theoretical approaches of lighting to accompany live music, ranging from predetermined design to improvisational lighting that mirrors the music. The course also prepares students for music tours.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 3142 Sound Reinforcement
Prerequisites: Music industry major or consent of instructor.
Description: Course explores techniques and practices related to sound reinforcement for live entertainment. The objective of the course is to prepare students to run sound for front of house.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MSIN 4990 Special Topics in Music Industry
Prerequisites: Music industry major or consent of instructor.
Description: Short-term area studies in music industry.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

Natural Resource Ecology & Management (NREM)

NREM 1012 Introduction to Natural Resource Ecology and Management
Description: Introduction to the wide variety of natural resources found globally with a focus on Oklahoma ecoregions. Overview of the ecology and management of natural resources in the pine-hardwood forest, the Cross Timbers, and the tallgrass, mixed-grass and shortgrass prairies. Academic and career options presented through guest speakers.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 1014 Introduction to Natural History (LN)
Description: The study of living organisms especially their origins, life histories, behaviors, conservation, and unique adaptations for reproducing and relating to their environment. Laboratory emphasis is on observation and investigation of the diversity and adaptations of living organisms.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

NREM 1113 Elements of Forestry
Description: Survey of forestry as an art, science and profession including forestry and natural resource management theory, forest distribution and ownership, history of forest resource policy development, forest protection, wildlife interactions, forest ecosystem process, current issues, and career opportunities. Previously offered as NREM 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 1213 Introduction to Wood Properties and Products
Prerequisites: NREM 1113 or instructor permission
Description: Anatomical, physical and mechanical properties of solid wood and wood products. Macroscopic and microscopic identification of wood. Principles of manufacture of lumber, plywood and wood composites. Biological deterioration of wood and main wood preservation techniques. One weekend field trip required. Previously offered as NREM 1214.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2013 Ecology of Natural Resources
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or PLNT 1213.
Description: Introductory focus on understanding and applying general ecological principles to agricultural and natural ecosystems. Emphasis on relationships between climate, soils, agricultural, and natural ecosystems. Topics include nutrient cycles, energy flow, species interactions, biological diversity, productivity, sustainability, and landscape and ecosystem management. Previously offered as RLEM 2913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 2083 Geospatial Technologies for Natural Resources
Prerequisites: MATH 1513.
Description: Principles and application of geospatial technologies for natural resource ecology and management including remote sensing (serial photography and satellite data), geographic information systems (GIS) and global positioning system (GPS) technologies. Previously offered as NREM 3083.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2113 Wood Properties, Products, & Harvesting
Description: Management and planning of timber harvesting, including products derived from wood. Harvesting techniques, safety and cost analysis. Anatomical, physical and mechanical properties of solid wood and wood products. Macroscopic and microscopic identification of wood. Manufacture of lumber and wood composites, including wood preservation to prevent deterioration. Previously offered as FOR 2002, FOR 2113 and NREM 2112.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2134 Dendrology
Description: Identification, taxonomy and distribution of forest trees and shrubs of the United States; their environmental requirements and utilization. Previously offered as FOR 2134.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3012 Applied Ecology Laboratory
Prerequisites: NREM 3013 or concurrent, NREM major or instructor permission.
Description: Field experience aimed at navigating and working effectively and safely in the natural environment. Identification, measurement and interpretation of abiotic and biotic components to understand and describe ecosystem function and current natural resource management tools and issues. Focus on representative forest, grassland and aquatic ecosystems.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt
Additional Fees: NREM or FOR Course Field Trip fee of $46 applies.

NREM 3013 Applied Ecology and Conservation
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111), or BIOL 1604, or PBIO 1404, or PLNT 1213; Sophomore, Junior, or Senior class standing; SOIL 2124 preferred.
Description: Development of critical thinking for conservation and land management through the application of ecological concepts and theory. Principles of population, community, ecosystem and landscape ecology, with applications to management of wildlife, fisheries, forest and rangeland resources. Application of scientific method and literature to natural resource ecology and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3063 Natural Resource Biometrics
Prerequisites: STAT 2013; and MATH 1513 or MATH 1483.
Description: Application of statistical concepts to problems in natural resource sampling and estimation including simple random sampling, stratified sampling, regression analysis, double sampling and ratio and regression estimation. Statistical analysis using spreadsheets. Applications to forest, range and wildlife management. Previously offered as NREM 3363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3091 Field Applications of Geospatial Technologies for Natural Resources
Prerequisites: NREM 2083.
Description: Field-based use of global navigation satellite systems, geographic information systems and topographic maps to measure and interpret the environment with application to fishery, forest, range, and wildlife planning and management.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3101 Forest Resource Field Studies
Prerequisites: NREM 2134 and PBIO 1404 and SOIL 2124.
Description: One-week summer presession field experience at an off-campus site. Field study in the dynamics of forest ecosystems and related components including trees, soils, water, fauna, and associated flora as they relate to site productivity and the production of resource outputs, products, and services. Previously offered as NREM 3112.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3111 Natural Resource Field Studies
Description: One-week summer presession field experience at off-campus site. Field study, analysis, and assessment of natural resource ecosystems at multiple scales with application to integrated management of forest, wildlife, range, water, soil, and recreation resources to sustain a broad array of uses and values, and to understand associated ecological, social, policy, and ethical issues. Includes visits to private and public natural resource lands and projects. Previously offered as FOR 3103 and NREM 3103.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3123 Forest Measurements I
Prerequisites: MATH 1513; STAT 2013 (or concurrent).
Description: Measurement of trees, forests, and forest products. Application of mensurational techniques to forest growth and productivity. Methods of forest sampling and inventory. Use of topographic maps, U.S. Public Land Survey system maps, global navigation satellite systems and mapping software. Previously offered as NREM 2103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3133 Forest Measurements II
Prerequisites: NREM 2134 and NREM 3123.
Description: Forest-level measurements emphasizing statistical and tactical design of forest inventory methods with application and implementation in the field. Principles of forest growth and yield. Analysis, interpretation and presentation of data. Creation of professional reports. Overnight fieldtrips required. Previously offered as NREM 3102.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3143 Forest Biology
Prerequisites: PBIO 1404.
Description: The response of trees and forest ecosystems to biotic and abiotic factors. Understanding of life history traits, tree structure, and genetics as they relate to the establishment, growth, and regeneration of species. Application of physiological and ecological principles in predicting the effects of resource availability, site quality, and competition on tree growth, forest growth, and community interactions. Previously offered as NREM 4213 and FOR 4563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3153 Forest Health and Disturbance Ecology
Prerequisites: NREM 2013, or (NREM 3012 and NREM 3013), or BIOL 3034.
Description: Dynamics of ecological disturbance, resilience and recovery in forests. Natural role of fire in forest ecosystems and theory of fire behavior. Traits, population dynamics, and life cycles of major diseases and insect groups related to infestations and outbreaks that threaten forests. Previously offered as NREM 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3224 Silviculture
Prerequisites: NREM 2013, or NREM 3012 and NREM 3013, or BIOL 3034.
Description: Theory and practice of controlling forest establishment, composition, structure, and growth to achieve multiple objectives including timber production, wildlife habitat, water quality, forest health, and recreation. Principles and techniques related to regeneration, thinning, prescribed fire, and harvest methods to increase the productivity, resilience, and output of desired ecosystem services. A two-day field trip is required. Previously offered as NREM 3223.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3502 Wildlife Law Enforcement
Prerequisites: Junior standing and consent of instructor.
Description: Survey of state and federal wildlife laws with emphasis on Oklahoma statutory and regulatory laws pertaining to wildlife. Lectures, guest lectures, videotapes and field exercises. Previously offered as COSC 3502 and ZOOL 3502.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3503 Principles of Wildlife Ecology and Management
Prerequisites: NREM 3013 or BIOL 3034 or concurrent.
Description: An introduction to the biological basis of the management of wildlife habitats and populations. Previously offered as NREM 4513, ZOOL 4513, WLDL 4513, and COSC 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3523 Fish and Wildlife Population Biology
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034 or concurrent enrollment.
Description: Dynamics of fish and wildlife populations resulting from reproduction, competition, predation, movement, and exploitation. Effects of life history patterns on population growth and management strategies. Methods for measuring distribution, abundance, survival, and growth of fish and wildlife populations. Management strategies for fish and wildlife populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3613 Principles of Rangeland Management
Description: Overview of the science of applying ecological principles to managing rangeland resources, including rangeland characteristics; goods and services provided by rangelands; primary threats to rangelands; North American rangeland resources; principles of grazing management and current topics in range management. Previously offered as RLEM 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4001 Issues In Global Change
Prerequisites: (NREM 3012 and NREM 3013) or BIOL 3034.
Description: Student led discussion to learn the causes and consequences of global change and practical implications for natural resource ecology and management.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Natural Res Eco & Mgmt

NREM 4013 Herbaceous Plants of the Great Plains
Description: Identification (by sight and dichotomous key), characteristics (vegetative and floral), ecological/agricultural importance, and management of important native range grasses and broadleaf plant families, genera, and species, with emphasis on rangeland management applications. May not be used for degree credit with NREM 5013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4023 Restoration Ecology
Prerequisites: 40 semester credit hours.
Description: Application of ecological theory to the practice of ecological restoration to improve populations, communities, and ecosystems degraded directly or indirectly by human activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4033 Ecology Of Invasive Species
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111); (PBIO 1404 and BIOL 1604 recommended).
Description: Ecological principles and their application to invasive species. Population level characteristics; community and ecosystem level effects of a wide variety of taxa including microbial, fungal, plant invertebrate, and vertebrate examples. Global consequences and governmental policies/programs designed to limit the spread of invasives. Same course as ENVR 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4043 Natural Resource Administration and Policy
Prerequisites: Senior standing.
Description: Natural resource policy and legislation; ethics relating to natural resources; natural resource organizations and how they function to include structure, supervision, and financing of federal, state, and private natural resource enterprises. Previously offered as NREM 4343 and FOR 4443. May not be used for degree credit with NREM 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4053 Natural Resource Recreation
Description: Ecological, historical, social and policy basis for recreational use and management of natural resources, including an analysis of planning, management, and administrative frameworks for providing a diversity of recreational opportunities, benefits, and resource values. Previously offered as NREM 4353 and FOR 4553. May not be used for degree credit with NREM 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4093 Natural Resources, People and Sustainable Development (G)
Description: Relationship between people, the land, and associated natural resources in the developing world, including the ecological and cultural basis for resource use and development. Examines issues of traditional agriculture and deforestation, and explores sustainable strategies for land use, resource management, and community development. Includes two-week study abroad component. Previously offered as NREM 4393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt
General Education and other Course Attributes: International Dimension

NREM 4234 Forest Management and Economics
Prerequisites: NREM 3133, NREM 3224 and AGEC 1113.
Description: Regulation of forest growing stock to meet financial and biological management objectives; stand level optimization; linear programming principles in harvest scheduling; timberland taxation; timberland investment criteria; risk and uncertainty in timberland investment; economics of non-market goods. Previously offered as NREM 4323.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4333 Forest Resource Management: Planning and Decision-Making
Prerequisites: NREM 4234.
Description: Integrated problem solving, to apply biological, quantitative, economic, political, and administrative principles in solving forest resource management problems. Previously offered as FOR 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4403 Wetland Ecology and Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034 or consent of instructor.
Description: Ecology, classification, restoration, and management of wetlands. Adaptations of wetland plants and animals, structure and function of wetlands, field identification of wetland plants, restoration techniques, wetland classification systems, management and conservation of wetlands, and regulatory processes. Previously offered as COSC 4403 and ZOOL 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4414 Fisheries Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Techniques and principles involved in management of fishes. Field trip fee required. Previously offered as COSC 4414, ZOOL 4414, and ZOOL 4524. May not be used for degree credit with NREM 5414 or NREM 5433.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4424 Fisheries Techniques
Prerequisites: NREM 4414.
Description: Research techniques and methodology in fisheries science, including sampling design, habitat measurements, sampling gears and abundance estimation, age and growth analysis, recreational surveys, data analysis, and report writing. No credit for students with credit in NREM 5424. Previously offered as COSC 4424.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4443 Watershed Hydrology and Water Quality
Description: Processes that comprise the hydrologic cycle and how land use affects those processes and the quantity and quality of water from watersheds, focusing on surface water from forest, range and agricultural watersheds. Measurement and evaluation of water quantity and quality. Previously offered as NREM 4413 and FOR 4813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4452 Pond Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Principles and practice of aquatic plant management, pond construction, and maintenance, fish population management, and human factors associated with pond ownership and management. No credit for students with credit in NREM 5452.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4453 Aquaculture
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Introduction to the principles of freshwater finfish production with an emphasis on warm water species. No credit for student having completed NREM 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4464 Ornithology
Prerequisites: BIOL 1604.
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. Same course as BIOL 4464. May not be used for degree credit with BIOL 5464, NREM 5564.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt
Additional Fees: NREM or FOR Course Field Trip fee of $53 applies.

NREM 4522 Wildlife Management Applications and Planning
Prerequisites: NREM 4523 or concurrent.
Description: Applications of wildlife research and monitoring techniques to inventory and assess wildlife populations. Data collection methods, habitat assessment, and management plan development. Field trips required.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 4523 Wildlife Management Techniques
Prerequisites: NREM 3503; ENGL 3323 strongly recommended.
Description: Theoretical and conceptual basis for research and management techniques in wildlife science. Experimental design, wildlife population and habitat analysis, wildlife and vegetation sampling, habitat management techniques, and aging and sexing techniques. Previously offered as COSC 4524, COSC 4523, ZOOL 4523, NREM 4524.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4533 Wildlife Management for Game Species
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034; and NREM 3503.
Description: Life history attributes and habitat relationships of game species relative to life history strategies; conservation and management strategies for game species; and federal and state policies influencing game species management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4543 Wildlife Management for Biodiversity
Prerequisites: NREM 3013 and NREM 3503 recommended.
Description: Identification, life history, and conservation management issues affecting non-game species in North America, stressing rare, threatened, and endangered species occurring in Oklahoma. Principles of landscape ecology, wildlife management, and conservation biology applied to management scenarios aimed at recovery of rare species and biodiversity conservation at broad scales. Previously offered as COSC 4543 and ZOOL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4603 Rangeland and Pasture Utilization
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. Same course as ANSI 4203. May not be used for degree credit with NREM 5603.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4613 Rangeland Resources Planning
Prerequisites: 40 semester credit hours including NREM 3613 and ANSI 3653.
Description: Inventory of ranch resources, survey and evaluation of ranch practices, and economic analysis. Development of a comprehensive ranch management plan. Managing rangeland and ranch resources in a social context. Written and oral reports. Field trips required. Same course as ANSI 4973. Previously offered as RLEM 4973 and AGRN 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4741 Wildland Firefighter Training
Description: Training for Type 2 (FFT2) wildland firefighting positions with US government agencies. Provides qualifications to participate in prescribed fire and other wildland fire operations Including: ignition, control, mop-up, suppression, and monitoring.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4783 Prescribed Fire
Prerequisites: NREM 3613.
Description: When to use prescribed fire and how to use prescribed fire to accomplish specific land management objectives. Writing prescribed fire plans, policy and laws, weather, equipment, conducting burns, and post-burn mop-up. Previously offered as RLEM 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4793 Advanced Prescribed Fire
Prerequisites: NREM 4783 or consent of instructor.
Description: Preparing fire plans and executing prescribed fires as the fireboss. No credit for both NREM 4793 and NREM 5793. Previously offered as RLEM 4993.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4960 Undergraduate Internship
Prerequisites: Consent of instructor.
Description: Supervised internship with an approved natural resource business, government agency, or nongovernment organization, including a diversity of learning opportunities in a work environment. For every hour of credit, 45 hours of work are required. Graded on a pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 4980 Undergraduate Research
Prerequisites: GPA of 2.50 or better and consent of instructor.
Description: Participation in faculty research or execution of a research problem formulated by the student. Previously offered as FOR 4500. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 4990 Special Topics in Natural Resource Ecology and Management
Description: Advanced topics and new developments in natural resource ecology and management. Previously offered as RLEM 4990. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5000 Master's Thesis Report
Description: Independent research planned, conducted and reported in consultation with a major professor. Previously offered as RLEM 5000. Offered for variable credit, 1-12 credit hours, max 12 (Thesis) 4 (Report).
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5013 Herbaceous Plants of the Great Plains
Description: Identification (by sight and dichotomous key), characteristics (vegetative and floral), ecological/agricultural importance, and management of important native range grasses and broadleaf plant families, genera, and species. May not be used for degree credit with NREM 4013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5020 Graduate Seminar
Description: Special topics in Natural Resource Ecology and Management; philosophy, methods and interpretation of research. Previously offered as RLEM 5020. Offered for fixed credit, 1 credit hour, maximum of 10 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5023 Restoration Ecology
Description: Application of ecological theory to ecological restoration with the goal of improving populations, communities and ecosystems degraded directly or indirectly by human activities. Case studies and applications of ecological principles to restorations across circumstances and systems will be discussed. May not be used for degree credit with NREM 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5030 Special Problems in Natural Resource Ecology and Management
Description: Special problems in areas of natural resource ecology and management other than those covered in the student's thesis research. Previously offered as FOR 5030. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5033 Ecology of Invasive Species
Description: Ecological principles and their application to invasive species. Discussion of population level characteristics and community and ecosystem level effects of a wide variety of taxa including invasive microbial, fungal, plant, invertebrate, and vertebrate examples. Current global consequences and governmental policies/programs designed to limit the spread of invasives. May not be used for degree credit with NREM 4033 or ENVR 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5043 Ecology and Evolution of Symbiosis
Description: Ecology and evolution of symbiotic and mutualistic interactions in different ecosystems. Theory, current questions, and general patterns involving biotic interactions of plants and animals with other plants, animals, or microbes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5053 Global Ecology and Biogeochemistry
Description: Examines key nutrient pools and transformations in the atmosphere, soils, and hydrosphere, with an emphasis on the role of living organisms in nutrient transformations and fluxes. Emphasis placed on processes relevant to biogeochemical cycles at ecosystem and global scales in reference to aspects of global change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5063 Production Ecology
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Mechanisms driving the growth and productivity of terrestrial ecosystems in response to resource availability, genetics, disturbance, and climate. Factors affecting the distribution and productivity of biomes, relationship between leaf area and productivity, effects of diversity on productivity, the proximal causes of increased growth associated with resource additions, and using process models to predict growth. Previously offered as NREM 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5073 Modeling Ecosystem Processes and Species Distributions
Prerequisites: Basic understanding of population ecology and statistics strongly encouraged.
Description: Theories of modeling ecosystem processes and species distributions; model building; applying models with real data. No prior modeling experience is expected. Basic understanding of ecology and statistics strongly encouraged.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5083 Applied Landscape Ecology
Description: Advanced ecology and management of grasslands, shrublands, and forests. Understanding the effects of grazing, fire and other disturbances on biotic and abiotic processes. Vegetation dynamics, wildlife habitat evaluation, woody plant encroachment, rangeland monitoring, and landscape ecology. Field trips required at additional cost to students. Previously offered as NREM 5054.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5130 Topics In Forestry
Description: Advanced study on special topics in forestry. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 5133 Advanced Topics in Forest Biometrics
Prerequisites: NREM 3063 or equivalent; STAT 5013 concurrently or equivalent.
Description: Quantitative description of forest populations and methods for modeling forest growth and development. Sampling techniques for forest populations. Previously offered as FOR 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5193 Spatial and Non-Spatial Database Management
Prerequisites: One course in statistics and programming experience.
Description: Methods of acquiring, managing and analyzing spatial data using geographic information systems. Management of non-spatial data using relational database managers. Development of applications using these tools for evaluating and managing natural resources. Previously offered as SOIL 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5234 Forest Management and Economics
Description: Regulation of forest growing stock to meet financial and biological management objectives; stand level optimization; linear programming principles in harvest scheduling; timberland taxation; timberland investment criteria; risk and uncertainty in timberland investment; economics of non-market goods. May not be used for degree credit with NREM 4234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5313 Human Dimensions of Natural Resources
Description: Principles and applications of managing natural resources in the human social context. Importance of sociology to natural resource management, design of human dimension studies related to use of forest, wildlife, fish, and range resources, complexities and challenges of balancing natural resource sustainability with human needs, and the role of leadership, education, and communication in addressing human-natural resource needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5333 Forest Recourse Management: Planning and Decision-Making
Prerequisites: NREM 4234.
Description: Integrated problem solving, to apply biological, quantitative, economic, political, and administrative principles in solving forest resource management problems. May not be used for degree credit with NREM 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5403 Advanced Wetland Ecology
Prerequisites: A course in aquatic ecology or wetland management recommended.
Description: Principles and theory of wetland ecology with a focus on wetland processes, functions, and services. Topics include wetland geomorphology, biogeochemistry and hydrology of wetlands, wetland functions and services, wetland development, wetland restoration, water issues, wetland policy, philosophy of wetland management, and educating society about wetlands. Same course as BIOL 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5414 Fisheries Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Techniques and principles involved in management of fishes. Field trip fee required. May not be used for degree credit with NREM 4414 or NREM 5433.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5424 Fisheries Techniques
Prerequisites: NREM 4414.
Description: Research techniques and methodology in fisheries science, including sampling design, habitat measurements, sampling gears and abundance estimation, age and growth analysis, recreational surveys, data analysis and report writing. No credit for students with credit in NREM 4424. Previously offered as COSC 5424.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5430 Special Topics in Fisheries
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in fisheries. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5433 Fisheries Science
Prerequisites: NREM 4414 or equivalent or consent of instructor.
Description: Principles of fisheries science as they relate to fish and aquatic biota, their habitats, and the humans who utilize them. Previously offered as COSC 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5443 Watershed Hydrology and Water Quality
Description: Processes that comprise the hydrologic cycle and how land use affects those processes and the quantity and quality of water from watersheds, focusing on surface water from forest, range and agricultural watersheds. Measurement and evaluation of water quantity and quality. Intended for graduate students new to the water resources field. No credit for students having completed NREM 4443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5452 Pond Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Principles and practice of aquatic plant management, pond construction and maintenance, fish population management, and human factors associated with pond ownership and management. No credit for students with degree credit in NREM 4452.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5453 Aquaculture
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Introduction to the principles of freshwater finfish production with an emphasis on warm water species. No credit for student having completed NREM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5473 Stream Ecology
Prerequisites: Course in ecology strongly recommended.
Description: Ecology of streams and rivers, physical and chemical properties, biotic assemblages and interactions, ecosystem processes and theories and human impact. Two day field trip required at additional costs to students. Previously offered as NREM 5464.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5483 Ecohydrology
Prerequisites: Ecology course strongly recommended.
Description: Concepts, framework and challenges in ecohydrology. Soil water control on vegetation structure, function and distribution. Vegetation feedback on water budget in water limited ecosystems. Ecological and hydrological interaction associated with land use, land cover change and climate variability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5493 Social Dimensions in Aquatic Ecology
Prerequisites: Consent of instructor.
Description: Role of humans as implementers of policy, as users of resources, and as scientists in aquatic ecology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5513 Applied Wildlife Behavior
Description: Importance of wildlife behavior to Individual survival, reproduction, and implications for population ecology, community ecology, conservation, and management. Wildlife Is broadly defined In this class; topics Include habitat selection, dispersal, & migration.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5523 Population Ecology
Prerequisites: BIOL 3034, MATH 1513.
Description: Theory and principles of predicting and analyzing population abundance and dynamics. Life history theory, foraging theory, habitat selection, population genetics, and species interactions. Same course as BIOL 5523.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5530 Special Topics in Wildlife
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in Wildlife. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5533 Occupancy Modeling of Animal Populations
Description: Theory and practice for the use of occupancy modeling in natural resource management and ecological research. Topics covered include estimation of encounter probabilities, study design considerations, single-species single-season models, multi-season models, multi-state models, multi-scale models, false-positive models, and multi-species models.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5564 Ornithology
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. May not be used for degree credit with BIOL 4464, NREM 4464. Previously offered as BIOL 5464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5603 Rangeland and Pasture Utilization
Description: Investigation of lifestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. May not be used for degree credit with ANSI 4203 or NREM 4603.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5630 Special Topics in Rangeland Science
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in rangeland science. Previously offered as NREM 5660. Offered for variable credit, 1-3 credit hours, maximum of 9 hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5673 Rangeland Resources Watershed Management
Description: Management of anthropogenic activities and physical/biological functions or processes on water and rangeland watersheds. Emphasizes preventative and restorative strategies in a natural resource rangeland setting. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5682 Grassld Plant Identification
Prerequisites: Consent of instructor.
Description: Study and identification of plants that have ecological and/or agricultural importance in the Great Plains. Grassland ecosystems and plant characteristics including forage value, palatability, and utilization by both domestic livestock and wildlife. Cultural and historical uses of grassland. Course available online only through distance education.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5683 Grazing Ecology and Management
Prerequisites: Graduate standing.
Description: Ecological principles of livestock grazing and applications to grazing land management for production and conservation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5692 Grassland Monitoring and Assessment.
Description: Vegetation sampling theory and plot selection. Quantitative measures used in vegetation analysis, root growth, and utilization. Use of the similarity index, and plant community health and trends for grassland monitoring and assessment. Course available online only through distance education.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5693 Principles of Forage Quality and Evaluation to Ruminate
Prerequisites: Consent of instructor.
Description: Chemical characteristics of forage components and the laboratory procedures used to evaluate forages for grazing livestock. Interactions with ruminant physiology and digestion that influence forage feeding value. Students should have a strong background in the basic principles of chemistry, ruminant nutrition, and plant physiology. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5713 Grassland Fire Ecology
Description: Ecological effects of fire on grassland ecosystems. Examination of the history of fire, societal use of fire, fire behavior in relation to fuel and weather, and conducting and safety of prescribed burns. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5723 Ecol Fire Dependent Ecosystems
Prerequisites: Any ecology course.
Description: Role of fire and the interactions with land use, weather, and climate change in fire-dependent ecosystems. Responses of species composition, diversity, annual net primary productivity, nutrient cycling, and ecosystem management in diverse ecosystems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5783 Prescribed Fire
Description: When to use prescribed fire and how to use prescribed fire to accomplish specific land management objectives. Writing prescribed fire plans, policy and laws, weather, equipment, conducting burns, and post-burn mop-up. Field trips required. Previously offered as RLEM 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5793 Advanced Prescribed Fire
Prerequisites: NREM 4783 or consent of instructor.
Description: Preparing fire plans and executing prescribed fires as the fireboss. No credit for both NREM 4793 and NREM 5793. Previously offered as RLEM 5993.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5843 Natural Resource Administration and Policy
Description: Natural resource policy and legislation; ethics relating to natural resources; natural resource organizations and how they function to include structure, supervision, and financing of federal, state, and private natural resource enterprises. May not be used for degree credit with NREM 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5853 Natural Resource Recreation
Description: Ecological, historical, social and policy basis for recreational use and management of natural resources, including an analysis of planning, management, and administrative frameworks for providing a diversity of recreational opportunities, benefits, and resource values. May not be used for degree credit with NREM 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 6000 Doctoral Dissertation
Description: Independent research planned, conducted and reported in consultation with major professor. Previously offered as RLEM 6000. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Previously offered as RLEM 6010. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

Nursing (NURS)

NURS 2011 Medical Terminology in Nursing
Prerequisites: Accepted as BSN Major and MICR 2123.
Description: This course introduces the beginning student to the study of medical terminology and vocabulary used in the healthcare field.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3000 Registered Nursing Experience/License
Prerequisites: Associate Degree of Diploma in Nursing plus RN license.
Description: Credit to be determined by a successful passing of the NCLEX (National Council Licensing Exam) and holding a current active Registered Nursing License from a state board of nursing. Offered for variable credit, 1-30 credit hours, maximum of 30 credit hours.
Credit hours: 1-30
Contact hours: Contact: 1-30 Other: 1-30
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

NURS 3003 Pharmacology in Nursing
Prerequisites: Admittance to Nursing Program.
Description: Presents core drug knowledge, pharmacotherapeutics, pharmacodynamics and pharmacokinetics. Emphasizes dosage calculation and drug classifications by categories affecting various body systems and disease states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3013 Theoretical and Conceptual Foundations of Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Introduction to concepts and theories pertinent to nursing practice in a variety of healthcare environments. Theories are addressed as frameworks for practice. Historical, legal, cultural, economic, and social factors influencing health care are analyzed. Philosophical perspectives related to professional nursing are considered. Strategies are discussed when analyzing and managing ethical dilemmas and the application of these strategies to health and wellness promotion will be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3018 Foundations of Nursing
Prerequisites: Full admittance into the nursing program.
Description: Examines concepts of physiological integrity, psychosocial integrity, safe, effective care environments, and health promotion/maintenance. Focuses on beginning competencies with an emphasis on health assessment, interpersonal communication, safety, documentation, and selected basic nursing interventions required for clients with acute and chronic health problems.
Credit hours: 8
Contact hours: Lecture: 5 Lab: 9 Contact: 14
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3025 Health Assessment, Wellness and Community Health
Prerequisites: Associate degree or diploma in nursing plus RN license.
Description: Health assessment and its relationship to the prevention and early detection of disease across the life span. Health strategies for communities and diverse populations with social, cultural, environmental, and economic dimensions will be examined. Application of concepts from nursing theorists, core competencies for interprofessional collaborative practice, and the wellness model. Health and wellness promotion in the community will be examined through a clinical component.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3033 Cultural Considerations in Health Care
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Improving cultural awareness, cultural sensitivity and cultural competency among health care professionals. Expands the understanding of cultural diversity in relation to health care beliefs and practices and prepares students to better implement and evaluate individualized plans to improve health care delivery in diverse settings and population groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3043 Global and Public Health
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: An introduction of the main concepts of the global health field and explores the impact of professional nursing on the health and well-being of individuals. Overview of principles and goals related to global health, global health issues, burden of disease and interprofessional collaboration to improve health. Students utilize critical reasoning and evidence-based practices. Previously offered as NURS 3034.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3083 Nursing Care of Older Adults
Prerequisites: Admission into RN to BSN program
Description: Examines the effects of aging on older adults, including physiological, psychological, social, and end of life aspects. The course focuses on methods of health promotion, improving quality of life, and access to quality care.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3102 Nursing Pharmacology II
Prerequisites: NURS 3018 Foundations of Nursing, NURS 3013 or NURS 3213 Theoretical and Conceptual Foundations of Nursing, NURS 3002 Pharmacology in Nursing I, and Full admission to NURS program
Description: This course presents advanced drug knowledge, pharmacotherapeutics, pharmacodynamics, and pharmacokinetics with special attention to polypharmacy.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3103 Pharmacology in Nursing II
Prerequisites: NURS 3018 and NURS 3003 and NURS 3013
Description: Presents advanced drug knowledge, pharmacotherapeutics, pharmacodynamics, and pharmacokinetics with special attention to polypharmacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3115 Maternal and Pediatric Nursing
Prerequisites: NURS 3013 or NURS 3213, NURS 3003, NURS 3118, and Full admission to NURS Program
Description: Explores concepts of nursing theory for the holistic care of child-bearing women, newborns, and children. This course includes clinical rotations and laboratory/simulation experiences in maternal/child and pediatric settings.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

NURS 3118 Adult Health Nursing I
Prerequisites: NURS 3018 and BIOL 3214 and NSCI 2013.
Description: Provides concept based nursing theory for holistic care of adult clients with health alterations. Includes physical and mental wellness, diagnostic and therapeutic nursing interventions, emphasizing the nursing process and critical thinking to manage acute and chronic health alterations. Provides opportunities to practice nursing skills in simulated and actual medial surgical and mental health clinical settings.
Credit hours: 8
Contact hours: Lecture: 5 Lab: 9 Contact: 14
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3183 Nursing Care of Aging Populations
Prerequisites: Full admission to NURS program.
Description: Explores the physiological, psychological, and social aspects of aging, emphasizing the unique healthcare needs of older adults. The course covers common health related issues in aging adults and discusses strategies for promoting healthy aging, improving quality of life, and providing palliative and end of life care for older adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3213 Theoretical and Conceptual Frameworks of Nursing
Prerequisites: Full Admission to the NURS program
Description: Examines nursing theories and their application to nursing practice, education, and research. Students will examine the evolution of nursing theory, the critical analysis of various theoretical frameworks, and their relevance to contemporary nursing practice. Emphasis will be placed on understanding the relationship between theory, research, and evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3223 Global and Cultural Competency in Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program; and NURS 3018 and NURS 3013 and NURS 3003.
Description: Expands understanding of cultural diversity and global concepts in relation to health care beliefs and practices. Prepares students to improve healthcare delivery in globally diverse settings and population groups. Previously offered as NURS 3224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4013 Healthcare Policy, Finance and Regulatory Environments
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, NURS 3034.
Description: Provides information, perspectives and strategies that nurses need to develop the capacity and skills to influence reform, quality of care and access to health. Active learning strategies include individual and group learning experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4023 Trends and Issues in Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: An overview of the evolution of nursing as a profession while introducing students to their role as scholarly practitioners. Examination of changes in the U.S. healthcare system, the importance of information technology and measures that promote quality, safety and improved outcomes in patient care as well as issues and trends in contemporary practice, the importance of interprofessional collaboration and the influence of socioeconomic, ethical, legal and professional values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4034 Leadership and Management in Nursing
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, NURS 3043, all with a minimum grade of "C".
Description: Examination of selected leadership and management theories and processes critical to a work environment that is efficient, effective, and committed to quality nursing care. Emphasis on the key skills employed by successful nurse leaders/managers. Utilizes a clinical component to prepare graduates for an entry position into the professional nurse manager role. Previously offered as NURS 4033.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4043 Nursing Research and Evidenced-Based Practice
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Basic understanding of the research process and its application to nursing and evidence-based practice. Includes appraisal of literature, research design, and statistical methods and analysis. Qualitative, quantitative, and mixed methodology research, data summarization, and principles of measurement will be reviewed. Particular emphasis on ethics and the rights and responsibilities toward human subjects are examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4050 RN-BSN Capstone
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, and NURS 3043, all with a minimum grade of "C". May take concurrently with NURS 4023, NURS 4034 and NURS 4043..
Description: Implementation of knowledge from the RN-BSN curriculum and application of evidence-based practice while utilizing inter-professional collaboration, leadership, management, ethical decision making, healthcare policy at the local, state and global levels, informatics, health, wellness and research. Engagement in community activities promoting health and wellness and the advancement of the role of the baccalaureate prepared registered nurse. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4054 Nursing Capstone and Transition to Practice
Prerequisites: NURS 4116 and NURS 4043 and HLTH 4783.
Description: As a capstone course, students apply knowledge from the BSN curriculum and engage in activities utilizing evidence-based practice; integrate healthcare policy at the local, state and national levels. Highlights the influence of professional values on the role of the professional nurse. Application of critical thinking, communication, and therapeutic nursing interventions to demonstrate readiness for the NCLEX-RN.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4113 Nursing Care of the Family and Community
Prerequisites: NURS 3118 and Full admission to the NURS program
Description: Explores and applies the role of the nurse in the provision of holistic care of families, communities, and vulnerable populations. Course includes clinical rotations and simulations focusing on disease management and wellness promotion to vulnerable populations in community settings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

NURS 4116 Adult Health Nursing II
Prerequisites: NURS 3118
Description: Provides concept-based nursing theory for holistic care of adult clients with critical health alterations. Clinical focuses on providing high acuity nursing care in critical care clinical settings.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4122 Trends and Topics in Nursing
Prerequisites: NURS 3013 or NURS 3213 Theoretical and Conceptual Foundations of Nursing and full admission to the NURS program
Description: Focuses on current and emerging topics, challenges, and innovations that directly affect the professional nurse and the healthcare environment. Explores ethical considerations, professional development, and the future direction of nursing in a rapidly changing healthcare environment.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4136 Essentials of Nursing Leadership
Prerequisites: NURS 4116 and NURS 4043 and HLTH 4783.
Description: Examines selected theories and processes critical to a work environment that are efficient, effective, and committed to quality nursing care. Utilizes a clinical component to prepare graduates for an entry position into the professional nurse leader/manager role.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4143 Research and Evidence-Based Practice in Nursing
Prerequisites: NURS 3013 or NURS 3213, and full admission to the NURS program
Description: Introduces the principles and methods of research in nursing. Focuses on the development of critical thinking and analytical skills necessary to evaluate and apply research findings to clinical practice. Students will explore various research designs, methodologies, and statistical analyses used in nursing research. The course also covers the ethical considerations in conducting research and the role of evidence-based practice in improving patient outcomes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4216 Family and Community Health Nursing
Prerequisites: NURS 3118 and NURS 4043 and NURS 3223 and NURS 3102
Description: Provides concepts of nursing theory for the holistic care of child-bearing women, newborns, children, older adults, families and the communities in which they live. Clinical focuses on health and wellness promotion, providing nursing care to vulnerable populations in a variety of settings. Previously offered as NURS 3218.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4242 Nursing Informatics
Prerequisites: NURS 4116 and NURS 4216 and NURS 4023
Description: Provides an overview of electronic information related to health sciences. Focuses on the use of technology-based health applications to support clinical, administrative, and educational decision-making.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4243 Nursing Informatics
Prerequisites: NURS 4116 Adult Health Nursing II, NURS 4216 Family and Community Health Nursing, and NURS 4023 Trends and Issues in Nursing
Description: Provides an overview of nursing informatics, focusing on the integration of nursing science, information science, and computer science to manage and communicate data, information, and knowledge in nursing practice. Students will learn about the role of informatics in improving patient care outcomes, enhancing clinical decision-making, and promoting efficient healthcare delivery.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4333 Mental Health Nursing
Prerequisites: NURS 3018, NURS 3002, and Full admission to the NURS program
Description: Mental Health Nursing examines and applies concepts of nursing theory for holistic care of clients with mental health alterations. This course includes opportunities to provide nursing care in simulated experiences and clinical settings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

Nutritional Sciences (NSCI)

NSCI 2011 Applied Principles of Human Nutrition
Prerequisites: Past completion of or concurrent enrollment in NSCI 2013 and must be majoring or minoring in NSCI.
Description: Application of human nutrition concepts in the form of diet, metabolism, and behavioral measurement.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Nutritional Sciences

NSCI 2013 Principles of Human Nutrition (N)
Description: Functions of the nutrients in human life processes. Nutrient relationship to health as a basis for food choices. Open to all University students. Previously offered as NSCI 2123, NSCI 2114 and FNIA 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
General Education and other Course Attributes: Natural Science Reasoning

NSCI 2111 Professional Careers in Nutritional Sciences
Prerequisites: For students interested in Allied Health, Community Nutrition or Nutrition and Exercise or consent of instructor.
Description: Career opportunities in health professions. Roles and responsibilities of health care professionals. Routes to professional memberships and current issues in professionalism. Previously offered as FNIA 2111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2112 Foods of the African Diaspora: Chronology, Evolution and Impact
Description: An exploration of the evolution of African American foodways and their physical health impacts within the historical contexts of slavery, emancipation, cultural development, religion, and traditional health beliefs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2211 Professional Careers in Dietetics
Description: Career opportunities in food, nutrition and dietetics. Roles and responsibilities of nutrition and dietetics professionals. Routes to professional memberships and current issues in professionalism.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2311 Introduction to Public Health Nutrition
Description: Overview of Public Health Nutrition with an emphasis on how biological, social, economic, and political factors affect nutrition and health status of populations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2412 Introduction to Nutrition & Food Literacy
Prerequisites: NSCI 2013 or consent of instructor.
Description: Application of nutrition education principles and public health approaches for planning, purchasing, preparing and preserving healthy affordable foods to improve health outcomes.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 3 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 2850 Special Topics in Nutritional Sciences
Description: Study of specific consumer education issues or topics in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 3011 Nutrition and Evidence-based Practice I
Prerequisites: NSCI 2013 and STAT 2013 or STAT 2023.
Description: Understanding basic research designs and methodologies, ethics in research, and the use of research in the development of evidence-based recommendations for healthy individuals, applying statistics, and interpreting data in nutrition research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3021 Nutrition and Evidence-based Practice II
Prerequisites: NSCI 3011 and BIOL 3204. "C" or better in NSCI 3011
Description: Understanding research focused on pathophysiology of chronic disease and the role of nutrition in the prevention and treatment of these diseases. Course builds on an understanding of physiology and of nutrition research from BIOL 3204 and NSCI 3011. Ethics in research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3133 Science of Food Preparation
Prerequisites: HTM 1113 or NSCI 3993 and NSCI 2013, and CHEM 3013. "C" or better in NSCI 3993.
Description: Scientific principles underlying functions of food ingredients, recipe/menu modification, diet management for disease states and food safety.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 3223 Nutrition Across the Life Span
Prerequisites: NSCI 2013 or equivalent.
Description: Nutritional needs and dietary concerns of individuals from conception through old age. Previously offered as NSCI 4223 and FNIA 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3312 Nutrition Care Process and Assessment
Prerequisites: NSCI 3223 with minimum grade of "C", BIOL 3204 or concurrent, and Option in DIET or consent of instructor.
Description: Familiarity and application of the Nutrition Care Process - a systematic approach to providing quality nutrition care. The student will also be introduced to and be able to apply medical terminology and nutrition assessment practices in the Nutrition Care process.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3440 Nutritional Sciences Pre-Professional Experience
Prerequisites: Major in Nutritional Sciences.
Description: Student-arranged, instructor-approved, job shadowing, work or volunteer experience in professional settings related to the Nutritional Sciences option. Forty hours of experience required per credit hour. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 3543 Food and the Human Environment (GS)
Description: Impact of the various factors that affect food availability, production, processing, distribution and consumption of food in the world. International cultures and foods. Challenges of and solutions to the world food crisis. Previously offered as FNIA 3543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
General Education and other Course Attributes: International Dimension, Society & Human Behavior

NSCI 3733 Environmental Nutrition
Prerequisites: NSCI 2013.
Description: Evidence-based examination of agricultural production, food systems, and sustainability on food, nutritional quality, and societal health, from harvest to health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3813 Nutrition Counseling
Prerequisites: NSCI 2114 and NSCI 3223 and NSCI 3312 and HDFS 2113 and PSYC 1113 or consent of instructor. "C" or better in NSCI 2114, NSCI 3223 and NSCI 3312.
Description: Theory and practice of counseling and interviewing skills as applied to nutrition counseling. Previously offered as NSCI 3812.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 3993 Culinary Principles in Nutrition
Prerequisites: Limit to all options in Nutritional Sciences.
Description: Familiarity and application of techniques and theories of food preparation including use and selection of equipment, sanitation and quality controls.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 4021 Nutrition and Evidence-based Practice III
Prerequisites: NSCI 3021. "C" or better in NSCI 3021
Description: In-depth study of major controversial issues in the field of nutrition. Course builds on understanding of nutrition research from NSCI 3011 and 3021. Review and analysis of current research. Ethics in research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4023 Nutrition in the Pathophysiology of Chronic Disease
Prerequisites: NSCI 2013, NSCI 3011, NSCI 3223 and BIOL 3204. "C" or better in NSCI 3011 and NSCI 3223.
Description: Analysis of the role of dietary bioactive components in health maintenance and chronic disease prevention. Communication of evidence-based nutrition information to the public.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4040 International Studies in Food and Culture
Description: Development of analytical and interpersonal skills for understanding food systems, dietary patterns, and nutritional practices across global communities. Students examine how historical influences and contemporary dynamics shape food cultures, nutritional beliefs, and eating practices internationally. Course explores regional food traditions, and nutrition-related challenges and innovations worldwide. Students will identify opportunities for collaboration in addressing global food security, nutrition education, and sustainable food nutrition practices. LEC 1-6, Max 6
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4111 Professional Preparation for Careers in Dietetics
Prerequisites: NSCI 4854 or concurrent, or consent of instructor. "C" or better in NSCI 2211, NSCI 3011, NSCI 3543, NSCI 3813 and NSCI 3993.
Description: Preparation of supervised practice applications and supporting documents. Options for professional credentials, graduate school, and careers. Professional issues in dietetics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4123 Human Nutrition and Metabolism I
Prerequisites: NSCI 2013 and CHEM 3013 or CHEM 3053; BIOL 3204 or consent of instructor.
Description: Examine the chemical characteristics and functions of macronutrients; digestion, absorption, transport and metabolism of macronutrients; control of intermediary metabolism and metabolic pathways. No credit for students with degree credit in NSCI 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4133 Nutrition for Exercise and Sport
Prerequisites: NSCI 2013.
Description: Application of principles of nutrient metabolism as they relate to physical activity, sport and health. Strongly recommend a background including NSCI 4123 and BIOC 3653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4143 Human Nutrition and Metabolism II
Prerequisites: NSCI 4123, minimum grade of “C” or consent of instructor.
Description: Chemical characteristics, absorption, transport, functions, requirements and health implications of vitamins and minerals. Discussion of phytochemicals and supplements in relation to health maintenance and disease prevention. No credit for students with degree credit in NSCI 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4313 Dietary and Herbal Supplements
Prerequisites: NSCI 2114 and NSCI 3021 and BIOL 3204 or instructor approval.
Description: Explore the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4331 Quantity Food Production Practicum
Prerequisites: NSCI 2013, NSCI 3993 and NSCI 4573 with a grade of "C" or better. Restricted to DIET option.
Description: Observation and practice in real-life-quantity food production settings. Students will need immunizations, TB tests, and background checks completed before the semester of enrollment in the course.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Nutritional Sciences

NSCI 4373 Principles of Nutrition Education and Behavior Change
Prerequisites: NSCI 2114 and NSCI 3021 and NSCI 3223 or consent of instructor. "C" or better in NSCI 3021 and NSCI 3223.
Description: Analysis of various methods, strategies, theories, resources and evaluation methods for nutrition education. Principles of behavior change and effective nutrition counseling. Overview of public health nutrition programs. Previously offered as FNIA 4373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4573 Management in Dietetics
Prerequisites: ACCT 2103 or ACCT 2003; and NSCI 3993 or HTM 1113 or HTM 1114.
Description: Management practices in the field of dietetics including program, clinical and food systems management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
Additional Fees: Nutritional Sci Consummable fee of $20 applies.

NSCI 4632 Community Nutrition I
Prerequisites: NSCI 3223 or consent of instructor. "C" or better in NSCI 2211, NSCI 3011, NSCI 3543, NSCI 3813.
Description: Application of nutrition epidemiological, environmental and program assessment practices in community nutrition settings. Field work required.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4633 Community Nutrition II
Prerequisites: NSCI 2114 and NSCI 3223 and NSCI 4632 or consent of instructor. "C" or better in NSCI 4632
Description: Application of nutrition, education, communication and evaluation principles to planning and implementing community nutrition programs and services. Field work required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4643 Capstone for Nutritional Sciences
Prerequisites: Senior standing in NSCI or consent of instructor.
Description: Integration of the body of knowledge in nutritional sciences. Examination of the research basis for defining and solving critical issues. Oral and written reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4850 Special Unit Studies in Nutritional Sciences
Description: Special units of study in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 4854 Medical Nutrition Therapy I
Prerequisites: NSCI 3223 and NSCI 3813 and NSCI 4123 or concurrent enrollment. "C" or better in NSCI 3813 and NSCI 4123
Description: Physiological and metabolic bases for dietary modifications in disease states. Previously offered as NSCI 4853.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4864 Medical Nutrition Therapy II
Prerequisites: NSCI 4854. "C" or better in NSCI 4854.
Description: A continuation of NSCI 4854, Medical Nutrition Therapy I. Previously offered as NSCI 4863 and NSCI 4852.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4900 Honors Creative Component
Prerequisites: College of Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in College of Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral exam. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences
General Education and other Course Attributes: Honors Credit

NSCI 4913 Nutritional Epidemiology
Prerequisites: Junior standing, STAT 2013 and HLTH 3723 and NSCI 2013 with a minimum grade of "C", or consent of instructor.
Description: Assessing the impact of nutrition and physical activity on health outcomes from an epidemiological perspective. Attention will be given to understanding the spectrum of study designs, including their benefits and drawbacks, used to examine this relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5000 Master's Thesis
Prerequisites: Consent of adviser.
Description: Individual research and thesis that will fulfill the requirements for the master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5003 Diabetes Medical Nutrition Therapy
Prerequisites: Admission to MS in Dietetics.
Description: An in-depth study of diabetes management with emphasis in nutrition care. Topics will include diabetes pathophysiology, clinical care guidelines, basic pharmacology, clinical nutrition education and counseling strategies, and nutrition care planning. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5011 Special Topics in Nutritional Sciences
Prerequisites: NSCI graduate standing.
Description: Orientation to graduate study and research in nutritional sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5012 Public Policy Development in Food, Nutrition and Related Programs
Description: Rationale underlying governmental programs in food and nutrition and human sciences and assessment of the effectiveness of the programs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5013 Financial Management and Cost Controls in Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: An overview of accounting, cost controls, and financial management in food service. Special emphasis placed on understanding the topics and applying them to the theoretical and/or practical research for food service systems. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease
Prerequisites: NSCI 2114, NSCI 3011, NSCI 3223 and BIOL 3204.
Description: In-depth study of the pathophysiology of chronic diseases and the role of dietary bioactive components in health maintenance and disease prevention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5033 Macronutrients in Human Nutrition
Prerequisites: Biochemistry and advanced human nutrition/metabolism, or consent of instructor.
Description: Characteristics, biological roles, digestion, absorption, transport and metabolism of the macronutrients. Previously offered as NSCI 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5043 Micronutrients in Human Nutrition
Prerequisites: NSCI 5033 or consent of instructor.
Description: In-depth study of vitamins and minerals and their interrelationships in metabolism. Previously offered as NSCI 6123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5053 Functional Foods for Chronic Disease Prevention
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of instructor.
Description: Integrate and evaluate the regulatory principles, food science, nutrient science and nutritional metabolism for the development of functional foods, nutraceuticals, and dietary supplements for chronic disease prevention. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5063 Food Culture
Prerequisites: Admission to MS in Dietetics.
Description: Survey of topics that affect how we perceive food in the modern world. Students examine food as a badge of cultural identity, a focus of media scrutiny and promotion, a symbol of religion, and a driver of technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5073 Nutrition Therapy for Eating Disorders
Prerequisites: Admission to Great Plans IDEA MS in Dietetics. Medical Nutrition Therapy or consent of instructor.
Description: Study of eating disorders management and nutrition care. Topics will include eating disorders medical complications, clinical care guidelines, basic pharmacology, clinical nutrition education, nutrition care planning, psychology of eating disorders, team collaboration, and therapeutic modalities for nutrition counseling. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5103 Grant Writing for the Professional
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Grant proposal preparation experience including written critique of proposals and budget planning. Designed for the working professional. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5123 Research Approaches and Translation in Nutritional Sciences
Description: Basic components of the research process in nutritional sciences, critical interpretation, and translation to practice applications for nutrition professionals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5133 Advanced Nutrition for Exercise and Sport
Prerequisites: Intro nutrition and biochemistry or consent of instructor.
Description: Advanced study of nutrition and metabolism relating to physical activity, sports and health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5203 Nutrition in Wellness
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Wellness promotion through nutrition. Nutritional risk and protective factors will be examined as they relate to public health and individual nutrition. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5210 Contemporary Issues in Food Service
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics program or consent of instructor.
Description: Contemporary issues in food service in dietetics; formulation of innovative solutions and processes to enhance effectiveness in the work place. Previously offered as NSCI 5211. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5213 Entrepreneurship in Food Service and Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics.
Description: An overview of entrepreneurship, characteristics of entrepreneurs and small business development within the context of food service and dietetics. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5223 Advanced Nutrition Across the Life Span
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics.
Description: Examination of the influence of normal physiological stresses on nutritional needs throughout the life span. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5240 Contemporary Issues in Nutrition
Prerequisites: Enrolled in Great Plains IDEA online MS in Dietetics.
Description: Contemporary issues in nutrition. Web-based instruction. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5303 Human Nutrition and Metabolism I
Prerequisites: Introductory nutrition, organic chemistry, physiology or consent of instructor.
Description: Examine the chemical characteristics and functions of macronutrients; digestion, absorption, transport and metabolism of macronutrients; control of intermediary metabolism and metabolic pathways. No credit for students with degree credit in NSCI 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5313 Dietary and Herbal Supplements
Prerequisites: Introductory nutrition and human physiology; or consent of instructor.
Description: Explore the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5323 Physical Health, Nutrition, Wellness and Active Aging
Description: Normative biological and physiological changes due to aging are identified with a focus on how environmental factors such as physical activity and nutrition can support health aging and prevention of frailty and age-related diseases. Multiple facets of active aging that can augment quality of life will be examined. Resources for implementation of inclusive programs for diverse groups of aging adults will be explored. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5353 Human Nutrition and Metabolism II
Prerequisites: Introductory nutrition, organic chemistry, biochemistry and physiology.
Description: Chemical characteristics, absorption, transport, functions, requirements and health implications of vitamins and minerals. Discussion of phytochemicals and supplements in relation to health maintenance and disease prevention. No credit for students with degree credit in NSCI 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5363 Maternal and Child Nutrition
Prerequisites: NSCI 2114 or equivalent.
Description: Nutritional needs and dietary concerns during pregnancy, lactation, infancy and childhood through puberty. Discussion of implications for nutrition intervention, family education and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5373 Childhood Nutrition
Prerequisites: Admission to MS in Dietetics.
Description: The physiological, biochemical, and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Discussion of medical nutrition therapy for a variety of medical conditions found in this population including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5393 Nutrition and Aging
Prerequisites: NSCI 2114 or equivalent.
Description: Nutritional needs, and dietary concerns of the elderly. Implications for food and nutrition programs, policies, research and education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5403 Contemporary Issues in Dietetics Practice
Description: Contemporary management practices in the field of dietetics including innovative solutions and processes in program, clinical and food systems management. Online, asynchronous format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5412 Dietetic Internship Management Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved food service management for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis. Previously offered as NSCI 5440.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5422 Dietetic Internship Clinical Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved clinical for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5432 Dietetic Internship Community Nutrition Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved community nutrition settings for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5443 Precision Nutrition
Prerequisites: For graduate students in NSCI or by permission of the instructor.
Description: Fundamental concepts for understanding, interpreting, and evaluating studies related to precision nutrition. The goal of this course is to help students understand, in depth, the influence of genetics and epigenetics on nutrient metabolism, and the implications for human metabolic diseases such as cardiovascular disease and cancer. We will also review the current evidence, uncertainties and controversies, and future directions in precision nutrition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5453 Nutrition and Health Disparities
Prerequisites: Lifespan nutrition; or Consent of Instructor.
Description: Examination of nutrition and health disparities in the U.S. Identification of sociocultural determinants of health and their influence on nutrition and health outcomes. Exploration of interdisciplinary strategies to reduce nutrition and health disparities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5473 Pediatric Clinical Nutrition
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of instructor.
Description: Examination of the physiological, biochemical and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Medical nutrition therapy for a variety of medical conditions found in this population including inborn errors of metabolism, food hypersensitivity, obesity and diseases of the major organ systems. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5513 Public Health Nutrition
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of Instructor.
Description: Information and activities related to public health nutrition with focus on how nutrition research, policies and programs impact populations. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5543 Obesity Prevention Across the Lifespan
Prerequisites: Introductory and lifespan nutrition; or consent of instructor.
Description: Obesity in the population from childhood to the adult age groups. Examination of the impact of obese conditions on disease development throughout the life span. Critical analysis of prevention efforts and interventions used in the behavioral and clinical management of overweight and obese individuals in community and clinical settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5553 Global Nutrition and Food Security
Description: Advanced study of the magnitude, causes, and nature of hunger and under-nutrition in low income countries; emphasis on programs, policies and planning directed toward alleviating hunger and malnutrition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5563 Nutritional Assessment
Prerequisites: Lifespan nutrition, human nutrition & metabolism, or equivalent.
Description: Dietary, physical, and biochemical assessment techniques and their application to patient or client nutritional status assessment in health care systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5603 Statistical Methods in Dietetics
Prerequisites: Admission to MS in Dietetics.
Description: The elementary tools that are commonly used in making statistical decisions in the field of dietetics. Understanding of data and the methods used to analyze such data particularly as it pertains to the dietetics profession. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5613 Nutrition Education and Behavior Change
Prerequisites: Consent of instructor.
Description: Analysis and practice of various learning and behavior change theories and application for understanding and/or modifying eating behavior, diet, and related health indices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5643 Advanced Medical Nutrition Therapy
Prerequisites: Admission to dietetic internship or consent of instructor.
Description: Physiological and metabolic bases for nutritional support in disease.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 5673 Human Resources
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Future role, focus, practices and governance of human resources in health care.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5683 Fundamentals of Leadership in Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Study of the key issues in the theory, research, and application of leadership within the context of dietetics practice. Includes defining leadership, understanding situational characteristics that facilitate/hinder effective leadership, understanding effective/dysfunctional leadership, and gaining greater insight into one's own leadership style and functioning. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5713 Public Health Nutrition and Food Policy
Prerequisites: Consent of instructor
Description: Current issues in the public health and community nutrition with emphasis on the impact of legislative, political, economic, environmental and cultural diversity factors on food systems and nutritional well-being of populations. Application to grant writing, program planning and evaluation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences
Prerequisites: A course in biochemistry and a course in statistics.
Description: An integrated lecture and laboratory course examining the basic theories and techniques used in experimental nutritional sciences. Application of a range of biochemical and molecular biological techniques as they are currently applied to modern biomedical research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 5753 Health Care Administration
Prerequisites: Admission to MS in Dietetics.
Description: Overview of U.S. and international health care systems. Administrative roles of health care professionals and how they affect patient health and health care delivery in various settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5843 Non-thesis Graduate Capstone
Prerequisites: Final semester and consent of instructor.
Description: A guided course with a research paper and presentation that is the final requirement for graduate students in NSCI's Master of Science degree, non-thesis plan. Not recommended for students interested in pursuing a PhD. Graded on a pass-fail basis. Previously offered as NSCI 5840.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5870 Problems in Nutritional Science
Description: Analysis of emerging problems and trends in nutritional sciences. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5913 Nutritional Epidemiology
Prerequisites: HLTH 5323 or MPH 5323 or admission to NSCI graduate program, and Introductory Nutrition and Statistics, or consent of instructor.
Description: Assessing the impact of nutrition and physical activity on health outcomes from an epidemiological perspective. Attention will be given to understanding the spectrum of study designs, including their benefits and drawbacks, used to examine this relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5960 Master's Seminar in Nutritional Sciences
Prerequisites: NSCI graduate students.
Description: Individual and group seminars on current issues and research in nutritional sciences. Previously offered as NSCI 5961. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Nutritional Sciences

NSCI 5962 Environmental Scanning and Analysis
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Review of current issues in the economic, social, ethical, political, legal, technological, and ecological environments and the effect of these changes on dietetics practice. Previously offered as NSCI 5963.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6000 Doctoral Dissertation
Prerequisites: Consent of major professor.
Description: Offered for variable credit, 1-12 credit hours, maximum of 45 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 6022 Advanced Energy Metabolism
Prerequisites: NSCI 5033 and NSCI 5043
Description: Critical discussion and directed study of current literature and concepts in the nutritional control of gene expression and regulation of energy homeostasis from the cellular to organismal level.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6033 Functional Foods and Phytochemicals
Prerequisites: Advanced human nutrition/metabolism or consent of instructor.
Description: Identification of basic structural, functional and metabolic properties of phytochemicals (substances in plants that have been linked to reducing chronic disease) and their respective food sources. Special attention placed on health benefits and chronic disease risk reduction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6223 Nutrition in Immunology
Prerequisites: NSCI 5043 or consent of instructor.
Description: Principles and issues related to nutrition and immunology. Impact of nutrients and nutritional status on integrity of the immune system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6243 Nutrition and Cancer
Description: Examination of basic cancer biology and methodology used to study nutrition and cancer relationships. The role of nutrition in specific cancers, cancer prevention and cancer treatment will be explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6451 Advanced Grant Writing in Nutritional Sciences
Prerequisites: Admission to the PhD in NSCI and NSCI 5123 or equivalent, or consent of instructor.
Description: Grant writing, identifying external funding and managing grants for nutritional sciences research projects.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6643 Clinical Aspects of Nutrition Support
Prerequisites: Medical nutrition therapy; or consent of instructor.
Description: Specialized nutrition assessment and support. Review of energy expenditure and substrate utilization in specific disease states. Current methods for the initiation and management of enteral and parenteral nutrition therapy including access, metabolic and mechanical complications. Evaluation of nutrition support methodology in selected disease states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6870 Independent Study in Nutritional Sciences
Description: In-depth analysis of research issues in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 6960 Seminar: Emerging Topics in Nutrition
Description: Critical evaluation of research in nutritional sciences. Individual and group seminars on selected topics. Previously offered as NSCI 6961. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Nutritional Sciences

Opportunity Orange Scholars (OOS)

OOS 1000 Scholars Independent Study
Prerequisites: Admission to Opportunity Orange Scholars
Description: Independent study for students within Opportunity Orange Scholars. Independent study will differ depending on the professional and/or personal goals for each student. Not required for all students in Opportunity Orange Scholars. The course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and interdependent living for students who need additional instruction.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Non Credit, Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

OOS 1101 Elective I: Relationships 101
Prerequisites: Admission to Opportunity Orange Scholars.
Description: An applied course designed to actively involve students within the Opportunity Orange Scholars program in the exploration of topics which influence the development of positive relationships. Topics include gender differences, relationship principles, family of origin and personal needs. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and independent living. Meets with HDFS 1101.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1111 First-Year Seminar
Prerequisites: Admission to Opportunity Orange Scholars.
Description: Experiences that effectively facilitate transition into student-life at OSU. Career development through connections among the OOS curriculum, electives, career goals, and eventual careers. Analysis of case scenarios. Required of all first semester students of Opportunity Orange Scholars. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and independent living. Meets with EDHS 1111 or UNIV 1111. Previously offered as OOS 1112.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1113 Scholars Seminar I: Introduction to Belonging & Wellbeing
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This course is designed for incoming students in their first semester of the Opportunity Orange Scholars program, and will introduce students to a holistic perspective of health and wellbeing. Coursework will include an introduction to the biopsychosocial-spiritual framework, the concepts of belonging and self-determination, and an introduction to the skills related to developing and maintaining a Circle of Support.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1121 Navigating Community Supports and Services
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This course is designed for students in the Opportunity Orange Scholars program, enrolled in their first semester. Course content will include navigating the local and state-wide resources available to adults with disabilities such as Developmental Disabilities Services, Department of Rehabilitation Services, Supplemental Security Insurance, along with personal finances, and Medicaid or health insurance. This course will include learning both within and outside of a classroom setting, to ensure students have the opportunity to develop and practice skills in a real-life environment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1123 Interdependent Living I: Foundational Concepts
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This course is designed for incoming students in their first semester of the Opportunity Orange Scholars program, and will introduce students to skills vital for living an interdependent life. Course content will include an introduction to navigating public transportation, personal finance, and personal care/self-management. This course will include both lecture and lab sessions, providing students the opportunity for real life application (e.g., utilizing public transportation, cooking).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Non Credit, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Human Dev & Family Sci

OOS 1133 Foundations of Career Exploration and Preparation
Prerequisites: Admission to Opportunity Orange Scholars.
Description: Preparatory course for Opportunity Orange Scholars as an introduction to employment/internship. Introduces students to the concept of employment, careers, and professional goal setting. Lays the groundwork for students to make decisions about career interests, employment supports, and personal employment goals. Required of all first semester OOS students. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and interdependent living.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1200 Elective II
Prerequisites: Admission to Opportunity Orange Scholars.
Description: Individualized elective study for students within Opportunity Orange Scholars. Electives will differ depending on the professional and/or personal goals for each student. Required of all second semester OOS students. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for a competitive employment and independent living. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1213 Scholars Seminar II: Advanced Applications of Belonging & Wellbeing
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This course is designed for students in their second semester of the Opportunity Orange Scholars program, and builds on the content provided in OOS 1113 Scholars Seminar I: Introduction to Belonging & Wellbeing. Coursework will include a more in-depth review of biopsychosocial-spiritual health and wellbeing, with an emphasis on application strategies for promoting overall health and wellbeing (e.g., self-determination, Circle of Support).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1223 Interdependent Living II: Application of Foundational Concepts
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This course is designed for students in their second semester of the Opportunity Orange Scholars program, and builds on the content provided in OOS 1123 Interdependent Living I: Foundational Concepts. Course content will provide a continued application of navigating public transportation, personal finance, and personal care/self-management. This course will include both lecture and lab sessions, providing students the opportunity for real life application (e.g., utilizing public transportation, cooking).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Non Credit, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Human Dev & Family Sci

OOS 1233 Pre-Internship II
Prerequisites: Admission to Opportunity Orange Scholars.
Description: This developmental course focuses on searching, preparing for, and obtaining an internship to be completed during OOS 1333: Internship I and OOS 1433 Internship II. Internship site placements are chosen based on student's individual preferences and long term career goals. This course is a pre-requisite for OOS 1333: Internship I.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1300 Elective III
Prerequisites: Admission to Opportunity Orange Scholars
Description: Individualized elective study for students within Opportunity Orange Scholars. Electives will differ depending on the professional and/or personal goals for each student. Required of all second year OOS students. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and independent living.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1313 Scholars Seminar III: Introduction to Self-Advocacy
Prerequisites: Admission to Opportunity Orange Scholars
Description: This course is designed for students in their third semester of the Opportunity Orange Scholars program, and builds on the content provided in OOS 1213 Scholars Seminar II: Advanced Application of Belonging and Wellbeing. Course work will include a foundational understanding of self-advocacy and the skills needed to effectively advocate for one's personal support needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1323 Interdependent Living III: Advanced Concepts
Prerequisites: Admission to Opportunity Orange Scholars
Description: This course is designed for students in their third semester of the Opportunity Orange Scholars program, and builds on the content provided in OOS 1223 Interdependent Living II: Application of Foundational Concepts. Coursework will include a comprehensive review of skills vital for living an interdependent life (i.e., successfully utilizing various forms of public transportation, advance personal finance concepts, weekly meal preparation). This course will include both lecture and lab sessions, providing students the opportunity for real life application (e.g., public transportation, cooking).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Non Credit, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Human Dev & Family Sci

OOS 1333 Internship I
Prerequisites: Admission to Opportunity Orange Scholars.
Description: Opportunity Orange Scholars students will gain on the job training and professional skills through internship experiences. This course is a pre-requisite for OOS 1433: Internship 2.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1400 Elective IV
Prerequisites: Admission to Opportunity Orange Scholars
Description: Individualized elective study for students within Opportunity Orange Scholars. Electives will differ depending on the professional and/or personal goals for each student. Required of all second year OOS students. The developmental course is designed to work in conjunction with other Opportunity Orange Scholars courses to promote lifelong learning and advance the knowledge and skills necessary for competitive employment and independent living.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1413 Scholars Seminar IV: Advanced Application of Self-Advocacy
Prerequisites: Admission to Opportunity Orange Scholars
Description: This course is designed for students in their final semester of the Opportunity Orange Scholars program and builds on the content provided in OOS 1313 Scholars Seminar III: Introduction to Self-Advocacy. Course work will walk students through the application of self-advocacy skills, as they develop their capstone project. Capstone projects will represent the culmination of skills gains cross all OOS Seminar courses, and will focus on individual students' plan for where to live, work, and play after earning a certificate in Career and Community Studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

OOS 1423 Interdependent Living IV: Application of Advanced Concepts
Prerequisites: Admission to Opportunity Orange Scholars
Description: This course is designed for students in their final semester of the Opportunity Orange Scholars program pursuing an academic certificate in Career and Community Studies, and builds on content provided in all other OOS Interdependent Living courses. Coursework will include an advanced review of topics vital to living an interdependent life. This course will include both lecture and lab sessions, providing students the opportunity for real life application (e.g., utilizing public transportation, cooking).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Non Credit, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Human Dev & Family Sci

OOS 1433 Internship II
Prerequisites: Admission to Opportunity Orange Scholars
Description: Opportunity Orange Scholars students will gain on the job training and professional skills through internship experiences. Students will develop a plan for post internship employment based on skills and experiences gained at their internship sites.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Non Credit, Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

Organizational Leadership (ORGL)

ORGL 3113 Effective Leadership Communication Skills
Description: This course prepares current and future leaders to be effective communicators in the workplace, emphasizing message clarity, impactful communication, and interpersonal skills development. Students will learn to influence leadership outcomes, build effective teams, and enhance their impact on colleagues through strategic communication strategies and practices. May not be used for degree credit with BCOM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ORGL 3613 Developing Early-Career Leadership Skills
Description: This course equips students with foundational leadership skills crucial for early career success. It covers theoretical frameworks, practical exercises, and discussions on effective leadership, learn collaboration, coaching, communication, and fostering successful company cultures. May not be used for degree credit with BADM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ORGL 4010 Special Topics In Organizational Leadership
Description: This course introduces students to advanced current issues and topics related to organizational leadership and provides an analysis of a contemporary trending topics dealing with leadership skills. Course content will vary to reflect changing trends and current topics related to the industry.
Credit hours: 1-15
Contact hours: Lecture: 1-15 Contact: 1-15
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

ORGL 4513 Leadership & Organizational Change
Description: This course directs attention to pivotal transformation within organizations, unraveling their structures, and clarifying how leaders can effectively drive these changes. May not be used for degree credit with MGMT 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

Petroleum Engineering (PETE)

PETE 4303 Petroleum Rocks and Fluids
Prerequisites: CHEM 1314 or CHEM 1414; MATH 2144 or MATH 2123; PHYS 2014 or PHYS 1114; Co-requisite(s): GEOL 3413 or GEOL 4023.
Description: Topics include rock properties, flow through porous media, principles of organic chemistry; properties of hydrocarbon liquids and gases; multicomponent mixtures; phase behavior; and gas-liquid equilibrium concepts. Previously offered as ENGR 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 4313 Drilling and Well Completions
Prerequisites: GEOL 3413; ENSC 3233 or MET 3313.
Description: Topics include drilling systems; drilling fluids, drilling hydraulics, cuttings transport, drill bits, oilfield pipe, cements and cementing operations, perforating, acidizing, hydraulic fracturing, and oilfield tools. Previously offered as ENGR 4313. May not be used for degree credit with PETE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 4333 Production Engineering
Prerequisites: PETE 4303; ENSC 3233 or MET 3313.
Description: Topics include a review of artificial lift technologies, multi-phase flow, well stimulation, facilities engineering, gas treating, troubleshooting well production, advanced production strategies, industrial special topics and production equipment selection. Previously offered as ENGR 4333. May not be used for degree credit with PETE 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 4343 Reservoir Engineering and Well Testing
Prerequisites: PETE 4303.
Description: Topics include reservoir fluid flow, well performance, gas and water coning, water influx, oil recovery mechanisms, oil and gas reservoirs, water flooding, type curve matching, well testing, and buildup and drawdown tests. Previously offered as ENGR 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 4990 Special Problems in Petroleum Engineering
Prerequisites: Consent of instructor.
Description: Independent study on specific topics in drilling, production and reservoir engineering. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Lecture: 1-5 Contact: 1-5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5000 Master's Thesis
Prerequisites: Consent of major professor.
Description: Research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5013 Drilling and Well Completions
Description: Topics include drilling systems; drilling fluids, drilling hydraulics, cutting transport, drill bits, oilfield pipe, cements and cementing operations, perforating, acidizing, hydraulic fracturing, and oilfield tools. Previously offered as ENGR 4313. May not be used for degree credit with PETE 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5023 Production Engineering
Description: Topics include a review of artificial lift technologies, multi-phase flow, well stimulation, facilities engineering, gas treating, troubleshooting well production, advanced production strategies, industrial special topics and production equipment selection. Previously offered as ENGR 4333. May not be used for degree credit with PETE 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5110 Special Topics in Petroleum Engineering
Prerequisites: Graduate standing and consent of instructor.
Description: Specialized course addressing specific topics in drilling, production, or reservoir engineering. May be repeated for credit if subject matter varies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5210 Special Topics in Petroleum Engineering
Prerequisites: Graduate standing and consent of instructor.
Description: Specialized course addressing specific topics in drilling, production, or reservoir engineering. May be repeated for credit if subject matter varies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5243 Enhanced Hydrocarbon Recovery
Prerequisites: PETE 4343 or instructor permission.
Description: This course focuses on the background and necessity for enhanced hydrocarbon recovery, and the working principles (physicochemial aspects) of various conventional and state-of-the-art enhanced hydrocarbon recovery technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5303 Petroleum Geomechanics
Prerequisites: PETE 4303 or consent of instructor.
Description: Fundamentals of deformation and failure of sedimentary rocks; application of geomechanics in wellbore stability, solids productions, hydraulic fracturing and reservoir geomechanics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5313 Advanced Drilling Modeling and Simulation
Prerequisites: PETE 4313 or consent of instructor.
Description: Advanced coverage of petroleum drilling operations with an emphasis on real-time drilling optimization; rate of penetration (ROP) modeling and simulation; drilling hydraulics with fluid design optimization; use of a simulator to predict ROP for different drills bits through different formations. Previously offered as ENGR 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5333 Advanced Production and Flow Assurance
Prerequisites: PETE 4333 or consent of instructor.
Description: This course covers petroleum production systems and methods used to assure flow through the system. Topics include downhole and surface equipment, transport through pipelines, inflow performance, phase behavior in oilfield equipment, downhole and surface separation, field treating of natural gas, and production enhancement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5343 Advanced Reservoir Engineering
Prerequisites: PETE 4343 or consent of instructor.
Description: Topics include reservoir drive mechanisms, material balance approach to predict oil and gas reservoir properties, fluid flow in porous media, principles of secondary and tertiary recovery methods, analytical and numerical solutions for fluid flow in reservoirs, and well test analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5363 Petroleum Economics and Investments
Prerequisites: (PETE 5333 and PETE 5343) or consent of instructor.
Description: Evaluation techniques for oil and gas properties focusing on economic analyses, reserves estimations and decision making. Evaluate three independent investment opportunities as class projects. Previously offered as ENGR 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5373 Advanced Well Stimulation
Prerequisites: Permission of instructor.
Description: Hydraulic fracturing simulation and design. Unconventional resource rock mechanics and hydraulic fracturing concepts. Multistage hydraulic fracturing and fracture treatment analysis. Matrix acidizing and evaluation of treatments through methods of pumping pressure analysis. Previously offered as ENGR 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5413 Advanced Well Design and Operational Analysis
Prerequisites: PETE 4313 or consent of instructor.
Description: Topics include information needed to plan oil or gas wells; planning the authorization for expenditures (AFE) budget; use of offset data analysis from logging and drilling for planning; pore and fracture pressure prediction; casing design; wellbore stability, drilling hydraulics, wellbore strengthening considerations in designing the mud weight window; drilling fluids and cements laboratory exercises using latest technologies/materials; completion/stimulation and real time drilling analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5513 Directional Drilling
Prerequisites: PETE 4313 or PETE 5313 or consent of instructor.
Description: Study of directional well planning and drilling; tools and operational techniques used in directional drilling; limiting factors of reaching a predetermined subsurface target.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5613 Advanced Well Completions
Prerequisites: Consent of instructor.
Description: Topics include selection of well completion type, pipe design, well cementing, perforating, selection of surface and downhole equipment, corrosion mitigation, and well stimulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5713 Wellbore Cement Chemistry and Microstructure
Prerequisites: Consent of instructor.
Description: This course will focus on application of Portland cement-based cement systems in construction of wellbores for the following: conventional & unconventional oil & gas reservoirs; conventional and engineered geothermal systems; injection of brine and/or CO#.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5813 Barrier Materials
Description: This course will examine how we can use geomimicry of shales to design and produce effective long-lasting engineered barrier materials, starting with improving cements. Previously offered as PETE 5110.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 5990 Special Problems in Petroleum Engineering
Prerequisites: Graduate standing and consent of instructor.
Description: Independent study on specific topics in drilling, production and reservoir engineering. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

PETE 6000 Doctoral Thesis
Prerequisites: Consent of major professor.
Description: The doctoral candidate registers for 1-15 semester credit hours each semester during which laboratory work is in process. Methods used in research and thesis writing. An original investigation of a problem in Petroleum Engineering and its report in a dissertation. Offered for variable credit. Offered for variable credit, 1-15 credit hours, maximum of 54 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

PETE 6010 Petroleum Engineering Seminar
Description: This seminar course will expose Petroleum Engineering graduate students and members of the OSU academic community to a broad range of current research topics in petroleum engineering and related fields. Offered for variable credit, maximum of 10 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 6110 Advanced Topics in Petroleum Engineering
Prerequisites: Consent of major professor.
Description: Specialized course addressing advanced topics in drilling, production, or reservoir engineering. May be repeated for credit if subject matter varies. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

PETE 6813 Research Methods in Petroleum Engineering
Prerequisites: M.S. or Ph.D. candidacy in petroleum engineering or consent of instructor.
Description: The course covers the required topics to prepare, conduct, document, and communicate an independent research project in Petroleum Engineering. May not be used for degree credit with CHE 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

Philosophy (PHIL)

PHIL 1023 Who Do You Think You Are? (H)
Description: Is who you think you are really who you are? Is there more to understanding who we are than we can know with the mind? Are there depths of our personal identity that go beyond our ordinary notions about being "somebody" ? Does discovering who and what I am have any impact on the quality of my life? This course explores these issues from both philosophical and spiritual sources, utilizing practices designed to help bring direct, transformative insights into the question of who and what we really are so that we might enjoy a life of peace, love and joy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1113 Introduction To Philosophy (H)
Description: This course explores several major philosophical questions, like can we know whether God exists; whether we have free will; what makes an action morally right or wrong; what our ethical obligations are to asylum seekers, Impoverished Individuals across the world, fetuses, terminally ill individuals; what a fair and just society looks like, and more. Previously offered as PHIL 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1213 Philosophies of Life (H)
Description: This course introduces students to the history and development of philosophy with a special focus on ethics and contemporary moral arguments. By studying great philosophical works, this class enables students to think a critical manner about their own ideas and beliefs concerning philosophical problems and important issues that affect our lives. The goal of the course is to aid students in examining multiple perspectives on sometimes controversial topics, evaluate and assess articles on these topics, and allow students to form their own arguments on these issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1313 Logic and Critical Thinking (Q)
Description: Formal and informal reasoning, common fallacies, definitions and language functions, patterns of explanation. Practical criticism and development of everyday arguments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 2003 Local Issues and Ethical Controversies (H)
Description: This course will familiarize students with current and highly debated moral issues that affect their lives and the lives of those in their community. Moral theories will be applied to critical issues that affect Oklahoma and surrounding Southwestern states. Students will learn how to articulate both sides of these debated issues, as well as how to engage in civil discourse with others with whom they may disagree.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2013 Philosophical Classics (H)
Description: Classic, renowned works by a variety of great thinkers from Plato and Descartes to Berkley, Nietzsche, Dewey, Quine, Nussbaum, West, and many others. As a student you will be engaging with some of the most interesting, thought-provoking ideas in the history of Western philosophy, ranging from the "Allegory of the Cave" and the "Ontological Argument" to existential ethics, pragmatic epistemology and feminist political theory. Previously offered as PHIL 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2043 Philosophy of Film (H)
Description: This course introduces students to the various philosophical issues surrounding film. Topics will include: the nature of cinema, authorship and narration, film's relationship with the emotions, genre, and cinematic depictions of love, violence, race and gender. Various film techniques will also be discussed, including cinematography, lighting, editing, scoring and sound design. These issues will be dealt with by making use of philosophical texts. Course previously offered as PHIL 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2053 Philosophy in Literature (H)
Description: Selected literary works examined for philosophical ideas and themes. Attention to the interrelation of form and content. In this class students will be introduced to major philosophical themes in great literature spanning across a variety of genres, from existential novels and epic poems to science fiction, horror, mystery, drama and more. Course previously offered as PHIL 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2313 Asking the Right Questions (Q)
Prerequisites: PHIL 1313 or concurrent enrollment in PHIL 1313 or consent of instructor.
Description: We're bombarded with scientific, moral, and political claims that are said to be backed by surveys or studies. Yet the claims frequently contradict each other. We hear that the economy does better when one political party is in charge, and then the next day we hear that it does better when a different party is in power. This course is meant to help students discover when they can trust a claim and the limitations of claims. Students will learn how to understand the logic behind claims and how to separate legitimate claims from those which are illegitimate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 2413 Global Ethics (GH)
Description: Issues like poverty, climate change, immigration and the development and distribution of medical treatments can best be understood as global issues. In Global Ethics, students will study a variety of global ethical challenges and learn how those from different countries/cultures understand and respond to these challenges. The goal of this course is not to convince students that one particular viewpoint is correct. Rather, students will be encouraged to determine what they believe is the best way to understand and ethically respond to some of the global ethical issues that currently challenge u
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

PHIL 2443 Ethics: Left & Right (H)
Description: In this course students will explore multiple “sides” of social, political, and moral issues which tend to foster stark divisions in our society. The course aims to cultivate, develop, and practice the skill of engaging openly and fairly with viewpoints that we do not immediately agree with. Students will critically examine arguments from different “sides” of moral issues and political debates, attempting to illuminate strengths and weakness of either.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2483 Ethics & Sports (H)
Description: This course examines some of the many ethical questions raised by engagement with sport. Some topics to be explored include: the ethics of football In the face of health concerns; the ethics of “doping” or enhancement; what to do about morally problematic team names and mascots; whether it is moral to root for teams with morally problematic individuals; the most ethical approach to compensating athletes; how to foster greater inclusion in sport; and how to use the platform of sport to foster greater inclusion in society more generally.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2513 Philosophy, Self, & Society (H)
Description: A philosophical investigation of diverse cultural attitudes, values, and experiences. Our central task is to examine different notions of what it is to be human, and we will do so by looking into ethical and religious philosophies that emerge from a range of cultures around the globe. Topics include: the nature of the self, the role of love in human life, mysticism, personhood, ethics and obligation, and aesthetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2573 Drugs, Philosophy & Society (H)
Description: This course will explore the various philosophical issues that arise from humankind’s relationship with drug use. Considerable time will be spent analyzing the ethical issues that arise within modern U.S. drug policy. Topics include: arguments for and against drug legalization, the drug war and race, psychedelic drugs and mystical experiences, and the emerging cannabis industry in North America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2593 Mystics & Skeptics (H)
Description: This course will explore the complex relationship between mysticism, skepticism, and philosophy. Our exploration of these themes will take us into some classic epistemological problems regarding the limits of reason, and the implications of these limitations for religious faith. Other topics include: theological predication, the problem of divine hiddenness, and religious diversity. Same course as REL 2593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2890 Honors Experience in Philosophy
Prerequisites: Honors Program participation and concurrent enrollment in a designated PHIL course.
Description: A supplemental Honors experience in Philosophy to partner concurrently with designated Philosophy course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 2990 Sophomore Seminar in Philosophy
Prerequisites: 3 credit hours of Philosophy or consent of instructor.
Description: A seminar-style course on varying philosophic topics intended for sophomores, taught by faculty members on a rotating basis. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3003 Symbolic Logic (Q)
Description: Propositional logic and predicate logic with identity, as well as the formal analysis of language. This includes: understanding and applying common fallacies and irrational techniques of persuasion, formulating proper definitions, looking at the functions of language, analyzing patterns of explanation, and comparing and contrasting informal and formal reasoning. Practical criticism and the development of everyday arguments are also a key part of this course. Previously offered as PHIL 4303. May not be used for degree credit with PHIL 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 3113 Ancient Greek Philosophy (H)
Prerequisites: PHIL 1113, PHIL 1313 or PHIL 2013, or any 3000-4000 level PHIL course.
Description: This course explores the philosophical inventions of the Ancient Greeks and highlights the contemporary relevance of their ideas for us today. The course covers the physical philosophy of the Presocratics, the dramatic philosophy of Plato, the organic philosophy of Aristotle, and the happy lives of the Epicureans and Stoics. Focus is given to the following questions: What is the structure of reality? How can we know the world? What is the good-life and how can we achieve it? The answers given by the Ancient Greeks are surprisingly still relevant and interesting to us today.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3213 Philosophy in the Age of Enlightenment (H)
Prerequisites: PHIL 1113 or PHIL 1313 or PHIL 2013, or any 3000-4000 level PHIL course.
Description: Major philosophers and problems in Western thought from the 17th through the 18th century. Emphasis on Descartes, Hume and Kant.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3313 19th to 21st Century Philosophy (H)
Description: In this course we cover a wide range of topics and philosophical traditions that have been very influential in the last two centuries of Western philosophy. During this time such movements as pragmatism, deconstruction, romanticism, idealism, phenomenology, feminism, postmodernism, Marxism, and analytical philosophy became prevalent. We will therefore explore such diverse thinkers as Nietzsche, Hegel, Heidegger, Nussbaum, Quine, Butler, Derrida, James, and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3413 Ethical Theory (H)
Description: Contemporary and classical views on the nature of moral judgments, moral value, relativity and objectivity, freedom and responsibility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3433 Happiness & Well-being (H)
Description: What is happiness? And what is the relationship between a happy life and a good life? The course explores both the science and philosophy of happiness and well-being as well as the relationship between the two.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3513 Social & Political Philosophy (H)
Description: Major social thinkers and contemporary issues. These issues include communitarianism, individualism, power, authority, violence, revolution, liberalism, conservatism, feminism, human rights, freedom, communism, capitalism, and so forth. Many thinkers will be included, such as Aristotle, Locke, Rousseau, Hobbes, Machiavelli, Butler, Rawis, Nozick, Zizek, Arendt, Baudrillard, 8erlin, and more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3523 Medieval Philosophy (H)
Description: The central focus is on the philosophical and theological problems that engaged the minds of medieval thinkers from Christian, Islamic, and Jewish traditions, including Abelard, Avicenna, Averroes, Maimonides, Aquinas, Scotus, and Ockham.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3553 Philosophy of Dreams (H)
Description: Through philosophical writings about dream-related topics, this course examines questions related to metaphysics, epistemology, and ethics. This involves a focused look at the deep questions and strange phenomena that dreaming provokes. By the end of the course, students should have an increased understanding of the history of philosophy and dreaming, popular moral theories, and the perplexities surrounding dreaming. At the same time, students will develop the ability to evaluate and think critically about philosophical writings and theories about dreams.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3613 Philosophy of Religion (H)
Description: This course introduces students to the major topics in philosophy of religion, as found in the Western monotheistic tradition. Topics include: the relationship between faith and reason, the problem of evil, arguments for God's existence, theological predication and religious language, religious experience, soteriology, and miracles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3623 Philosophy of Race (DH)
Description: Philosophy of Race investigates race discourse within the texts of contemporary philosophers. The course begins with an examination of the concept of race from antiquity through postmodernity. Course discussion focuses on the biological veracity of race, the rise of race as a sociopolitical concept, and the role of modern philosophers in shaping the prevailing perception of people of non-European descent in the West and the implicit justification of slavery, which pervades their texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3633 MLK, Jr., Malcolm X, & Philosophy of Race (DH)
Description: Critical examination of African American philosophers and other Black thinkers of the Dlaspora In an effort to understand the philosophical significance of the Black experience. Since Martin Luther King, Jr. and Malcolm X are widely accepted as the apex of the two major strains of Black-American philosophy this course will closely read their works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3703 Ethics & Animals (H)
Description: This course is intended to introduce students to ethical theories while also applying them to a wide range of moral concerns surrounding animals. The central goal of this course is to help students develop the skills needed to construct philosophical arguments and analyze multiple perspectives related to the ethical treatment of animals. Topics may include: animal welfare, rights, consciousness, food, agricultural industry, captivity, hunting, and companionship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3713 Philosophy of Education
Description: Classical and contemporary philosophers who have systematically developed their ideas about education, including Plato, Aristotle, Rousseau, Locke, and Dewey.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3733 Environmental Ethics (H)
Description: This course explores human ethical obligations as they related to the broader natural environment in the light of two issues: contemporary concerns about human-induced changes to the environment (pollution, resource depletion, climate change, etc.), and the question of how distinct ways of conceiving the human relationship to nature impact human behavior and thereby the trajectory of these environmental changes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3743 Science and Human Values (H)
Description: A general introduction to the history of western science, stressing cultural values affecting scientific innovations, as well as the effects of scientific innovations on cultural values. Important examples from the history of astronomy and physics and from the history of evolutionary biology will be examined. Students will critically examine the relationship(s) between scientific work and broader cultural concerns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3773 Social Media & Philosophy (H)
Description: Students will read and reflect upon some of the most influential theories on social media today. Discussions will include the competing analyses of Bauerlein, Carr, Shirky and many others who debate the influences of modern media on a wide array of topics: social identity, friendship, love, knowledge, communication, individuality, commerce, entertainment, creativity, consumerism, political activism, and democratic ideals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3783 Ethics of Artificial Intelligence (H)
Description: Case-based examination of ethical issues surrounding the development and implementation of artificial intelligence. Topics include ethical learning, responsibility and automated systems, moral machines, explainable artificial intelligence, algorithmic bias, automation and work, human-robot interaction, machine consciousness, the moral status and rights of robots, and super-intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3793 Philosophies of Love & Sex (H)
Description: In this class students are going to engage a variety of theories on sex, love, and gender. Some of these theories emphasize the role of our evolutionary past on how we pursue intimate relationships. On this view, much of our desire for sex and love is influenced by the reproductive choices of our ancestors. Other theories, however, stress the rich diversity of social practices historically and across the world today. Students will therefore be exposed to competing ideas on marriage, sexual preferences, promiscuity, hormonal differences, gender socialization, and so forth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3803 Ethics, Society, and Business (H)
Description: Ethical issues in business, such as employer-employee duties and loyalties, advertising uses, preferential treatment practices. Analytic grounding in basic theories of ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3813 American Philosophy (H)
Description: Dominant trends in American philosophy, with an emphasis on Pragmatism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3823 Engineering Ethics
Description: Philosophical analysis of moral issues in engineering practice, such as whistle blowing, conflicts of interest and product liability. Professional codes of ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3833 Biomedical Ethics (H)
Description: Moral problems surrounding medical practice, biomedical research, and health policy. Students will develop and use moral reasoning skills to navigate complex issues surrounding the provision of healthcare and medical practice. Topics may include physician assisted suicide, genetic engineering, human and animal experimentation, euthanasia, cloning, reproductive rights, etc. A special emphasis will be placed on the impact of health policy and medical decision-making on marginalized persons, communities, and populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3843 Philosophy of Law (H)
Prerequisites: Upper-division standing.
Description: Philosophical issues related to U.S. law and relationship between law and morality, liability, culpability, and enforcement. Questions will be debated, like: What is "the law"? Do we have an obligation to obey the law? What about unjust laws? How should we interpret statutes and constitutions? What is the relationship between law and morality? Is it moral to lock someone in a room if they break the law? Should people be hospitalized instead? Should legislatures pass laws that prohibit us from engaging in behavior that only harms ourselves? What about laws that require us to help others?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3853 Pragmatism (H)
Description: A survey of Pragmatism and its history. While the course will primarily focus on two major figures of American Pragmatism, Charles Peirce and William James, we will also explore how pragmatism developed in the 21st century and track its influence in both philosophy and science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3873 Power, Oppression, & Privilege (DH)
Description: This course introduces students to various concepts, insights, and methodological tools within feminist philosophy. Questions to be addressed include: How should we understand feminism? What is intersectionality? How should we understand concepts such as power, privilege, and oppression? How should we think about sex and gender? What is sexism and misogyny and how do they operate in our society? What insights can feminist thinking bring to bear on questions of health care, sport, dating, and sexuality? What does an ethical response to injustice require?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3883 Gender, Race, and Class in Healthcare (DH)
Description: This course philosophically examines the relationships of individuals and social groups to healthcare research and clinical practice, including the influences of stereotyping, microaggressions, and implicit bias on the healthcare experiences of patients who are members of marginalized groups. This course is suitable for those interested in philosophical issues around medical practice and those who hope to practice medicine with a greater awareness of issues of health injustices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3890 Advanced Honors Experience in PHIL
Prerequisites: Honors Program participation and concurrent enrollment in a designated PHIL course.
Description: A supplemental Honors experience in philosophy to partner concurrently with designated upper-division PHIL course(s). This course adds a different Intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 3913 Existentialism (H)
Prerequisites: Three credit hours of philosophy.
Description: This course explores a range of philosophers and literacy sources, tracing existentialism from antiquity to present day. Students will be challenged to not simply understand these texts, but to engage them in such a way as to practice these texts, but to engage them in such a way as to practice living in and through the ideas of these great thinkers. This course is just as much about discovering the breadth of the existential tradition as it is about realizing the profound freedom, limitlessness, and potential of one's own existence despite moral absurdity, subjective epistemology, and the ever-present specter of death.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3920 Contemporary Philosophical Problems
Description: Selected contemporary problems and discussions. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3933 Creation and Evolution
Description: Critical investigates the most prevalent debate between religion and science; namely, Darwinian Evolution vs. (so-called) Scientific Creationism (including Intelligent Design advocates). What is the available scientific evidence? What are the prevailing value differences? What are the legal precedents and prospects? This is the most complete and comprehensive investigation of these issues available on campus.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3943 Asian Philosophy (GH)
Description: This course surveys four Eastern philosophies from South and East Asia: Hinduism, Buddhism, Confucianism and Daoism. Using primary sources, we will explore the main themes and practices of these schools of thought, while also demonstrating that each tradition offers unique teachings on the nature of reality, the Divine, and self-identity, while also offering a set of practices designed to help one realize fundamental truths and live better.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

PHIL 4000 Senior Thesis in Philosophy
Prerequisites: PHIL 4990 and consent of instructor.
Description: Guided individual work on a thesis under the direction of a faculty member, with a second faculty reader and oral presentation. Intended for senior standing undergraduate Philosophy majors. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4003 Mathematical Logic and Computability
Prerequisites: PHIL 3003 or MATH 3613 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Löwenheim-Skolem theorem, undecidability of first order logic, Gödel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Gödel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as MATH 4003. May not be used for degree credit with PHIL 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4013 Perspectives on Death and Dying (H)
Description: Issues that arise as individuals confront the fact of mortality. Dying patients, the ethical issues of euthanasia and suicide, the process of grief, death in literature and the arts, and philosophical and religious views on immortality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4113 Philosophy & the Arts (H)
Description: Nature of aesthetic objects and experiences; form, meaning and value in the arts; the function of art in society; criteria of criticism of the arts. As such, we will cover a wide diversity of writers including Aristotle, Plato, Kant, Nietzsche, Hegel, do Beauvoir, Adorno, Danto, and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4313 Philosophy of Mind (H)
Description: What is the 'Mind'? How can a human brain create thoughts, sensations, emotions, and abstract ideas? This class examines the nature of the brain, mind, soul, and self with the tools of philosophy, psychology, psychiatry, neuroscience, and evolutionary biology. Is mental content completely 'in the head' and private? or is it irreducibly tied to external input and publicly accessible? Are inner feelings and consciousness incompatible with physical explanations?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4543 Philosophy of Language
Prerequisites: PHIL 1313 or PHIL 3003.
Description: A survey of the development of the philosophy of language, including works of philosophers such as Frege, Wittgenstein, Russell, Strawson, Searle, Donnellan, Grice, and Kripke. May not be used for degree credit with PHIL 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4553 Contemporary Ethical Theory
Prerequisites: PHIL 3413 or consent of instructor.
Description: Debate in ethical theory since Moore. The naturalistic fallacy, intuitionism, and value realism. May not be used for degree credit with PHIL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4713 Philosophy of Science (H)
Description: Is there a single 'Scientific Method', or are there a number of methods used in different sciences? Does using this method (or these methods) lead to truth concerning the physical world, or models that allow us to successfully navigate within it? What is the relationship(s) between science and other human activities (including ethics and religion)? This course will critically investigate these issues and others using examples from many disciplines in the history of science as well as current developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4723 Philosophy of Psychology (H)
Description: A survey of problems in philosophy of psychology, including the nature of psychology and its relation to natural sciences, the cognitive architecture of our minds, which cognitive capacities are innate and which are developed, the relationship between the brain, body, and external world, how we understand other minds, how language affects thought.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4733 Philosophy of Biology (H)
Description: There have been many models of 'Darwinian Evolution' since The Origin of Species in 1859. How did each develop and what are the differences among them? How solid is the melding of evolution, genetics, and molecular biology established in the 1970s and 1980s? Do new developments indicate that this synthesis needs to be extended, or replaced with something new?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4890 Internship in Philosophy
Prerequisites: Consent of instructor.
Description: Directed internship experience in a philosophy-related professional work setting. Students must have an approved internship that will provide philosophy experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4943 Indian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in two main traditions of Indian Philosophy: Hinduism and Buddhism. How these schools present the fundamental nature and knowledge of reality, human existence, the divine, and enlightenment. May not be used for degree credit with PHIL 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4953 East Asian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in the Chinese and Japanese traditions: Confucianism, Daoism and Zen. How these schools present the fundamental nature and knowledge of reality, human existence, community and enlightenment. May not be used for degree credit with PHIL 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4983 Knowledge and Reality
Prerequisites: 12 credit hours of philosophy.
Description: This course surveys topics in epistemology, a branch of philosophy that asks the following types of questions. What can we know? How do we come to know it? What value does knowing have for our lives? We will also survey questions in metaphysics, a branch of philosophy that explores the nature of reality. For example, are properties like redness just as real as things like tables and chairs? What is a person? What does contemporary science say about what the world is made up of? May not be used for degree credit with PHIL 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4990 Special Studies in Philosophy
Description: Selected philosophical topics or works. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in philosophy.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 5000 Master's Thesis in Philosophy
Description: Supervised individual work on a thesis for a master's degree. Offered for variable credit, 1-6credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5003 Symbolic Logic
Description: Propositional logic and predicate logic with identity. Formal analysis of language. May not be used for degree credit with PHIL 3003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5013 Mathematical Logic and Computability
Prerequisites: PHIL 3003 or MATH 3613 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Löwenheim-Skolem theorem, undecidability of first order logic, Gödel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Gödel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as MATH 4003. May not be used for degree credit with PHIL 4003 or MATH 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5100 Report Research
Description: Supervised individual work on a report for a master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5210 Seminar on a Major Philosopher
Prerequisites: Three courses in philosophy.
Description: The writings of a major philosopher and related material. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5303 Topics in Philosophy of Religion
Description: An examination of central topics in the philosophy of religion, such as the existence of God, the problem of evil, divine attributes, miracles, revelation, faith and reason, religious pluralism and exclusivism, and morality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5310 Seminar on a Field of Philosophy
Description: Three courses in philosophy. Selected topics in one field of philosophy. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5313 Topics in Social Political Thought
Description: Consideration of a single topic (e.g. justice), topics (e.g. distributive justice and citizenship) of a single philosophical school, or movement (e.g. Marxism) or several movements and schools (e.g. Marxism and liberalism).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5323 Seminar In Ancient Philosophy
Prerequisites: PHIL 3113.
Description: Philosophical problems that characterize ancient Philosophy: form and matter, one and many, universal and particular, actuality and potentiality, stability and change, substance and accidents, first principles and elements. Close reading of Plato and Aristotle.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5333 Seminar In Modern Philosophy
Prerequisites: PHIL 3213 or PHIL 3313.
Description: Examination of the metaphysical and epistemological systems of philosophers over 17th-19th century Europe such as Descartes, Spinoza, Locke, Leibniz, Berkeley, Hume, Kant and Hegel.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5343 Seminar in East and West Comparative Philosophy
Prerequisites: PHIL 3943.
Description: Critical comparison between West European and East Asian traditions of philosophy, such as being and non-being, the nature of truth, self, human being, ethics, human rights, community, and religion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5353 Seminar in Contemporary Continental Philosophy
Prerequisites: PHIL 3213 or PHIL 3313.
Description: Themes such as presence and absence, intentionality and constitution, meaning and "being," identity and difference, history and consciousness, practice and power, construction and deconstruction. Philosophers such as Merleau, Husserl, Heidegger, Sartre, Derrida, and Faucault.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5363 Topics In Metaphysics
Prerequisites: PHIL 3113 or PHIL 3213 or PHIL 4983.
Description: Selected topics that may be approached from an historical or contemporary standpoint, such as idealism, realism, causation, time, universals, personal identity, possibility and free will.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5373 Contemporary Epistemology
Prerequisites: PHIL 3213 or PHIL 3113 or PHIL 4983.
Description: Recent approaches to the theory of knowledge. Origin and justification of belief and certainty, roles of the senses and the mind, and the nature of truth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5383 Seminar In American Philosophy
Description: Selected philosophical schools or traditions influential in American thought, such as transcendentalism, pragmatism, or naturalism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5393 German Idealism
Prerequisites: PHIL 3113 or 3213.
Description: Selected major works of post-Kantian German Philosophy, such as the nature of a philosophical system, identity, and self-consciousness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5423 Topics In Ethical Theory
Prerequisites: PHIL 3413.
Description: Central problems in ethical theory, such as ethical realism/anti-realism, motivational internalism/externalism, and problems within specific normative systems.Written Description.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5433 Topics In Philosophy Of Law
Prerequisites: PHIL 3843.
Description: In-depth examination of selected topics in philosophy of law, such as punishment, jurisprudence, and principles of legislation. Seminar format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5443 Topics In Biomedical Ethics
Prerequisites: PHIL 3833.
Description: In-depth examination of selected topics in biomedical ethics, such as implications of the Human Genome Project, ethics of human reproduction, and research ethics. Emphasis on contemporary philosophical thought. Seminar format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5453 Topics in Professional Ethics
Description: In-depth study of ethical issues faced by business and engineering professionals (e.g., social effects of advertising, environmental impact of professional practice, product safety and consumer protection, whistleblowing and confidentiality).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5510 Research Topics in Philosophy
Prerequisites: Consent of graduate adviser or department head.
Description: Individual research on topics related to the student's interests and/or thesis topic(s). Offered for variable credit, X=1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5543 Philosophy Of Language
Prerequisites: PHIL 5003 or consent of instructor.
Description: A survey of the development of the philosophy of language, including works of philosophers such as Frege, Wittgenstein, Russell, Strawson, Searle, Donnellan, Grice, and Kripke. May not be used for degree credit with PHIL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5553 Contemporary Ethical Theory
Prerequisites: PHIL 3413 or consent of instructor.
Description: Debate in ethical theory since Moore. The naturalistic fallacy, intuitionism, and value realism. May not be used for degree credit with PHIL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5610 Philosophical Issues in Education
Description: Contemporary issues in educational theory and practice. The relation of education to political thought, religion, public law and culture. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5910 Research Problems in Philosophy
Prerequisites: Consent of instructor and department head.
Description: Individual or group research on specific philosophical problems. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5943 Indian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in two main traditions of Indian Philosophy: Hinduism and Buddhism. How these schools present the fundamental nature and knowledge of reality, human existence, the divine, and enlightenment. May not be used for degree credit with PHIL 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5953 East Asian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in the Chinese and Japanese traditions: Confucianism, Daoism and Zen. How these schools present the fundamental nature and knowledge of reality, human existence, community and enlightenment. May not be used for degree credit with PHIL 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5983 Knowledge and Reality
Prerequisites: 12 credit hours of philosophy.
Description: This course surveys topics in epistemology, a branch of philosophy that asks the following types of questions. What can we know? How do we come to know it? What value does knowing have for our lives? We will also survey questions in metaphysics, a branch of philosophy that explores the nature of reality. For example, are properties like redness just as real as things like tables and chairs? What is a person? What does contemporary science say about what the world is made up of? May not be used for degree credit with PHIL 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

Physician Assistant (PA)

PA 5010 Special Topics
Description: This course is used to ensure students enrolled in the PA program have comprehensive retention from successfully completed coursework. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5011 Introduction to Pharmacology
Prerequisites: Acceptance into the PA program.
Description: General principles of pharmacokinetics and pharmacodynamics of drugs used to treat human disease. May not be used for degree credit with BIOM 6771.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5015 Human Anatomy
Prerequisites: Acceptance into the PA program.
Description: This course presents gross structure of the human body using a regional approach. Topics include topographic and functional anatomy, and clinical correlations as appropriate for graduate students in their intended specified program. The course provides the descriptive basis for understanding human structure and function encountered in succeeding courses and professional practice. May not be used for degree credit with BIOM 5122.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: PA Course Anatomy fee of $125 applies.

PA 5021 Fundamentals of Medical Imaging
Prerequisites: Acceptance into the Physician Assistant program.
Description: To introduce the student to the fundamental principles, equipment and common methods and procedures of radiography. May not be used for degree credit with MAT 5412.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5031 Introduction to Microbiology and Immunology
Prerequisites: Acceptance into the PA program.
Description: Infectious agents, including viruses, bacteria, fungi and parasites, their structure, genetics and mechanisms of pathogenesis in human disease. May not be used for degree credit with BIOM 6791.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5041 Laboratory Medicine
Prerequisites: Acceptance into the PA program.
Description: Laboratory Medicine for the PA is designed to provide students with a background in various laboratory tests used to help in differentiating disease processes and confirming diagnoses. It is intended to be introductive and generalized concepts in the use and interpretation of laboratory tests with the understanding that more in-depth discussion will be continued in the individual systems courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5112 Developing the Physician Assistant I
Prerequisites: Acceptance into the PA program.
Description: Developing the Physician Assistant is an ongoing course that extends throughout the physician assistant program curriculum. The course is designed to develop in PA students the skills and motivation necessary to become successful, compassionate, and competent physician assistant and life-long learners. Developing the Physician Assistant is intended to serve as a bridge between the classroom activities of the didactic year and the clinical rotations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5113 Respiratory System
Prerequisites: Acceptance into the PA program.
Description: Provides integrated biomedical study of the human respiratory system. May not be used for degree credit with BIOM 6870.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5114 Applied Clinical Medicine I
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: PA Applied Clinical Med fee of $125 applies.

PA 5121 Rural and Underserved Populations
Prerequisites: Admission into the Physician Assistant Program.
Description: This course will educate students on the unique factors of providing healthcare in rural and underserved communities.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5124 Cardiovascular System
Prerequisites: Acceptance into the PA program.
Description: Provides integrated biomedical study of the human cardiovascular system. May not be used for degree credit with BIOM 6810.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5125 Nervous System
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5132 Hematology System
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5134 Applied Clinical Medicine II
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health
Additional Fees: PA Applied Clinical Med fee of $125 applies.

PA 5144 Genitourinary System
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5163 Developing the Physician Assistant II
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5223 Gastrointestinal System
Prerequisites: Acceptance into the PA program.
Description: Provides integrated biomedical study of the human gastrointestinal and hepatic systems. May not be used for degree credit with BIOM 6820.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5233 Psychiatry System
Prerequisites: Admission into the PA program.
Description: Provides clinical presentation, differential diagnosis, etiology (including pathophysiological etiologies), basic pharmacology of medications used to treat the disorder, clinical pharmacology, and psychosocial treatments. May not be used for degree credit with BIOM 6880.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5242 Developing the Physician Assistant III
Prerequisites: Acceptance into the Physician Assistant Program, PA 5112 Developing the Physician Assistant I, PA 5222 Developing the Physician Assistant II.
Description: Developing the Physician Assistant is an ongoing course that extends throughout the physician assistant program curriculum. The course is designed to develop in PA students the skills and motivation necessary to become successful, compassionate, and competent physician assistant and life-long learners. Developing the Physician Assistant is intended to serve as a bridge between the classroom activities of the didactic year and the clinical rotations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5243 Endocrine System
Prerequisites: Acceptance into the PA Program.
Description: The Endocrine System Course is designed to integrate biomedical and clinical knowledge to provide the student with the background to address basic and clinical aspects of the endocrine system. The course will include the physiology, anatomy, and pathology of the endocrine system, as well as common medical conditions that present to the primary care and/or emergency settings, and the behavioral, pharmacological, or surgical treatments that correct or manage such conditions. Same course as BIOM 6900.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5253 Reproductive System
Prerequisites: Acceptance into the Physician Assistant Program.
Description: Provides integrated biomedical study of the male and female human reproductive systems and reproductive biology. May not be used for degree credit with BIOM 6860.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5263 Musculoskeletal/Integumentary System
Prerequisites: Acceptance into the PA Program.
Description: Provides integrated biomedical study of the human musculoskeletal system and associated disorders. May not be used for degree credit with BIOM 6840.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5273 Applied Clinical Medicine III
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Allied Health

PA 5301 Research Methods for Evidence-Based Medicine
Prerequisites: Acceptance into the PA Program.
Description: This course is designed to provide the basic understanding for why, how, and what research is conducted for evidence-based medicine. It assists in decision-making in medical practice and improves problem-solving skills.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5302 Developing the Physician Assistant IV
Prerequisites: Acceptance into the Physician Assistant Program; PA 5112 Completion of Developing the Physician Assistant I, PA 5222 Completion of Developing the Physician Assistant II, PA 5242 Completion of Developing the Physician Assistant III.
Description: Developing the Physician Assistant is an ongoing course that extends throughout the physician assistant program curriculum. The course is designed to develop in PA students the skills and motivation necessary to become successful, compassionate, and competent physician assistant and life-long learners. Developing the Physician Assistant is intended to serve as a bridge between the classroom activities of the didactic year and the clinical rotations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5404 Family Medicine I
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Students are required to have clinical training in family medicine. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They participate in direct patient care and learn what it takes to be a primary care provider.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5414 Family Medicine II
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Students are required to have clinical training in family medicine. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They participate in direct patient care and learn what it takes to be a primary care provider.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5424 Internal Medicine I
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Students are required to have clinical training in internal medicine. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They participate in direct patient care in the outpatient and inpatient settings. They gain experience in what it takes to be a primary care provider.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5434 Internal Medicine II
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Students are required to have clinical training in internal medicine. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They participate in direct patient care in the outpatient and inpatient settings. They gain experience in what it takes to be a primary care provider.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5444 Emergency Medicine I
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Emergency Medicine Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students are involved in direct patient care in the emergency room.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5454 Emergency Medicine II
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: Emergency Medicine Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students are involved in direct patient care in the emergency room.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5464 Obstetrics & Gynecology
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: An OB/GYN Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develops procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students apply knowledge from pre-clinical coursework to those clinical problems encountered while performing clerkship duties.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5474 Pediatrics
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: A Pediatric Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students apply knowledge from pre-clinical coursework to those clinical problems encountered while performing clerkship duties.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5484 Psychiatry
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: A Psychiatric Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students apply knowledge from pre-clinical coursework to those clinical problems encountered while performing clerkship duties.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5494 General Surgery
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: A General Surgery Rotation is required as part of the clinical training. During this rotation, students extend their knowledge of clinical medicine and develop procedural skills. They advance their base of knowledge in pursuit of answers to questions that arise during patient care through assigned readings and interactions with the medical staff. Skill development occurs as students are directly involved in surgery cases.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5504 Medicine Elective I
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: This rotation will consist of a 4-week block, during which the student, under supervision of a clinician serving as a preceptor, expands their knowledge of clinical medicine and develops procedural skills.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5514 Medicine Elective II
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: This rotation will consist of a 4-week block, during which the student, under supervision of a clinician serving as a preceptor, expands their knowledge of clinical medicine and develops procedural skills.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5524 Medicine Elective III
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: This rotalion will consist of a 4-week block, during which the student, under supervision of a clinician serving as a preceptor, expands their knowledge of clinical medicine and develops procedural skills.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5534 Surgery Elective
Prerequisites: Admission into the Physician Assistant Program; completion of the Didactic portion of the PA curriculum.
Description: This rotation is an elective in a surgical subspecialty of the student's choice. This clinical rotation provides hands-on experience in the clinic, hospital, and surgical suite. It will allow a student to advance their base of knowledge in surgical subspecialties through direct patient care. Skill development occurs as students apply knowledge from pre-clinical coursework to those clinical problems encountered while performing clinical duties.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

PA 5544 Medicine Selective
Prerequisites: Acceptance into the PA Program.
Description: This rotation is selected for the student to enhance specific learning opportunities. This clinical rotation provides hands-on experience In the clinic, hospital, and surgical suite. It will allow a student to advance their base of knowledge in surgical subspecialties through direct patient care. Skill development occurs as students apply knowledge from pre-clinical coursework to those clinical problems encountered while performing clinical duties.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Allied Health

PA 5554 Professional Enrichment
Prerequisites: Acceptance into the PA Program.
Description: This course is designed to enhance the professionalism of individual students according to their interest, This course offers the students the ability to serve as a research assistant In an ongoing project at CHS or serves as a preceptorship to provide a structured, supportive bridge when transitioning from a student to a practicing PA.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Graduate
Schedule types: Independent Study
Department/School: Allied Health

Physics (PHYS)

PHYS 1001 Frontiers of Physics
Prerequisites: Freshmen and sophomore Physics Majors only or consent of instructor.
Description: Student and faculty discussions of current research topics in physics. Includes laboratory tours and research presentation by faculty. Graded on pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 1014 Descriptive Physics (N)
Description: A survey course presenting the basic concepts and principles of physics with a minimum of mathematics. Motion, waves, temperature, electricity, magnetism, optics, atomic structure, and nuclear energy.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

PHYS 1114 College Physics I (LN)
Prerequisites: Minimum grade of "C" in MATH 1513 or higher.
Description: Algebra-based introductory course covering physics appropriate for applied and life sciences or pre-professional majors. Topics covered - Newtonian mechanics, fluids, thermodynamics, waves, and sound.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 1214 College Physics II (LN)
Prerequisites: PHYS 1114 or PHYS 2014 with a “C” or better or acceptable AP credit.
Description: A continuation of College Physics I for students in the applied-sciences, life-sciences, and pre-professional majors. Covers electricity, magnetism, optics, quantum physics, atomic and nuclear structure.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2014 University Physics I (LN)
Prerequisites: A minimum grade of "C" in MATH 2103 or MATH 2123 or MATH 2144 or acceptable AP credit.
Description: Calculus-based introductory course covering mechanics, waves, heat, and thermodynamics for physical science, math, and engineering majors.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2020 Special Topics in Physics (L)
Description: Laboratory exercises for College Physics I, College Physics II, University Physics I or University Physics II. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry

PHYS 2114 University Physics II (LN)
Prerequisites: PHYS 2014 with a “C” or better or acceptable AP credit.
Description: A continuation of University Physics I covering electricity, magnetism, and optics for physical sciences, math, and engineering majors.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2203 University Physics III
Prerequisites: PHYS 2114 with a grade of “C” or better or acceptable AP credit.
Description: A continuation of PHYS 2114 for all Physics majors. Topics include: heat, special relativity, and atomic and nuclear physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 2663 Physics in Medicine (N)
Description: Course will introduce important technologies widely used in modern medicine and the basic physics and physiology that underlies them. Examples include EKG machines, ultrasound imaging, laser surgery, x-ray, CT, PET, and MRI. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

PHYS 2890 Honors Experience in Physics
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Physics to partner concurrently with designated lower division PHYS course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Honors Credit

PHYS 3013 Mechanics I
Prerequisites: PHYS 2114 or equivalent, and MATH 2233 or concurrent enrollment.
Description: Mechanics of particles, systems of particles and rigid bodies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3113 Thermal Physics
Prerequisites: PHYS 2203 and MATH 2163 or concurrent enrollment.
Description: Thermometry, heat transfer, elementary theory of specific heat and the three laws of thermodynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3213 Optics
Prerequisites: PHYS 2114 and PHYS 3513, or consent of the instructor.
Description: Geometrical optics; interference, diffraction, dispersion, absorption, and polarization of light.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3313 Introduction to Semiconductor Device Physics
Prerequisites: PHYS 2114 or equivalent.
Description: An introduction to crystal structure, the quantum theory of solids, the physics of semiconductor materials and the pn junction, with an emphasis on applications to semiconductor devices. Same course as ECEN 3903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3323 Modern Laboratory Methods I
Prerequisites: PHYS 2014, PHYS 2114.
Description: Introduction to electric and electronic measurements and computer applications in experimental control, data collection and laboratory computation. Experiments on test instruments, integrated electronics, signal processing, computer interfacing, and data acquisition. Previously offered as PHYS 3322.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics

PHYS 3513 Mathematical Physics
Prerequisites: PHYS 2114 and MATH 2163.
Description: Physical applications of vectors, vector calculus and differential equations. Fourier analysis. Orbit geometry, coordinate systems and transformation of coordinates. Matrices and determinants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1414 or CHEM 1515.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer diagnosis, cancer treatment, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers, and to cancer patients or relatives. Same course as MICR 3553. May not be used for degree credit with PHYS 5553 and MICR 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Physics

PHYS 3623 Modern Laboratory Methods II
Prerequisites: PHYS 2014, PHYS 2114.
Description: Introduction to the operating principles and applications of modern physical methods used in research. Laboratory experiments with lasers, wave propagation, thermometry, radiation detection, optical interferometry, and spectroscopy.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics

PHYS 3713 Modern Physics
Prerequisites: PHYS 2203 with a “C” or better.
Description: This is the first course in the undergraduate quantum physics sequence. It covers the basic features of quantum mechanics as they relate to atomic systems, nuclear matter, photons, and electrons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4003 Computer Simulation Methods in Physics
Prerequisites: PHYS 3013, PHYS 3113, PHYS 3313 or consent of instructor.
Description: Introduction to computer simulation methods used in the physical sciences. Linear systems, nonlinear systems, molecular dynamics, Monte Carlo methods, cellular automata, simple quantum systems. Some knowledge of either C, FORTRAN, Pascal, or BASIC required. Previously offered as PHYS 3993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4010 Special Problems
Prerequisites: Consent of instructor.
Description: Individual laboratory work of an advanced nature. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Physics

PHYS 4113 Electricity and Magnetism
Prerequisites: PHYS 2114 and MATH 2233, or their equivalents.
Description: Electrostatic fields, magnetic fields of steady currents, induced EMFs, Maxwell's equations and introduction to electromagnetic wave theory. Vector analysis used.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4213 Introduction to Nuclear and Particle Physics
Prerequisites: PHYS 2114 and PHYS 3713 or consent of instructor.
Description: Survey of phenomenological aspects of nuclear and particle physics, photon and charged particle interactions with matter, particle detectors, particle accelerators, electromagnetic, strong and weak interactions, models of the nucleus, quark model of mesons and baryons, elementary particles, and symmetries in the Standard Model.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4223 Introduction to General Relativity
Prerequisites: Minimum grade of "C" in both PHYS 2203 and PHYS 3513 or consent of instructor.
Description: An introduction to Einstein's theory of relativity, including the metric description of spacetime, relativistic kinematics in flat spacetime, coordinate transformations, gravity as curved spacetime, and black holes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4263 Introduction to Solid State Physics
Prerequisites: PHYS 3013, PHYS 3713 or consent of instructor.
Description: Structure, specific heat, dielectric properties, lattice vibrations, free electron theory, band structure, and superconductivity of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4313 Molecular Biophysics
Prerequisites: PHYS 1214 or PHYS 2114.
Description: Survey of experimental and computational methods for determining the structure and function of biomolecular assemblies such as proteins and membranes. Techniques to be discussed include: X-ray diffraction, nuclear and electron spin resonance, optical spectroscopy, photobiophysics, kinetic modeling, molecular dynamics, Monte Carlo and homology modeling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4413 Modern Physics II
Prerequisites: PHYS 3013 and PHYS 3713.
Description: Atomic and X-ray spectra; one-dimensional Schroedinger equation; nuclear structure; introduction to statistical mechanics and elementary quantum statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4423 Mechanics II
Prerequisites: PHYS 3013.
Description: Lagrangian and Hamiltonian dynamics, calculus of variations, constrained systems, coupled oscillators, continuous systems and waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4503 Quantum Information
Prerequisites: PHYS 3713 Modern Physics.
Description: Quantum information is rapidly becoming one of the most important multidisciplinary fields in physics research. This class will focus on building an understanding of the core concepts behind this emerging area and why it is expected to revolutionize technology in the following decades. Topics will include measurements in quantum mechanics, the EPR paradox, classical and quantum information/computers, and quantum cryptography. May not be used for degree credit with PHYS 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4513 Introductory Quantum Mechanics
Prerequisites: PHYS 3713.
Description: Uncertainty principle, setting up Schroedinger equation (time dependent as well as time independent) and solving it for linear oscillator, hydrogen atom, periodic, and other potentials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4663 Radioactivity and Nuclear Physics
Prerequisites: PHYS 3713 or consent of instructor.
Description: Natural and artificial radioactivity, decay laws; absorption, detection and measurement of radiations; nuclear transformations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4712 Senior Project
Description: Advanced individual experimental projects. Project proposal, formal laboratory report, and oral presentation are required.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Physics

PHYS 4813 Electromagnetic Radiation
Prerequisites: PHYS 4113 with minimum grade of "C."
Description: Electromagnetic wave theory, reflection and refraction of electromagnetic waves; resonant cavities, wave guides, fiber propagation of electromagnetic waves; radiation sources; relativistic description of electromagnetic fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Honors Credit

PHYS 5000 Master's Thesis Research or Report
Prerequisites: Consent of major professor.
Description: Thesis research or report for master's degree. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5110 Seminar
Prerequisites: Graduate standing in physics.
Description: Special topics in physics. Offered for variable credit, 1-5 credit hours, maximum of 20 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5113 Statistical Thermodynamics and Kinetic Theory
Prerequisites: PHYS 3113.
Description: Fundamental concepts of thermodynamics: first, second and third laws; thermodynamic potentials. Statistical physics: Maxwell-Boltzman, Fermi-Dirac, Bose-Einstein distribution functions. Kinetic theory: transport phenomena, Boltzman H Theorem, the approach to thermodynamic equilibrium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5123 Geometrical Optics
Prerequisites: PHYS 3213 or consent of instructor.
Description: Foundations of geometrical optics, geometrical theory of optical imaging, geometrical theory of aberrations, image forming instruments. Same course as ECEN 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5133 Laser Spectroscopy
Prerequisites: PHYS 5163.
Description: Principles of different types of laser spectroscopy based on fluorescence, absorption, saturated absorption, absorption in a cavity: Infrared, Raman, light scattering, four wave mixing, CARS, phase conjugation, two photon absorption, double resonance, and multiphoton ionization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5163 Lasers
Prerequisites: PHYS 4813 or equivalent.
Description: Semi-classical description of absorption and emission of light by matter; effects of cavities and optical elements; theory of lasers' gas, liquid, solid state and semiconductor. Electro-optics. Techniques of mode-locking, Q-switching, phase conjugation, Fourier transform optics. An introduction to non-linear optics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5213 Statistical Mechanics
Prerequisites: PHYS 5113 and PHYS 5613 or consent of instructor.
Description: Classical and quantum mechanical distribution functions for independent particles; interacting classical and quantum systems, superfluidity, phase transitions and critical phenomena, approximation methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5220 Physics Topics for Teachers
Prerequisites: Teaching experience or consent of instructor.
Description: Special topics for elementary and secondary science teachers to improve their subject matter competence. Content varies, depending on the needs of specific groups of teachers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5263 Particle Physics
Prerequisites: PHYS 5613 or consent of instructor.
Description: Phenomenology of elementary particles: quark model, electromagnetic, weak, and strong interactions of quarks, leptons, and gauge bosons, Feynman diagram techniques, parton model, gauge symmetries, spontaneous symmetry breaking, Standard model, experimental tests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5303 Physical Optics
Prerequisites: PHYS 3213 or consent of instructor.
Description: Multiple beam interference, diffractions, imaging, near field optical probes of matter, surface plasmons, light scattering from random media, optical coherence tomography - biomedical applications, negative materials, perfect lenses and super resolution. Same course as ECEN 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5313 Electromagnetic Theory
Prerequisites: PHYS 5453.
Description: Electric and magnetic fields in free space and in matter. Boundary value problems, Green's functions, stress tensors, multipole expansions, thermodynamics; electromagnetic waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5350 Special Problems
Prerequisites: Graduate standing in physics.
Description: Special problems of experimental or theoretical nature. Largely individual work with written report required. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5413 Classical Mechanics
Prerequisites: PHYS 4423 or consent of instructor.
Description: Generalized coordinates and advanced dynamics; coupled systems, wave motion; theory of elasticity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5453 Mathematical Methods for Physicists
Prerequisites: PHYS 3513.
Description: Introduction to mathematical techniques used in analyzing problems in physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5503 Frontiers of Quantum Information Science
Description: Quantum information science envelops a broad spectrum of fields including physics, computer science, mathematics, and electrical engineering. This course will explain important milestones achieved in quantum information science and discuss frontier research on building a real-world quantum computer in suitable physical systems, such as superconducting qubits, topological qubits, trapped ions, neutral atoms, and nitrogen vacancy centers. No credit for students with credit in PHYS 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5523 Radiation Detection and Measurement
Prerequisites: PHYS 3713 and PHYS 4213.
Description: Overview of radiation detection and measurement. Instrumentation, statistics of radiation measurements, review of atomic and nuclear physics, review of radiation interaction with matter, nuclear electronics, gas-filled and scintillation detectors, semiconductor detectors, radiation counting and spectroscopy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5533 Dosimetry and Radiation Protection
Prerequisites: PHYS 4663 and PHYS 5523 or consent of instructor.
Description: Radiation dosimetry quantities, effects of ionizing radiation on the human body, basic radiation protection concepts, x-ray and y-ray interaction and attenuation with matter, charged particle and neutron interaction with matter, charged particle equilibria, Bragg-Gray Cavity theory, quantifying dose from radionuclide sources, survey of dosimetric instrumentation, dosimetry with ionization chambers, integrating dosimeters and personal dosimetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in (or equivalent) or MICR 3033 (or equivalent) or consent of instructor.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer diagnosis, cancer treatment, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers, and to cancer patients or relatives. Same course as MICR 5553. May not be used for degree credit with PHYS 3553 or MICR 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Physics

PHYS 5563 Radioactivity and Nuclear Physics Laboratory
Prerequisites: PHYS 4663 and PHYS 5523 or consent of instructor.
Description: The primary objective of this course is to provide students with hands-on experience in a range of experimental techniques and with a variety of instrumentation routinely used in radiation detection and dosimetry, nuclear and particle physics, and in radiotherapy and medical imaging. The course content can be thought of as being of two types: 1) general experimental methods in physics and 2) methods of radiation detection and measurement.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Physics

PHYS 5573 Radiation Biophysics
Prerequisites: PHYS 5533 or consent of instructor.
Description: Introduction to radiation biophysics, structure of DNA and its relationship to carcinogenesis, stochastic nature or radiation interaction with matter, radiation chemistry, cell survival curves, radiation damage models, DNA damage response.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5593 Physics of Radiation Therapy
Prerequisites: PHYS 5533 or consent of instructor.
Description: Overview of radiation therapy, dosimetry in radiation therapy, megavoltage x-ray and electron therapy, manual treatment planning, computer-based treatment planning, brachytherapy, proton therapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5613 Quantum Mechanics I
Prerequisites: PHYS 5453.
Description: Postulates of quantum mechanics. Operators, commutation relations, eigenfunctions. Schroedinger, Heisenberg and interaction formalisms, angular momentum and central field problems; nondegenerate perturbation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5663 Solid State Physics I
Prerequisites: PHYS 4513.
Description: Crystal structure, cohesive energy of ionic crystals and metals, specific heats, free electron theory of metals, band theory, Brillouin zones, insulators and alloys; magnetic properties, optical properties and thermal and electrical conductivity of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5713 Solid State Physics II
Prerequisites: PHYS 5663 or equivalent.
Description: Symmetry, dielectric properties, ferroelectrics, magnetic properties, mechanical properties, and defects of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5813 General Relativity
Prerequisites: PHYS 5453 or consent of instructor.
Description: Theory and applications of general relativity: the principle of equivalence, general coordinate invariance, tensors, affine connections, Einstein's field equations, classic tests, application to stellar dynamics, black holes, and cosmology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5960 Problems in Chemical Physics
Prerequisites: Consent of instructor.
Description: Intermolecular forces, interaction of radiation with matter in bulk form, dielectric properties of matter, polymer physics and quantum theory of biopolymers. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6000 Doctoral Dissertation Research
Prerequisites: Admission to candidacy and permission of major professor.
Description: Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6010 Advanced Graduate Seminar
Prerequisites: Consent of instructor.
Description: Special topics of an advanced nature in physics. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6113 Advanced Theory of Solids
Prerequisites: PHYS 5663.
Description: Many-body techniques, transport processes, band theoretical techniques, superconductivity, dynamics of electrons in a magnetic field, and alloys.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6213 Group Theory for Physics
Prerequisites: PHYS 5453.
Description: Group theory and imperfections in crystals. Dislocation theory and color centers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6243 Semiconductors I
Prerequisites: PHYS 5113, PHYS 5613, PHYS 5663.
Description: The first part of a survey of the physics of semi-conductors. Bonding and structure, crystal growth, epitaxial growth, band theory, phonons, photons, defects, intrinsic and extrinsic statistics, trapping and recombination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6260 Special Topics in High Energy Physics
Prerequisites: PHYS 5263 or consent of instructor.
Description: Advanced topics of current interest in high-energy physics: collider physics, supersymmetry, unification, flavor physics, string phenomenology, extra dimensions. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6313 Quantum Mechanics II
Prerequisites: PHYS 5613.
Description: Scattering theory, many-particle quantum mechanics and application to atomic and molecular systems; degenerate and time-dependent perturbation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6323 Quantum Field Theory
Prerequisites: PHYS 6313 or consent of instructor.
Description: Relativistic Quantum Mechanics: Klein-Gordon field, path integral formulation of Quantum Mechanics, Feynman diagrams, Quantum Electrodynamics, relativistic scattering radiative corrections, renormalization and critical exponents, non-Abelian gauge theories, spontaneous symmetry breaking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6343 Semiconductors II
Prerequisites: PHYS 6243.
Description: The second part of the semiconductors sequence. Transport phenomena, junctions, devices, heterostructures, and optical properties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6413 Nonlinear Optics
Prerequisites: PHYS 5163, PHYS 5313, and PHYS 5613.
Description: The response of matter at high radiation powers; nonlinear susceptibilities. Wave propagation in nonlinear medium; three wave and four wave interactions; saturated absorption, optical switching and limiting; two photon and stimulated Raman processes; Self focusing; solitons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6423 Quantum Optics
Prerequisites: PHYS 5163, PHYS 5613 or consent of instructor.
Description: Quantization of Electromagnetic Fields, coherence, quantum entanglement, parametric down conversion, two photon interferometry, Bell's inequalities, quantum teleportation and cryptography, cavity QED.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6513 Advanced Topics in Solid State Physics
Prerequisites: PHYS 5663 or equivalent.
Description: Interaction of radiation and matter, neutron scattering, phase transitions, magnetic resonance and cooperative phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6613 Advanced Nuclear and Particle Physics
Prerequisites: PHYS 5263, PHYS 6313; or consent of instructor.
Description: Renormalization of quantum field theories, spontaneous symmetry breaking, Standard model, flavor physics, grand unification, super-symmetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6713 Advanced Electromagnetic Radiation
Prerequisites: Consent of instructor.
Description: Radiation theory, wave guides, scattering and dispersion relations; relativity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3213 or ECEN 3813.
Description: Advanced optics including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Ultrashort laser pulses. Same course as CHEM 6803 & ECEN 6803. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6810 Photonics II: THz Photonics and THz-TDS
Prerequisites: PHYS 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultrashort laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as CHEM 6810 & ECEN 6810. Previously offered as PHYS 6811. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6820 Photonics II: Spectroscopy II
Prerequisites: PHYS 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as CHEM 6820 & ECEN 6820. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6830 Photonics II: Spectroscopy III
Prerequisites: PHYS 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques including subnanosecond detectors, picosecond streak cameras, and ultrafast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as CHEM 6830 & ECEN 6830. Previously offered as PHYS 6831. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6840 Photonics III: Microscopy I
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and noncontact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as CHEM 6840 & ECEN 6840. Previously offered as PHYS 6841. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6850 Photonics III: Microscopy II
Prerequisites: PHYS 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning, tunneling microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as CHEM 6850 & ECEN 6850. Previously offered as PHYS 6851. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding and compression. Same course as CHEM 6860 & ECEN 6860. Previously offered as PHYS 6861. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6870 Photonics IV: Synthesis and Devices I
Prerequisites: PHYS 6803 and PHYS 6840.
Description: Preparation of functional nanostructures and related optical and electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as CHEM 6870 & ECEN 6870. Previously offered as PHYS 6871. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: PHYS 6803.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence, and electro-optics sampling. Same course as CHEM 6880 & ECEN 6880. Previously offered as PHYS 6881. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: PHYS 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 cleanrooms. Cleanroom operation including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V Hall, and optical spectral measurement systems. Same course as CHEM 6890 & ECEN 6890. Previously offered as PHYS 6891. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

Plant Biology (PBIO)

PBIO 1052 How Plants Shaped Our World (LN)
Description: Experience the connections between plants and everything in our world - from food and clothing to history and art. Learn why the first physicians were botanists. See how the search for black pepper led to the discovery of a new world and to masterpieces by Dutch painters. Discover how plants work by growing and experimenting with them.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PBIO 1404 Plant Biology (LN)
Description: Basic concepts in the biology of plants from the perspective of structure and function, ecology and evolution, and diversity. Students gain experience with the process of science by proposing hypotheses, designing and conducting experiments and interpreting data. Previously offered as BOT 1404, BIOL 1404, BIOL 1403, and BISC 1403.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PBIO 2110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 2200 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Undergraduate research problems in plant biology. Graded on a pass/fail basis. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 2403 Introduction to Plant Molecular Biology
Prerequisites: CHEM 1314 with a "C" or better; and PBIO 1404 or (BIOL 1113 and BIOL 1111) or BIOL 1114
Description: Concepts, principles, and themes in plant molecular biology, including structures and functions of biomolecules, representative molecular reactions, and regulations of such reactions in everyday plant life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 2890 Honors Experience in Plant Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL or PBIO course.
Description: A supplemental Honors experience in Plant Biology to partner concurrently with designated upper-division BIOL or PBIO course(s). The course adds a different intellectual dimension to the designated course. Same course as PBIO 3890. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 3024 Plant Diversity
Prerequisites: BOT 1404 or equivalent.
Description: Forms and life histories of selected plants with emphasis on some of the less familiar forms. The diversity of plant forms as well as basic similarities in life histories; importance of each form to humans and their environment. Previously offered as BOT 3024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 3114 Plant Taxonomy
Prerequisites: PBIO 1404 or equivalent.
Description: Survey of vascular plant families in a phylogenetic framework, and the morphological characters that define them. Principles and practice of plant classification theory and methods. Lab focuses on the identification of species that comprise the Oklahoma flora. Previously offered as BOT 3114.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3253 Environment and Society (N)
Prerequisites: At least one college level science course strongly recommended.
Description: The environmental impacts of human activities and population growth on the natural world, and possible solutions. Previously offered as BOT 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3263 Plants and People (N)
Description: Study of how plant use has changed the course of world history. This includes the uses of plants and plant products for food and beverages, shelter, fiber, and medicinal and pharmaceutical purposes. Previously offered as BOT 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3273 Medical Botany (N)
Description: Study of plants as a source of medicines, psychoactive compounds and poisons. These topics will be explored in the context of modern western medicine as well as traditional health systems and complementary alternative medicine. Previously offered as BOT 3273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3403 Hopeful Monsters: Laboratory Analysis of Plant Mutants
Prerequisites: PBIO 1404 or BIOL 1113.
Description: The course will focus on the analysis of selected mutants of the model plant Arabidopsis thaliana. The mutations affect different parts of the plant, including altered cell types, organ identity changes, malformed tissues and organs, unusual organ or seed sizes, and altered fertility. There are seven modules, each consisting of directed and independent analyses of mutations. Light microscopy will be the primary method for the analysis of the mutations.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3553 Fungi: Myths and More
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: This course explores fungal biology and its roles in the environment and impacts on the health and nutrition of plants, animals and humans. Topics include the ethnomycological and industrial uses of fungi in foods, fermentations, medicines, and intoxicants, and the colorful folklore and myths associated with these diverse, enigmatic organisms. Laboratory instruction includes microscopy, microbiological methods, mushroom cultivation, and identification of microfungi and wild mushrooms. Same course as PLP 3553. Previously offered as BOT 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3890 Advanced Honors Experience in Plant Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL or PBIO course.
Description: A supplemental Honors experience in Plant Biology to partner concurrently with designated upper-division BIOL or PBIO course(s). The course adds a different intellectual dimension to the designated course. Same course as PBIO 2890. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 4005 Field Botany
Prerequisites: PBIO 1404 or equivalent.
Description: Botanical field techniques, the vegetation of North America, and the flora of Oklahoma. Terminology of description, use of taxonomic keys, techniques of specimen preservation, field recognition of plant taxa and communities and controlling ecological factors, economic and wildlife significance of dominant taxa, principles of classification and nomenclature. Three weekend field trips required. May not be used for degree credit with PBIO 5003. Previously offered as BOT 3005.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4013 Biological Microtechnique
Prerequisites: PBIO 1404 or BIOL 1604.
Description: Theories, principles, and methods related to the usage of the light microscope and to the preparation of biological materials for light microscopic examination. May not be used for degree credit with PBIO 5013. Previously offered as BOT 3013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4233 Plant Anatomy
Prerequisites: BOT 1404 or equivalent.
Description: Structures of cells, tissues and organs of plants and the developmental, phylogenetic, and functional contexts of the structures. May not be used for degree credit with PBIO 5233. Previously offered as BOT 3233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4400 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Undergraduate research problems in plant biology. Previously offered as BOT 4400. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4423 Plant Mineral Nutrition
Prerequisites: PBIO 4463 or concurrent enrollment.
Description: Uptake, translocation, metabolism, and biochemical function of mineral nutrients in higher plants. May not be used for degree credit with PBIO 5423. Previously offered as BOT 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 4462 Plant Physiology Laboratory
Prerequisites: PBIO 4463 or PBIO 5463 or concurrent enrollment.
Description: Skills in techniques for working with plants, experiments involving nutrition, respiration, photosynthesis, water relations, translocation, hormones, growth and development. Previously offered as BOT 3460 and BOT 3462.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Biology

PBIO 4463 Plant Physiology
Prerequisites: BOT 1404 or equivalent.
Description: Plant subcellular structure, water relations, water absorption and ascent of sap, translocation, gaseous exchange, nutrition, enzymes, respiration, photosynthesis, growth, development, reproduction, tropisms, hormones, dormancy and seed germination. May not be used for degree credit with PBIO 5463. Previously offered as BOT 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and (BOT 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor).
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, microcontrollers, spectrophotometers, centrifuges, chromatography, thermacylers, and DNA sequencers. Same course as BIOL 4524, MICR 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4553 Molecular Phylogenectic Analysis
Prerequisites: Undergraduate genetics strongly recommended.
Description: Covers the use of molecular sequence data to construct evolutionary trees. It integrates theory and computer applications to answer questions involving species relationships, gene evolution, molecular evolution and morphological change, co-evolution, and biogeographic relationships. May not be used for degree credit with PBIO 5553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4654 Plant Secondary Metabolism
Prerequisites: PBIO 1404.
Description: This course describes the biochemical pathways and functions of plant secondary metabolites, and how they have been used for medical, pharmaceutical, and agricultural research and industry. Same course as PBIO 5654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4800 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A research project under the direction of a faculty member resulting in a written report to be judged by a second faculty member as well. An oral presentation made at a departmental seminar. Required for graduation with departmental honors in plant biology. Previously offered as BOT 4993. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 4910 Internship in Plant Biology
Prerequisites: Specified hours of documented plant biology work experience.
Description: Supervised experience in an approved work situation related to future career in the plant biology field. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4990 Independent Study in Plant Biology
Prerequisites: Consent of instructor.
Description: Independent study under the supervision of a faculty member. This will include readings and discussion on a selected topic agreed upon between the student and instructor. Previously offered as BOT 4990. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 5000 Master's Thesis
Description: Thesis work for the MS degree. Previously offered as BOT 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5003 Field Botany
Prerequisites: PBIO 1404 or equivalent.
Description: Botanical field techniques, the vegetation of North America, and the flora of Oklahoma. Terminology of description, use of taxonomic keys, techniques of specimen preservation, field recognition of plant taxa and communities and controlling ecological factors, economic and wildlife significance of dominant taxa, principles of classification and nomenclature. Three weekend field trips required. May not be used for degree credit with PBIO 4005.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5013 Biological Microtechnique
Prerequisites: PBIO 1404 or BIOL 1604.
Description: Theories, principles, and methods related to the usage of the light microscope and to the preparation of biological materials for light microscopic examination. May not be used for degree credit with PBIO 4013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5104 Mycology
Prerequisites: Graduate standing.
Description: A systematic study of the fungi, with emphasis on taxonomy, comparative morphology, and fungal biology. Same course as PLP 5104. Previously offered as BOT 5104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Previously offered as BOT 5110. Offered for variable credit, 1-5 credit hours, maximum of 24 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5210 Research in Plant Biology
Prerequisites: Consent of instructor.
Description: Independent research in any area of plant biology. Previously offered as BOT 5210. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5233 Plant Anatomy
Prerequisites: PBIO 1404.
Description: Structures of cells, tissues and organs of plants and the developmental, phylogenetic, and functional contexts of the structures. May not be used for degree credit with PBIO 4233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5423 Plant Mineral Nutrition
Prerequisites: BOT 4463 or concurrent enrollment.
Description: Uptake, translocation, metabolism, and biochemical function of mineral nutrients in higher plants. May not be used for degree credit with PBIO 4423. Previously offered as BOT 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5463 Plant Physiology
Prerequisites: PBIO 1404 or equivalent.
Description: Plant subcellular structure, water relations, water absorption and ascent of sap, translocation, gaseous exchange, nutrition, enzymes, respiration, photosynthesis, growth, development, reproduction, tropisms, hormones, dormancy and seed germination. Previously offered as BOT 3463. May not be used for degree credit with PBIO 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5524 Biological Instrumentation
Prerequisites: CHEM 1515 or equivalent and (BOT 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor).
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. Same course as BIOL 5524 and MICR 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5541 Phylogenomics
Description: Current topics in the theory and application of genome and transcriptome sequencing to phylogenetics, prediction of gene function, and evolution of genes. Previously offered as BOT 5541.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5553 Molecular Phylogenectic Analysis
Prerequisites: Undergraduate genetics strongly recommended.
Description: Covers the use of molecular sequence data to construct evolutionary trees. It integrates theory and computer applications to answer questions involving species relationships, gene evolution, molecular evolution and morphological change, co-evolution, and biogeographic relationships. May not be used for degree credit with PBIO 4553. Previously offered as BOT 5553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5563 Plant Ecological Genetics
Prerequisites: Two of the following courses or their equivalent: BIOL 3023, BIOL 3034, and BIOL 4133.
Description: Basic concepts in plant population and quantitative genetics, focusing on techniques that reveal the genetic structure and the adaptive value of ecologically relevant traits. Previously offered as BOT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5654 Plant Secondary Metabolism
Prerequisites: PBIO 1404.
Description: This course describes the biochemical pathways and functions of plant secondary metabolites, and how they have been used for medical, pharmaceutical, and agricultural research and industry. Same course as PBIO 4654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5813 Plant Developmental Genetics
Prerequisites: BIOL 3023 or equivalent.
Description: Discussion of the genetic and molecular factors that regulate reproductive and vegetative development in flowering plants. Emphasis on recent publications that deal with model genetic systems and plants of economic significance. Previously offered as BOT 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5850 Plant Biology Seminar
Description: Weekly one-hour seminar series of invited and internal speakers. Plant Sciences MS and Plant Sciences (Plant Biology) PhD students are required to present a minimum of two seminars, including one on thesis or dissertation results. Previously offered as BOT 5850. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5910 Internship in Plant Biology
Prerequisites: Specified hours of documented plant biology work experience.
Description: Supervised experience in an approved work situation related to future career in the plant biology field. Graded on a pass/fail basis. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 6000 Doctoral Research
Description: Independent research for the doctoral dissertation. Previously offered as BOT 6000. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

Plant Pathology (PLP)

PLP 3553 Fungi: Myths and More
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent.
Description: Fungal biology covering environmental roles and impacts on the health and nutrition of plants, animals and humans. Ethnomycological and industrial uses of fungi in foods, medicines, and intoxicants, and associated folklore and myths. Microscopy, microbiological methods, mushroom cultivation, and identification of microfungi and wild mushrooms. Same course as BOT 3553 or PBIO 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 4343 Principles of Plant Pathology
Prerequisites: PBIO 1404 or MICR 2123 or HORT 1013 or PLNT 2013.
Description: Introduction to basic principles and concepts of plant pathology, including the nature, cause and control of biotic and environmentally induced plant diseases, with emphasis on principles and methods of disease management. Offered in combination with PLP 5343. No credit for both PLP 4343 and PLP 5343. Previously offered as PLP 3344 and PLP 3343.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 4400 Special Topics
Prerequisites: Consent of instructor.
Description: Special topics in Plant Pathology, Entomology or related fields. Same course as ENTO 4400. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

PLP 4923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalent.
Description: Applications of biotechnology in controlling arthropod pests of plants and animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, their effectiveness and associated problems or concerns resulting from their use. Same course as ENTO 4923 and PLNT 4923. Previously offered as PLP 4922. May not be used for Degree Credit with PLP 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

PLP 5003 Plant Nematology
Prerequisites: PLP 3343 or concurrent enrollment.
Description: General morphology, taxonomy and bionomics of nonparasitic and plant parasitic nematodes. Plant parasitic nematode assay techniques, subfamily identification, symptomology, pathogenicity and control. Previously offered as PLP 5004.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 5613 Host Plant Resistance
Prerequisites: ENTO 3343 and ENTO 2993 or equivalent and a general genetics course; or consent of instructor.
Description: Interactions of plants and the herbivorous insects and pathogenic micro-organisms that attack them. Development and deployment of multiple-pest resistant cultivars in crop management systems. Same course as ENTO 5613.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 5860 Colloquium
Prerequisites: PLP 3343.
Description: Concepts and principles of plant pathology through discussions of pertinent literature. Offered for fixed credit, 2 credits, maximum of 2 credit hours.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

PLP 6303 Soilborne Diseases of Plants
Prerequisites: PLP 3343.
Description: Soilborne diseases, their reception and importance, the pathogens involved, rhizoplane and rhizosphere influences, inoculum potential, specialization of pathogens, suppressive soil effects, and disease management. Lecture and discussion sessions will emphasize in-depth understanding of problems and complexities associated with studies of soilborne pathogens.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

Plant Science (PLNT)

PLNT 1101 Orientation to Plant and Soil Sciences
Description: Introduction to areas of study, professional activities and career opportunities in plant and soil sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 1213 Introduction to Plant and Soil Systems (N)
Description: Introduction to the concepts of plant and soil systems including cropland, rangeland and pastureland. A systems approach to the importance of plant and soil resources to the producer, consumer and citizen; modern management and production practices; maintenance of natural resources. Previously offered as AGRN 1213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

PLNT 2011 Agronomic Problem Solving
Prerequisites: PLNT 1213 or HORT 1013 or PBIO 1404 and MATH 1513 or Instructor Permission.
Description: Practical solutions to common agronomic and soil science issues.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Plant & Soil Sciences

PLNT 2013 Applied Plant Science
Prerequisites: PLNT 1213 or BOT 1404 or FOR 1123 or HORT 1013.
Description: Application of agronomic principles to the management, improvement and use of plants. Structure and growth of crop plants relating to management strategies and adaptation to varying abiotic and biotic factors. Hands-on identification of crops, weeds, and seed quality factors; application of tools and techniques. Previously offered as PLNT 2012 and AGRN 2012.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 2041 Career Development in Plant and Soil Sciences
Prerequisites: Sophomore standing in plant and soil sciences.
Description: Develop professional skills, learn about career development resources, and understand the steps of the application and interview process. Engage industry professionals to learn about experiences and viewpoints regarding the job market. Identify career path, develop action plan to meet job requirements and gain basic understanding of personal financial management. Previously offered as AGRN 2041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 3012 Crops of Oklahoma
Prerequisites: PLNT 1213.
Description: Production, distribution, classification, utilization, and current issues or improvements of major crops in Oklahoma. This course includes, but is not limited to, wheat, soybean, sorghum, corn, peanuts, cotton, sunflowers, and bermuda grass. Previously offered as PLNT 3011.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 3554 Plant Genetics and Biotechnology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Basic principles of heredity. Interrelationship between classical genetics and molecular genetics emphasized. Mendelian genetics, cytogenetics, mutations, gene regulation and genetic engineering. Previously offered as AGRN 3554.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 3790 Seed and Plant Identification
Prerequisites: PLNT 1213.
Description: Identification and classification of agronomically important crop and weed species from seed and from seedling, vegetative, flowering or mature plants. Offered for fixed credit, 1 credit hours, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4013 Fundamentals of Weed Science
Prerequisites: PLNT 1213 or HORT 1013.
Description: Fundamentals of weed biology and ecology aimed at understanding life cycles, growth characteristics, and ecological impacts. Identification of common weeds in South-Central US production systems utilizing live plants, hands-on activities, and field visits. Holistic system approach to understanding weed population dynamics and integrated weed management with special attention to chemical weed management alongside cultural, mechanical, and biological control methods. Introductory concepts in herbicide-resistant weeds. Previously PLNT 3113 & 3211. May not be used for Degree Credit with PLNT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4033 Applied Agricultural Meteorology
Prerequisites: PLNT 1213 and SOIL 2124.
Description: Fundamental meteorology concepts in field-scale setting. Drivers of climate and weather and the assessment of the impacts of climate and weather on agricultural systems. Integration of weather and climate information into the process of formulating sound, data-based decisions related to various agricultural operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4080 Professional Internship
Prerequisites: Consent of instructor.
Description: Internship must be at an approved agribusiness unit or other agency serving agronomic agriculture. Requires a final conference with on campus adviser and a written report. Previously offered as AGRN 4080. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 4113 Advanced Weed Science
Prerequisites: PLNT 4013
Description: Advanced principles focused on herbicide mode and mechanism of action, factors influencing herbicide activity, herbicide formulations, and application techniques. Selection of appropriate herbicides for various weed scenarios, herbicide application, soil-herbicide interaction, and identification of herbicide injury symptomology on various crops and weeds. Activities emphasize sprayer calibration, herbicide application strategies, and close examination of herbicide symptomology in field and greenhouse settings. Previously offered as AGRN 4113. May not be used for Degree Credit with PLNT 5113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 4123 Plant-Environment Interactions
Prerequisites: PBIO 1404.
Description: Environmental impact on plant life cycle; (i.e. germination, flowering and senescence); plant growth responses (e.g. photosynthesis, phototropism, biomass production) to light quality, precipitation, temperature, and population or community changes. Previously offered as AGRN 4123. May not be used for Degree Credit with PLNT 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4133 Temperature Stress Physiology
Prerequisites: CHEM 1215 and BIOL 1114 (or BIOL 1113 and BIOL 1111) or PBIO 1404
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as HORT 4133. Offered in combination with HORT 5133 and PLNT 5133. May not be used for degree credit with HORT 5133 and PLNT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4243 Crop Nutrition
Prerequisites: SOIL 4234 or equivalent and PBIO 4463, or instructor approval
Description: Plant nutrient uptake mechanisms, translocation, and the metabolic and physiological roles of micro- and macronutrients in crop production. Additional focus on how nutrient deficiencies, as well as water, temperature, and pest stresses influence nutrient function and utilization in agronomic crops. May not be used for Degree Credit with PLNT 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4353 Plant Breeding
Prerequisites: PLNT 3554 or equivalent.
Description: Basic principles dealing with the improvement of plants through application of genetic principles. Previously offered as AGRN 4353. May not be used for Degree Credit with PLNT 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4443 Cropping Systems
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4453 Plant Molecular Breeding
Prerequisites: ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Use and application of genomic knowledge and molecular technology to improve agriculturally important plants. Major topics include applications of genome sequence, genetic mapping, and gene cloning structural and comparative genomics and their application in molecular breeding of agronomic crops. May not be used for degree credit with PLNT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4470 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Problems in plant science selected from topics in range and turf, plant breeding and genetics, crop management and physiology, and weed control. Previously offered as AGRN 4470. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 4543 Cropping Systems
Prerequisites: PLNT 1213 or HORT 1013 or BOT 1404; PLNT 2013.
Description: Principles of developing and managing cropping systems in the Great Plains for the efficient use and conservation of soil and water resources while promoting yield, managing soil fertility, and effectively controlling pests. May not be used for degree credit with PLNT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4571 Professional Preparation in Plant and Soil Sciences
Prerequisites: Senior standing in plant and soil sciences.
Description: Preparation for professional certification exams and career opportunities in plant and soil sciences. Same course as SOIL 4571. Previously offered as AGRN 4571.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4573 Bioenergy Feedstock Production
Prerequisites: PLNT 1213.
Description: Understand production and management practices for potential bioenergy feedstocks. Distinguish feedstock sources and end products. Identify physiological mechanisms to improve yield and quality under current and future climates. Use simulation and GIS tools to project biomass and ethanol yields. May not be used for Degree Credit with PLNT 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4613 Forage and Grazinglands Resource Management
Prerequisites: PLNT 1213 or BOT 1404.
Description: Designing forage systems that optimize yield potential, economical livestock production and pasture system development. Previously offered as RLEM 4613, PLNT 3213, and AGRN 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalents.
Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. Same course as ENTO 4923, PLP 4923, and PLNT 4922. May not be used for Degree Credit with PLNT 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4933 Gene Editing and Genetically Modified Crops
Prerequisites: PLNT 3554 or ANSI 3423 or BIOL 3023 or Consent of Instructor.
Description: Principles and techniques in editing and overexpressing genes in transgenic crops with improved agronomic traits. Controversies and consumer concerns over transgenic plants, biotechnology regulations and global status of biotech crops. Laboratory techniques in recombinant DNA cloning, transformation, and tissue culture. May not be used for Degree Credit with PLNT 5933.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 4990 Senior Thesis in Plant and Soil Sciences
Prerequisites: Consent of instructor.
Description: Supervised undergraduate research in topics related to plant and soil sciences. Completion of an approved research project based on a thesis topic in plant or soil science will include submission of a written report and a public defense of the work. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5000 Master's Thesis
Prerequisites: Consent of advisor.
Description: Research planned, conducted and reported in consultation with a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5013 Fundamentals of Weed Science
Prerequisites: PLNT 1213 or HORT 1013.
Description: Fundamentals of weed biology and ecology aimed at understanding life cycles, growth characteristics, and ecological impacts. Identification of common weeds in South-Central US production systems utilizing live plants, hands-on activities, and field visits. Holistic system approach to understanding weed population dynamics and integrated weed management with special attention to chemical weed management alongside cultural, mechanical, and biological control methods. Introductory concepts in herbicide-resistant weeds. May not be used for Degree Credit with PLNT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Discussions of research philosophy, methods, interpretation and presentations. Profession development and contributions to the scientific community. Same course as SOIL 5020. Offered for fixed credit, 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5110 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Supervised study of special problems and topics not covered in other graduate courses. Previously offered as AGRN 5110. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5113 Advanced Weed Science
Description: Advanced principles focused on herbicide mode and mechanism of action, factors influencing herbicide activity, herbicide formulations, and application techniques. Selection of appropriate herbicides for various weed scenarios, herbicide application, soil-herbicide interaction, and identification of herbicide injury symptomology on various crops and weeds. Activities emphasize sprayer calibration, herbicide application strategies, and close examination of herbicide symptomology in field and greenhouse settings. Previously offered as AGRN 4113. May not be used for Degree Credit with PLNT 4113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 5123 Plant-Environment Interactions
Prerequisites: PBIO 1404.
Description: Environmental impact on plant life cycle; (i.e. germination, flowering and senescence); plant growth responses (e.g. photosynthesis, phototropism, biomass production) to light quality, precipitation, temperature, and population or community changes. May not be used for degree credit with PLNT 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5133 Temperature Stress Physiology
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as HORT 5133. Offered in combination with HORT 4133 and PLNT 4133. No credit with degree credit in HORT 4133 and PLNT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5230 Research
Prerequisites: Consent of a faculty member supervising the research.
Description: Supervised independent research on selected topics. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5243 Crop Nutrition
Prerequisites: SOIL 4234 or SOIL 5234 or equivalent course or instructor approval
Description: Plant nutrient uptake mechanisms, translocation, and the metabolic and physiological roles of micro- and macronutrients in crop production. Additional focus on how nutrient deficiencies, as well as water, temperature, and pest stresses influence nutrient function and utilization in agronomic crops. May not be used for Degree Credit with PLNT 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5293 Plant Response to Water Stress
Prerequisites: BIOC 3653, BOT 3463.
Description: Physiological ramifications of water deficit stress on cells, tissues, plants and canopies. Discussion of the soil/plant/atmosphere continuum, and avoidance and tolerance mechanisms leading to drought resistance. Photosynthesis, transpiration, and water-use efficiency and their relationship to biomass accumulation and crop yield. Previously offered as AGRN 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5313 Simulation Models in Research, Management and Policy
Prerequisites: PLNT 1213.
Description: Use crop simulation models (CSM) and decision support systems to address challenges associated with food, fuel, feed and fiber production. Utilize CMS as research, management, and policy tools. Evaluate CSM as surrogates to field studies and to design experiments to fill in knowledge gaps.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5353 Plant Breeding
Prerequisites: PLNT 3554 or equivalent.
Description: Basic principles dealing with the improvement of plants through application of genetic principles. May not be used for degree credit with PLNT 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5403 Physiological Action of Herbicides
Prerequisites: BOT 3463.
Description: The mode of action, uptake and translocation, and metabolism of herbicides in crops and weeds. Previously offered as AGRN 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5412 Plant Breeding Methods
Prerequisites: PLNT 3554 or PLNT 4353 or consent of instructor.
Description: Development and application of genetic principles to breeding methodology of self- and cross-pollinated crops; emphasis on selection methods pertinent to plant improvement; methods of new cultivar development, release, and commercialization. Previously offered as PLNT 5414.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5413 Data Science for Agriculture and Natural Resources
Description: Data science principles and skills in the context of agricultural and natural resources research. Topics include data capture, quality control, data manipulation, visualization, reproducible analysis, and communication of results. Emphasis on workflows and analytical techniques tailored for agricultural and natural resource management research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5433 Biotechnology in Plant Improvement
Prerequisites: PLNT 3554, PLNT 4353, and BIOL 3014 or consent of instructor.
Description: Use of emerging technologies in cell biology and molecular genetics to study and manipulate plants. Emphasis on genetic systems which influence productivity and end-product utilization. The integration of biotechnology into plant breeding programs and issues concerning the release of genetically engineered organisms into the environment. Previously offered as AGRN 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5453 Plant Molecular Breeding
Prerequisites: ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Use and application of genomic knowledge and molecular technology to improve agriculturally important plants. Major topics include applications of genome sequence, genetic mapping, and gene cloning structural and comparative genomics and their application in molecular breeding of agronomic crops. May not be used for degree credit with PLNT 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5543 Cropping Systems
Description: Principles of developing and managing cropping systems in the Great Plains for the efficient use and conservation of soil and water resources while promoting yield, managing soil fertility, and effectively controlling pests. May not be used for degree credit with PLNT 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5573 Bioenergy Feedstock Production
Prerequisites: PLNT 1213.
Description: Understand production and management practices for potential bioenergy feedstocks. Distinguish feedstock sources and end products. Identify physiological mechanisms to improve yield and quality under current and future climates. Use simulation and GIS tools to project biomass and ethanol yields. May not be used for degree credit with PLNT 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalents.
Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. May not be used for degree credit with PLNT 4923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5933 Gene Editing and Genetically Modified Crops
Prerequisites: PLNT 3554 or ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Principles and techniques in editing and overexpressing genes in transgenic crops with improved agronomic traits. Controversies and consumer concerns over transgenic plants, biotechnology regulations and global status of biotech crops. Laboratory techniques in recombinant DNA cloning, transformation, and tissue culture. May not be used for degree credit with PLNT 4933.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 6000 Doctoral Thesis
Prerequisites: Consent of adviser.
Description: Independent research to be conducted and reported with the supervision of a major professor as partial requirement for the PhD degree. Offered for variable credit, 1-6 credit hours, maximum of 36 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 6410 Topics in Plant Breeding and Genetics
Prerequisites: Consent of instructor.
Description: Selected topics in the statistical and experimental analysis of quantitative traits, evolutionary development of domesticated plants and animals, and techniques used in breeding crop plants. Previously offered as AGRN 6410. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

Political Science (POLS)

POLS 1010 Studies in American Government
Description: Special study in American government to allow transfer students to fulfill general education requirements as established by Regents' policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 1113 American Government
Description: Organization, processes and functions of the national government of the United States. Satisfies, with HIST 1103 or 1483 or 1493, the State Regents requirement of six credit hours of American history and American government before graduation. Previously offered as POLS 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2000 Topics in American Politics (S)
Description: Introductory examination of timely topics and issues in American Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2010 Topics in International Relations (G)
Description: Introductory examination of timely topics and issues in International Relations. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 2013 Introduction to International Relations (S)
Description: Analysis and explanation of the political, economic, and social relationships that exist between countries. Broad topics include major actors in international relations, the role of power on the global stage, interstate and civil conflict, cooperation, and economic security. The assumptions of major international relations theories, such as realism and liberalism, are explained. Previously offered as POLS 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2020 Topics in Public Law (S)
Description: Introductory examination of timely topics and issues in Public Law. Maybe repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2023 The Individual And The Law
Description: Introduction to the U.S. Constitution, legal reasoning, legal research techniques, and topical issues of U.S. public law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2030 Topics in Public Policy & Administration
Description: Introductory examination of timely topics and issues in Public Policy and Administration. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2033 Introduction to Public Administration
Description: Public administration, including administration, administrative organization, decision-making, governmental public relations and administrative responsibilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2110 Topics in Comparative Politics (G)
Description: Introductory examination of timely topics and issues in Comparative Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 2113 Introduction to Comparative Politics (GS)
Description: A study of the domestic politics, society, and economies in countries around the world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 2213 Fundamentals of Political Science
Description: This course provides an overview of Political Science as a field of study, and it provides students with basic research literacy and other skills essential to success as a Political Science major.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2313 Social Justice Politics (D)
Description: This course examines race, ethnicity, class, gender, sexuality, religion, age, ability, and in a number of realms, particularly the political. Specific social justice issues discussed include immigration reform, religious accommodations in the workplace, the gender gap In wages and political office holding, income and wealth inequality, racial and ethnic discrimination, same-sex marriage, ageism and disability access.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 2423 Voting and Elections
Description: A study of the major issues, voting patterns, institutional factors, and political factors shaping elections with a focus on current U.S. elections. May include a discussion of how U.S. elections compare to other countries. Previously offered as POLS 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2523 Black Political Thought
Description: Black Political Thought develops a set of critical tools to help explain the distinctiveness of Black Politics. It pursues a deep understanding of the Black intellectual traditions that inform an enhanced understanding of Political Theory's core concepts. Using the lens of the African diaspora it investigates the abiding concerns of Political Theory, i.e., the meanings of justice, freedom, and equality; the nature of power, obligation, and "the good life." Same course as AFAM 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 2890 Honors Experience in Political Science
Prerequisites: Honors Program participation and concurrent enrollment in a designated Political Science course.
Description: A supplemental Honors experience in Political Science to partner concurrently with designated Political Science course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Honors Credit

POLS 2993 Honors Tutorial in Political Science
Prerequisites: POLS 1113. Honors standing, and invitation by head of department.
Description: For the special needs of the sophomore-level honors student majoring in political science who wishes to study individualized topics at an accelerated pace in a tutorial format. After mastering basic principles in an area of interest the student will conduct independent research under close faculty supervision and prepare a report or reports.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3003 The Soviet Union: History, Society and Culture(GS)
Description: A comprehensive view of the Soviet Union, stressing those issues in the political, economic, technological, geographical and cultural spheres which are most relevant to the current situation. Accessible to beginning undergraduates. Same course as HIST 3003 & RUSS 3003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 3033 International Law
Description: International laws between countries arise from customary law, treaties, and other international agreements. This course examines international law surrounding international diplomacy, conflict, organizations, and the international political reasons for the creation, compliance, and violation of such laws.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3053 Introduction to Central Asia Studies (IS)
Description: A comprehensive view of newly-emerged Central Asian states examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as reflected in their thoughts, religion, literature, and architecture, in the past, and the strategic importance of their natural wealth for the present and future. Same course as GEOG 3053, GLST 3053, HIST 3053 & RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3090 Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written paper(s). Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3100 Political Science Internship
Prerequisites: Consent of department.
Description: Internship education experience in a specific subfield in the discipline of political science. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3101 Oklahoma Intercollegiate Legislature
Description: OSU Oklahoma Intercollegiate Legislature provides students with hands on experience in the legislative process. It is a mock legislature with the intended goal of passing bills and learning parliamentary procedure. Students learn how to research and draft legislation, build coalitions, and debate the merits of their bills. Participation in O.I.L. gives students a behind the scenes look at how state government conducts business. The result is academic learning in a real world setting. This course is a pass/fail grade. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3103 Introduction to Political Inquiry
Prerequisites: Sophomore, Junior and Senior standing.
Description: The scope and methods of political science. Scientific methodology applied to political phenomena, hypothesis, measurement, literature review, research designs, introductory data analysis and writing in political science. Previously offered as POLS 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3123 Russian & Eurasian Politics (G)
Description: An overview of the major political, social, and economic challenges facing Russia and its neighbors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3143 European Politics (G)
Description: An overview of the major political, social, and economic challenges facing European countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3163 African Politics (G)
Description: An overview of the major political, social, and economic challenges facing African countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3193 Latin American Politics (GS)
Description: An overview of the major political, social, and economic challenges facing Latin American countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 3223 Asian Politics
Description: An overview of the major political, social, and economic challenges facing Asian countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3313 Middle Eastern Politics
Description: An overview of the major political, social, and economic challenges facing Middle Eastern countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3353 Political Parties
Description: An examination of political parties, including the role of parties in elections and government, how parties have changed through time, why there are only two major parties in the United States, and what factors influence how parties behave.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3443 Pol Campaigns And Candidacy
Description: Planning, fundraising, targeting, public opinion, support operations, voter contact, the mass media and candidate activities. Previously offered as POLS 3414.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3453 U.S. Congress
Description: The power and organization of legislatures, as well as the selection and behavior of legislators. Special attention given to the U.S. Congress.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3483 The American Presidency
Description: The politics of presidential selection, removal and succession; formal and informal powers of the president; relations with Congress, the national judiciary and national executive branch; proposed reforms and the vice-presidency.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3493 Public Policy
Prerequisites: Any one of POLS 1013, POLS 2033, ECON 1113.
Description: Identification of policy options open to policy makers and examination of measurements and rationales underlying governmental programs. May not be used for degree credit with POLS 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3513 Public Opinion and Polling
Description: The nature of public opinion. Public opinion polling, the factors influencing opinion formation, and the effects of public opinion on policy and policy makers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3523 Money, Media And Politics
Prerequisites: POLS 1113.
Description: Techniques used by successful candidates for elective office to present their positions to the voting public. Beginning with the basic elements of fundraising exploration of current campaign finance laws, funding techniques and campaign budgeting. Message development, media production and ad placement. Preparation of a fundraising strategy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3533 Lobbying and the Power of Organized Interests
Prerequisites: POLS 1113.
Description: An exploration of how political scientists understand organized interests and their lobbying and grassroots activities. Topics may include the origin of interests, collective action problems, lobbying techniques, and grassroots activism, campaign finance, influence of groups in government, and who is powerful and why.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3613 State and Local Government
Description: Political processes, government and administration of American states, cities and counties; special emphasis on Oklahoma.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3663 Introduction to Political Thought
Description: The teachings of the three lasting traditions of Western political thought: classical, Christian and modern.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3683 Politics in Contemporary Film
Prerequisites: POLS 1113.
Description: The effect of politics on contemporary film. Exploration of the often subtle political imagery and symbolism contained in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3893 Terrorism & Counterterrorism
Description: This course examines the definition, causes, and consequences of terrorist activity. Special emphasis will also be given to key domestic and international counterterrorism responses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3953 Minorities in the American Political System (DS)
Prerequisites: POLS 1113.
Description: Examination of mass and elite level behavior of minorities in the contemporary U.S. political system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

POLS 3963 State Courts and the Bar
Description: This course will cover the various constraints that exist within the decision-making outcomes of state courts, as well as the institutional biases found within state run criminal justice systems. It looks at the increasingly partisan nature of state court election cycles and the contemporary status of the legal academy, the Bar, and the economics of law firms. It will be particularly useful to those students thinking about continuing their education with the pursuit of a law degree.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3973 Race, Politics and Sports (D)
Prerequisites: POLS 1113.
Description: Historical, as well as the contemporary relationship, between race, politics and sports in the U.S. political system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 3983 Courts and Judicial Process (S)
Description: The American judiciary and legal process from a political perspective with particular emphasis on judicial organization and powers, recruitment, fact-finding, decision-making, impact of decisions, the legal profession and relations among courts. Oklahoma judicial organization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 3993 Legal Research And Analysis
Prerequisites: POLS 2023 or HONR 2013.
Description: Introduction to legal research methods, including state and federal reported cases, digests, annotated codes, state and federal administrative regulations, and computerized legal research, as well as an introduction to legal reasoning and analysis and the preparation of case briefs and memoranda.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4000 Advanced Topics in American Politics
Prerequisites: POLS 1113 or consent of instructor.
Description: In-depth examination of critical topics and issues in American politics, including American political behavior and political leadership. May be repeated with different topics. May not be used for degree credit with POLS 5710. Offered for variable credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4010 Advanced Topics in International Relations
Prerequisites: POLS 2013 or POLS 2113 or consent of instructor.
Description: In-depth examination of critical topics and issues in International Relations. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 5210.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4013 American Foreign Policy
Description: An introduction to the history of America's foreign policy (with an emphasis on foreign relations since WWII), the dominant themes and goals of American foreign policy throughout time, contemporary issues that face the United States, and how foreign policy is made and enforced. May not be used for degree credit with POLS 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4020 Advanced Topics in Comparative Politics
Prerequisites: POLS 2013 or POLS 2113 or consent of instructor.
Description: In-depth examination of critical topics and issues in Comparative Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 5410.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4023 Intelligence and Security Analysis
Description: An introduction to the world of intelligence analysis. Students will gain a basic understanding of the different types of intelligence, the way intelligence is analyzed, and the ways that analysts present their findings to the consumer. Students will learn critical thinking techniques used by professionals and apply them to hypothetical and real-world problems. May not be used for degree credit with POLS 5223
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4033 Civil Wars (G)
Prerequisites: POLS 1113.
Description: This course focuses on civil wars, insurgencies, and other conflicts that occur within the borders of countries. The course intends to present current theories and understanding of civil wars that can inform the examination and explanation of such conflicts, including why conflicts start, how conflicts end, the goals and strategies of rebel groups and governments, and the long-term effects of conflict are critical to forming domestic and international policies that provide peaceful alternatives to violence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 4043 Global Political Economy
Description: An introduction to the major players, challenges, and theories shaping the modern global economy. Topics include economic development, globalization, trade, and foreign investment. May not be used for degree credit with INTL 5043. Previously offered as POLS 3043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4053 War And World Politics (G)
Description: Students are introduced to the scientific study of war. Topics include why countries engage in conflict, the conduct of war, the ways in which wars end, and how peace is maintained between former rivals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 4100 Problems of Government, Politics and Public Policy
Description: Special problem areas of government, politics and public policy concentrating on topics not covered in other departmental course offerings. May not be used for degree credit with POLS 5100. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 4113 International Organization
Description: The last one hundred years have seen the rise of international organizations. This class explores the reasons for this proliferation, as well as the impact of organizations such as the United Nations, North Atlantic Treaty Organization, etc. for the conduct of international relations. May not be used for degree credit with POLS 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4223 Social Movements
Prerequisites: POLS 1113.
Description: A study of the origins, activities, and impact of political and social movements. Students examine these theories and concepts by learning about several contemporary movements from other countries and the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4333 Improving Democracy (S)
Description: This course encourages students to think critically and creatively about challenges facing political institutions in democratic countries, such as the United States and/or abroad, and the prospects for more robust democracy in the future. Topics may include the foundational principles of democracy, new research on threats to democracy, prominent democratic reform proposals, and evidence of their merits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 4353 Administrative Law
Description: Legal powers, limits, and procedures of administrative agencies with emphasis on federal and state administrative procedure acts. May not be used for degree credit with POLS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4363 Environmental Law And Policy
Description: Statutory law, case law, and administrative practices relating to regulation of the environment including environmental impact statements, pollution, public lands, and preservation law. May not be used for degree credit with POLS 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4403 Urban Politics and Management
Description: Problems of governing and managing American metropolitan areas. May not be used for degree credit with POLS 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4413 Government Budgeting
Description: The politics, planning and administration of government budgets. May not be used for degree credit with POLS 5320.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4453 Public Personnel Administration
Description: Problems, processes, and procedures of public personnel administration. May not be used for degree credit with POLS 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4553 American Political Thought
Description: A survey of the major developments in American political thought from the Colonial period to the present, followed by a topical analysis of important recent theoretical developments in political science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4573 Democratic Theory
Description: Investigates the origins, development, and continuing challenges of theories of democratic government, with particular emphasis on the American political tradition. Topics include citizenship, accountability, voting and elections, federalism, and institutional design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4593 Natural Resources and Environmental Policy
Description: Current issues in the law, politics and administration of energy, land, water, mineral and other natural resources policy with particular emphasis on relations to environmental policies and law. May not be used for degree credit with POLS 5620.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4623 Oklahoma Politics (S)
Prerequisites: POLS 1113.
Description: Introduction to Oklahoma Politics. Topics include the evolution of Oklahoma political institutions; the struggle to shape the Oklahoma political culture with special attention to the role of race and woman suffrage; political issues; the structure of Oklahoma political institutions at the state and local levels; and elections.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 4653 Contemporary Political Thought
Description: An analysis of 19th and 20th century political ideas, with emphasis on the rise and fall of ideologies along side controversies over relativism, positivism, pragmatism, and resurgent religious faiths.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4670 Advanced Topics in Political Theory
Description: In-depth examination of critical topics and issues in classic, modern, or American political theory. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4693 Gender and Politics
Description: Changing role of women in government and politics. Voting behavior, public opinion, women in government, and the women's movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4903 Senior Capstone Seminar
Prerequisites: Political Science major with Junior or Senior standing and completion of POLS 3103 with a grade of "C" or better.
Description: This class is intended to be the culmination of a student's undergraduate study of Political Science, emphasizing skills essential to students' future success. Students will read and discuss advanced readings in the field of political science and complete a significant empirical research project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4963 U.S. Constitution: Civil Rights and Civil Liberties
Prerequisites: POLS 2023 or POLS 3983 recommended.
Description: Development of principles of constitutional law by the Supreme Court concerning individual and group rights, with particular emphasis on equal protection of the laws concepts in matters of race, gender, wealth, citizenship, legislative reapportionment and voting rights, government employment and affirmative action programs. Legal research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4973 U.S. Constitution: Separation of Powers
Prerequisites: POLS 2023 or POLS 3983 recommended.
Description: This course will cover the constitutional law governing the structure of the United States government, including such subjects as the power of the federal government, the separation of powers within the federal government, and the relationship between the federal government and the states (including substantive and due process rights under the Fourteenth Amendment).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4980 Advanced Topics in Public Law
Prerequisites: POLS 2023 and (POLS 3983 or POLS 3993) or consent of instructor.
Description: In-depth examination of critical topics and issues in Public Law. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4990 Independent Study
Description: Application of major relevant theoretical perspectives to selected case studies of political problems and issue areas. Theories and attendant case studies selected by visiting faculty members. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 4993 Political Science Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in political science.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science
General Education and other Course Attributes: Honors Credit

POLS 5000 Thesis
Description: Thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5013 Quantitative Methods
Prerequisites: POLS 5103.
Description: Required of all graduate students. Fundamental methodological issues in the scientific study of politics. Logic of science, principles of research design and computer data manipulation and analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5020 Creative Component
Description: Individually supervised research. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5023 Foundation of Political Science
Description: Overview of the foundational works, theories and approaches that define the discipline of political science and serve as bridges across its subfields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5030 Internship in Public Administration and Government
Description: Individually supervised internships in administrative and governmental career areas. Paper required. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5040 Readings in Politics, Public Policy or Public Administration
Prerequisites: Consent of supervising professor.
Description: Readings in the student's major area of study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5100 Directed Study
Description: Directed study for master's level students. May not be used for degree credit with POLS 4100. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5103 Research Design
Prerequisites: Graduate standing.
Description: Overview of research design, including conceptualization and operationalization, literature review, deductive and inductive theorizing, hypothesis testing, quantitative and qualitative data collection and analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5113 Seminar in Public Program Evaluation
Description: Methodology of evaluation research in public programs. Emphasis will be placed on designing and interpreting evaluative studies rather than the mastery of particular mathematical, statistical or computer skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5133 Politics and Political Economy in the European Union
Description: The institutions and policy-making process of the European Union (EU) and the theoretical traditions in the study of European integration. The institutional form of the EU and the type of European policy that is emerging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5143 Social and Political Perspectives in Europe
Description: Examination of the current and historical social, cultural and political landscapes of European societies. Material related to identity politics, citizenship, democratization and collective memory feature regularly in the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5153 American Foreign Policy
Description: An introduction to the history of America's foreign policy (with an emphasis on foreign relations since WWII), the dominant themes and goals of American foreign policy throughout time, contemporary issues that face the United States, and how foreign policy is made and enforced. May not be used for degree credit with POLS 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5163 International Organization
Description: The last one hundred years have seen the rise of international organizations. This class explores the reasons for this proliferation, as well as the impact of organizations such as the United Nations, North Atlantic Treaty Organization, etc. for the conduct of international relations. May not be used for degree credit with POLS 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5203 ProSeminar in International Relations
Description: A general survey intended to introduce students to major theoretical paradigms, applications, and debates in the field of international relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5210 Topics Seminar in International Relations
Description: In-depth examination of critical topics and issues in International Relations. May be repeated up to 6 hours with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 4010.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5213 Seminar in the International Political Economy
Prerequisites: Graduate standing.
Description: Research on the mechanics and theories of interaction between economic and political phenomena. Same course as INTL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5223 Security Analysis and Briefing
Description: The purpose of this course is to provide students with the basic tools used by intelligence analysis. In the course, we will discuss the psychology of intelligence, how to nurture analytical creativity, methods of intelligence analysis, and ways that analysts present their findings to the consumer. We will also engage in several exercises involving both hypothetical and real-world problems that will allow you to develop your critical thinking skills. Finally, we will create an intelligence product that brings together all the skills learned in the course. May not be used for degree credit with POLS 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5253 Conflict Management and Peacebuilding
Description: An introduction to the tactics, strategies, and tools of conflict management. Student will engage with current research in this field, with a focus on understanding of what works - and what does not - in resolving civil wars and communal violence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5273 Diplomacy
Description: Overview of the theoretical and practical dimensions of diplomacy. This class explores the history of diplomacy, its place within the study of international relations, the rise of diplomatic norms, the evolution of diplomacy, and the fragility and art of negotiation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5313 Public Management
Description: Introduction to the general principles of management as they are applied in the public sector. Systems theory, organization design, and techniques of supervision.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5320 Seminar in Public Budgeting and Finance
Description: Major processes and practices involved in governmental budgeting in the United States at national, state and local level. May not be used for degree credit with POLS 4413. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5323 Urban Politics and Management
Description: Introduction to the concepts, processes and techniques of managing urban political systems to include problems of leadership, decision-making, general management and group behavior. May not be used for degree credit with POLS 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5333 Seminar in Public Personnel Administration
Description: Current practices, problems and issues in public sector personnel administration, including merit system, civil service reform collective bargaining, and equal opportunity and affirmative action. May not be used for degree credit with POLS 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5353 Seminar in Design, Structure and Processes of Public Organizations
Description: Administration in the public sector, stressing traditional and emerging organization structures. Awareness of administrative processes and environment that include program design, implementation, and administrative accountability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5363 Public Sector Dispute Resolution
Prerequisites: Senior or graduate standing.
Description: Labor relations and employment issues in the public sector, and the various methods for resolving government personnel conflicts without resort to violence or litigation. Focus on labor law, employment law and Alternative Dispute Resolution as they apply to government employment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5393 Politics of Disaster
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5403 ProSeminar in Comparative Politics
Prerequisites: Graduate standing and 5303 or consent of instructor.
Description: Situates disaster phases in the political context at the local, national, and international levels. Examines research on specific events and their interactive effects between the political system and various phases of disaster.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5410 Topics Seminar in Comparative Politics
Description: In-depth examination of critical topics and issues in Comparative Politics. May be repeated up to 6 hours with different topics. May not be used for degree credit with POLS 4020. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5510 Seminar in Political Behavior
Description: Examination of contemporary theories of political behavior with emphasis on empirical studies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 3-18 Other: 3-18
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5513 Seminar in Political Psychology
Description: Examination of psychological theories as they pertain to political behavior, including attitude change, political cognition, public opinion and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5613 Public Policy Analysis
Description: Analytical methods for evaluating public policies and examination of the public processes including policy design, implementation and evaluation. May not be used for degree credit with POLS 3493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5620 Seminar in Natural Resource Policy, Law and Administration
Description: Analysis of the legal and public policy aspects of environmental regulation, including special emphasis on one of three components: environmental law, administrative law, and national resource law and policy. May not be used for degree credit with POLS 4593. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5633 Practical Environmental Compliance
Description: Environmental decision-making, reading and understanding environmental statutes and regulations, and effectively dealing with the EPA. Environmental permitting and enforcement, policies and procedures. Review of hazardous waste regulations with emphasis on ground water problems. May not be used for degree credit with POLS 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5643 Regulatory Risk Analysis
Description: Risk-based decision making, government's risk analysis paradigm, risk analysis policy, and social aspects of risk assessment. Review of the RCRA corrective action, CERCLA (Superfund) remedial action, and NEPA environmental impact study programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5673 Understanding and Responding to Terrorism
Description: Exploration of the experience of non-state terrorism in the U.S. and Western European democracies in the late 20th century. Understanding terrorism as a political, social, and historical phenomenon; the current and future threat of terrorism, both foreign and domestic; governmental choices in responding to terrorism in democratic societies and; U.S. anti-terrorism policies and considerations that emergency responders face in preparing for and responding to terrorist incidents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5703 ProSeminar in American Politics
Description: Overview of a wide range of classic works in American institutions and Political Behavior. It examines not only the classic works in each area of these subfields, but a sampling of current work being done in the field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5710 Topics Seminar in American Politics
Description: In-depth examination of critical topics and issues in American Politics. May be repeated up to 6 hours with different topics. May not be used for degree credit with POLS 4000. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5713 Seminar in Public Law
Description: Literature of public law in the United States. Overview of the approaches that shape the theoretical and empirical contours of the public law field and contribute to multidisciplinary law and social science studies. May not be used for degree credit with POLS 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5720 Topics in Political Science
Description: In-depth examination of critical topics and issues in Political Science. May be repeated up to 6 hours with different topics. Offered for fixed credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5743 Seminar in Political Communication
Description: Examination of recent theories within politics and the media, including effects of media on opinion, role of media as a political institution and the role of media during elections.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5810 Seminar in Women and Politics
Prerequisites: Graduate standing.
Description: Research on a variety of topics concerning women and politics, including women's movements, women and elections, and public opinion. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5943 Complex Emergencies
Prerequisites: Graduate Standing.
Description: This course examines complex emergencies from an emergency management perspective. We will look at the collapse of governance, the causes of armed conflict, food insecurity, infectious disease, natural disasters, and so on and examine specific cases in detail. Furthermore, we will look at how the international community responds to these crises, and which agencies are involved in relief efforts. We will apply the traditional four phases of disaster management these situations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 6000 Doctoral Dissertation Research
Prerequisites: Consent of major professor.
Description: Research for PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 6013 Qualitative Methods
Prerequisites: POLS 5103.
Description: Qualitative methods for collecting and analyzing data from the social sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

Psychology (PSYC)

PSYC 1111 Succeeding in Psychology
Description: This course will serve as a practical guide to making the most of your time as a psychology major at OSU and preparing for your work life beyond OSU, whether in graduate school or a career. You will learn about: resources that are available within the Psychology Department at OSU to help you succeed, strategies to maximize your competitiveness as a potential graduate student or future employee, and steps to take as you plan for your career after graduation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 1113 Introductory Psychology (S)
Description: Principles, theories, vocabulary and applications of the science of psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2313 Psychology of Adjustment
Prerequisites: PSYC 1113.
Description: This course provides an introductory examination of the applied psychological theory and research concerning mental health and well-being. Subjects include stress and coping, identity, gender, personal growth, communication, interpersonal relationships, psychological disorders and treatment, and career issues. This course was previously taught as Psychology and Human Problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2443 Clinical Child Psychology
Prerequisites: PSYC 1113 with grade of "C" or better.
Description: This course will present information from empirical research, key theories, and concepts that shape the current understanding of developmental psychopathology, and clinical child and adolescent psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2583 Developmental Psychology (S)
Prerequisites: PSYC 1113.
Description: The nature of pertinent studies, causes, and theories of human developmental phenomena across the life span. Course previously offered as PSYC 3583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2593 Psychology of Human Sexuality
Prerequisites: PSYC 1113.
Description: Survey of behavioral, personality and psychophysiological components of human sexuality, with special emphasis on the delineation of facts from sexual myths.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2743 Social Psychology (S)
Prerequisites: PSYC 1113.
Description: Theories and applications of social cognition, the self, pro-social and aggressive behavior, groups, attitudes and the environment. Course previously offered as PSYC 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2890 Honors Experience in Psychology
Prerequisites: Honors Program participation and concurrent enrollment in a designated PSYC course.
Description: A supplemental Honors experience in Psychology to partner concurrently with designated Psychology course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 3003 Data Analysis with Observation Oriented Modeling
Prerequisites: PSYC 3214 and 3 hours MATH or STAT designated "A."
Description: Students will learn a suite of nonparametric analysis techniques (Observation Oriented Modeling) that are simple to use, easy to understand, and designed for data collected in the social and life sciences. Measurement, causal modeling, and the history of modern statistical methods of data analysis will also be covered in this course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3013 Psychology of Motivation
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Examines the initiation, persistence and achievement of goal-directed behavior. Theory, research and applications of these concepts are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3033 Psychology of Humor (S)
Prerequisites: PSYC 1113.
Description: The course will examine theoretical perspective on the topic of humor, including cross-cultural and individual a well as the development of humor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3053 Psychology of Art (S)
Prerequisites: PSYC 1113.
Description: The course will examine psychological approaches to the understanding of how art is experienced and produced. The course will examine all forms of art, including visual art, music, sculpture, and other forms of artistic expression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3073 Neurobiological Psychology (N)
Prerequisites: PSYC 1113.
Description: Neural bases of human experience and behavior. Topics include sensation and perception, motivation and emotion, learning and thinking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3113 Comparative Psychology (N)
Prerequisites: PSYC 1113.
Description: Comparative study of behavior characteristics of selected samples of the animal kingdom from protozoa to humans. Topics include the history of comparative psychology, how to design a comparative experiment, and the importance of comparative psychology in our daily lives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3120 Special Topics in Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Special topics in psychology to be determined by faculty. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 3173 Introduction to Cognitive Science (N)
Description: Introduction to the study of human and artificial intelligence. The course will survey contributions to the understanding of intelligence from psychology, neuroscience, computer science, philosophy, and linguistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3214 Statistical Methods in Psychology
Prerequisites: PSYC 1113, and either MATH 1483 or MATH 1513 or higher, or STAT 2013 or higher, with a grade of "C" or higher in one of the prerequisite math or statistics courses.
Description: Evaluation of research in psychology including scales of measurement and quantitative/statistical procedures for data analysis and inference. Course will cover descriptive statistics and inferential statistics with emphasis on procedures used in the psychological sciences.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 3343 Black Psychology (DS)
Prerequisites: PSYC 1113.
Description: Students will gain an understanding of the psychology of African Americans drawing upon African and American cultures and perspectives. The course will cover the foundations of African American psychology, African philosophy, Africentric psychology, intrapersonal and interpersonal topics such as family and community, peers and friends, racial identity, and select social issues among African Americans such as physical and mental health, education, racism, and employment. Same course as AFAM 3343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity, Society & Human Behavior

PSYC 3413 Social Cognition & Behavior; Mating, Morality, & other Mysteries
Prerequisites: PSYC 1113 and PSYC 2743 and 3 hours MATH or STAT designated "A."
Description: We investigate advanced topics in social psychology dealing with social cognition, perception, and interpersonal behavior (e.g., cooperation, friendship, mating aggression), with special emphasis on cutting-edge theoretical approaches and understanding the processes of critically consuming and generating social psychological research. Previously taught as Psychology of Social Behaviors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3443 Psychopathology (S)
Prerequisites: PSYC 1113.
Description: This course will examine the major psychological disorders, their causes, and how they are treated. The primary focus will be on the description of adult disorders and theories of etiology/treatment. Previously offered as Abnormal Psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3513 Psychology of Learning
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Behavior change as a function of experience from relatively simple learning processes such as classical and instrumental conditioning to relatively complex processes such as verbal learning and concept identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3713 Psychology of Memory
Prerequisites: PSYC 1113 and three additional hours of psychology and 3 hours MATH or STAT designated "A."
Description: An overview of scientific research on human memory including how memory operates in daily life, how memory changes as we age, why we do not remember much of our early childhood, memory disorders, and eyewitness memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3823 Cognitive Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Cognitive processes. Thinking, problem solving, visual imagery, attention, and memory search. Both theory and application emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3883 Positive Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course focuses on the positive side of human nature and the most effective ways to pursue the good life by examining scientific research centered on the nature of happiness and psychological well-being.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3890 Advanced Honors Experience in PSYC
Prerequisites: Honors Program participation and concurrent enrollment in a designated PSYC course.
Description: A supplemental Honors experience in Psychology to partner concurrently with designated upper-division PSYC course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology
Prerequisites: PSYC 1113 and PSYC 3214 with a grade of "C" or better, and 3 hours MATH or STAT designated "A."
Description: Examination of fundamentals of the scientific method as applied to research in psychology. Research design, sampling, measurement, analytical, evaluative, and interpretive skills needed to understand the professional research literature. Includes a laboratory component in which students conduct research, use SPSS for data analysis, and write APA style papers.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 3990 Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written papers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 4013 Introduction to Pediatric Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Pediatric psychology is a dynamic subspecialty that involves promotion of children's health and delivery of psychological services to children with both acute and chronic illnesses. This course provides an introduction to the field of pediatric psychology, including historical perspectives, theoretical models and underpinnings, roles of the pediatric psychologist in a number of hospital and clinic settings, and psychosocial interventions with a variety of childhood chronic illnesses and diseases. In addition, this course covers the empirical knowledge base for public health, injury prevention, pain management, consultation and liaison work, as well as general assessment and intervention in medical contexts for children with a variety of health-related issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4023 Evolutionary Psychology (N)
Prerequisites: PSYC 1113
Description: Evolutionary psychology is the scientific study of human nature that focuses on understanding the psychological adaptations that evolved to solve ancestral survival and reproductive problems. The course begins with a brief historical review of key themes in psychology and evolutionary biology. The adaptive problems of survival, long-term mating, sexuality, parenting, kinship, cooperation, aggression and warfare, conflict between the sexes, status, prestige, and social dominance are covered in the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 4073 Principles of Neuroscience
Prerequisites: BIOL 1114 or (BIOL 1113 or BIOL 1111) and either (CHEM 1215, CHEM 1314, or CHEM 1414).
Description: Neuroscience is an interdisciplinary field focused on understanding the structure and function of the brain, spinal cord, and peripheral nervous system. This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as BIOL 4073. May not be used for degree credit with BIOL 5073 or PSYC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4123 Psychology of Women (DS)
Prerequisites: PSYC 1113.
Description: This course examines the biological, psychological and sociocultural factors influencing behavior, cognition, and affect in the lives of women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity, Society & Human Behavior

PSYC 4143 Psychology and Law
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: The new psycho-legal literature reviewed with emphasis on the psychological basis of voir dire, eyewitness behavior, courtroom persuasion, jury deliberation and mental health issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4153 Psychology and Mass Media
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Examination of the role of mass media in shaping public perceptions of mental illness and mental health treatment with a focus on the role of popular films. Students will learn to critically evaluate the veracity of film portrayals as well as common themes involving mental health. Also, aspects of social and cognitive psychology in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4163 Psychology of Prejudice and Discrimination (D)
Prerequisites: PSYC 1113.
Description: Explores the nature and causes of stereotyping, discrimination and minority experience, mainly from a social psychological perspective. Examines how these issues impact social group members, especially members of low status or minority groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity

PSYC 4183 Issues in Clinical Psychology
Prerequisites: PSYC 1113 and three additional hours of psychology and 3 hours MATH or STAT designated "A."
Description: An in-depth look at clinical psychology including the role of science in clinical psychology, specialty areas in the discipline, and major therapy approaches. Also examines clinical psychology as a profession and applying to graduate school in clinical psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4213 Conflict Resolution (S)
Prerequisites: PSYC 1113.
Description: Interpersonal conflict studied from psychological perspectives. Types and uses of conflict, and conditions for constructive dispute settlement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4223 Decision Making and Problem Solving
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: An examination of the research literature on individual decision-making and problem solving with dual emphases on theory and application. A thorough prior understanding of the human cognitive system is desirable, but not required. May not be used for degree credit with PSYC 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4243 Psychology of Aging
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: This course aims to increase your understanding of the human aging process through traditional classroom experiences focusing on knowledge of the physical, cognitive, and social changes that are part of late adulthood. Additionally, students will learn more actively by working with older adults who are living in our community. Our overall goal is to enhance our understanding of the psychology of aging by integrating our classroom-acquired knowledge with our community service experiences. May not be used for degree credit with PSYC 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4263 Affective Neuroscience
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course will examine biological mechanisms underlying emotions. Topics include basic theories of emotion, the neural circuits associated with emotion generation, as well as related cognitive processes. May not be used for degree credit with PSYC 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4283 Health Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course will explore the interplay between psychology and health, including the psychological impact of illness, psychological contributions to illness and wellness, health behaviors, and psychological interventions to improve health and healthcare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4293 Forensic Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course provides an introduction to forensic psychology, the relationship between psychology and law. The course examines five subspecialties of forensic psychology including associated careers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4333 Personality
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: Basic assumptions, research, and clinical issues relating to the major personality theories. May not be used for degree credit with PSYC 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4343 Language Development (S)
Prerequisites: PSYC 1113 or consent of instructor.
Description: Current theory and research on the development of language throughout the lifespan. The nature of language, first language acquisition, second and third language acquisition, brain and language, language processing, social aspects of language, gender differences in language use and language processing, language use by older adults, language use directed at older adults, language disorders, and language use in special populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4353 History of the Human Soul
Prerequisites: 3 hours MATH or STAT designated "A."
Description: Psychology literally means the study of the soul, and in this course students will explore the history of the human soul from antiquity to modern times. Students will read selections from various literary figures, scholars, and philosophers, such as Oscar Wilde, Victor Frankl, Plato, Aristotle, and St. Thomas Aquinas. Modern psychological theories will then be explored and discussed in light of these works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4483 Psychology of Parent Behavior (S)
Prerequisites: PSYC 1113.
Description: Historical and contemporary conceptions of parent-child relationship and approaches to communication and discipline; special problems in parenting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4493 History of Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: History of psychology as an aspect of European intellectual history. Psychological thought from early philosophical roots to modern conceptions of psychology as a science. Topics include the contribution of under-represented groups to psychology and the role of non-European contributions to psychological thought and the solution to practical problems. May not be used for degree credit with PSYC 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4633 Psychology of Sport and Human Performance
Prerequisites: PSYC 1113 and 3 hours hours MATH or STAT designated "A."
Description: This course will explore psychological issues related to sport and human performance, including performance enhancement, stress and arousal, motivation, leadership, and coping with injury and retirement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4770 Undergraduate Senior Thesis
Prerequisites: PSYC 1113, PSYC 3214, PSYC 3914, junior or senior standing and consent of instructor.
Description: The thesis is an empirical study that results in a manuscript conforming to APA style. It should contain a literature review that informs specific hypothesis, as well as method, results, discussion, and reference sections. The results section of the manuscript is typically based on data collected by the student, but it is also acceptable for it to stem from an original analysis of an archival dataset. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 4813 Psychological Testing
Prerequisites: PSYC 1113 and PSYC 3214 and 3 hours MATH or STAT designated "A."
Description: Quantitative aspects of measurement and testing, with emphasis on scaling, standardization, reliability and validity. Basic principles of construction and the ethics of use.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4880 Senior Honors Thesis
Prerequisites: PSYC 1113, PSYC 3214, PSYC 3914, departmental invitation, senior standing.
Description: The thesis is an empirical study that results in a manuscript conforming to APA style. It should contain a literature review that informs specific hypothesis, as well as method, results, discussion, and reference sections. The results section of the manuscript is typically based on data collected by the student, but it is also acceptable for it to stem from an original analysis of an archival dataset. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 4883 Current Issues in Psychology
Prerequisites: PSYC 3214, PSYC 3914 and 3 hours MATH or STAT designated "A."
Description: A capstone course examining current issues in psychology, their relationship to current issues in other academic disciplines, and their relevance in an educated society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4990 Research Practicum
Prerequisites: PSYC 1113, PSYC 3214 and consent of instructor.
Description: Supervised research experiences in psychology with a faculty member. May involve meetings and written paper(s). Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5000 Thesis
Description: Required of all graduate students majoring in psychology and writing a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5073 Principles of Neuroscience
Description: This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as BIOL 5073 and BIOM 5983. May not be used for degree credit with BIOL 4073 or PSYC 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5113 Psychopathology
Prerequisites: Graduate standing in psychology or consent of instructor.
Description: Principles of diagnosis and treatment of major disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5120 Psychology Workshop
Description: Provides an opportunity to study specific psychological problems, both applied and theoretical. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5153 Cognitive Assessment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: Issues of psychological testing and assessment, psychometric theory, and ethics of testing as well as fundamental skills of cognitive and intellectual assessment, including administration, scoring, and interpretation of cognitive tests and report writing. Application of cognitive tests to specific clinical problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5190 Ethics and Professional Development in Psychology
Prerequisites: Graduate standing in the Department of Psychology.
Description: Professional development, ethics, and legal issues relevant to teaching, research, and clinical practice of psychology. Previously offered as PSYC 5193. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5233 Introduction to Clinical Methods
Prerequisites: Consent of instructor.
Description: Introduction to a variety of topics relevant to clinical psychology training and professional development. Course will provide a foundation for subsequent training experiences. A special emphasis is placed upon developing the common therapy skills that will form a foundation for future clinical training experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5243 Psychology of Aging
Prerequisites: Consent of instructor.
Description: This course aims to increase your understanding of the human aging process through traditional classroom experiences focusing on knowledge of the physical, cognitive, and social changes that are part of late adulthood. Additionally, students will learn more actively by working with older adults who are living in our community. Our overall goal is to enhance our understanding of the psychology of aging by integrating our classroom-acquired knowledge with our community service experiences. May not be used for degree credit with PSYC 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5293 Decision Making and Problem Solving
Prerequisites: Consent of instructor.
Description: An examination of the research literature on individual decision-making and problem solving with dual emphases on theory and application. A thorough prior understanding of the human cognitive system is desirable, but not required. May not be used for degree credit with PSYC 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5304 Quantitative Methods in Psychology I
Description: Hypothesis testing, chi-square, student's t, bivariate correlation and linear regression in psychology. Critical thinking regarding the application of statistical methods is stressed. The use of contemporary statistical software for analyses is covered. Course previously offered as PSYC 5303.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5314 Quantitative Methods in Psychology II
Prerequisites: PSYC 5304.
Description: Higher-order analysis of variance designs, correlation and regression techniques, and analysis of covariance, with emphasis on applications to psychological experimentation. Computer applications of all procedures using SPSS and/or SAS during the lab. Course previously offered as PSYC 5313.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5333 Systems of Psychotherapy
Prerequisites: PSYC 5113; graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: The major approaches to psychotherapy. Methods for creating multiple impact for behavioral change, including interpersonal, social, community and preventative interventions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5380 Research
Prerequisites: Consent of instructor.
Description: Research project on some psychological problem. Offered for variable credit, 1-12 credit hours, maximum of 24 credit hours.
Credit hours: 1-24
Contact hours: Contact: 1-24 Other: 1-24
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5493 History of Psychology
Description: History of psychology as an aspect of European intellectual history. Psychological thought from early philosophical roots to modern conceptions of psychology as a science. Topics include the contribution of under-represented groups to psychology and the role of non-European contributions to psychological thought and the solution to practical problems. May not be used for degree credit with PSYC 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5533 Personality
Prerequisites: Consent of instructor.
Description: Basic assumptions, research, and clinical issues relating to the major personality theories. May not be used for degree credit with PSYC 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5620 Seminar in Psychology
Prerequisites: Consent of instructor.
Description: Consideration of special topics that are particularly timely or technical in nature. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5660 Teaching Practicum
Prerequisites: Consent of instructor.
Description: Primarily for graduate students with well-defined new teaching responsibilities. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5663 Affective Neuroscience
Description: This course will examine biological mechanisms underlying emotions. Topics include basic theories of emotion, the neural circuits associated with emotion generation, as well as related cognitive processes. May not be used for degree credit with PSYC 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5813 Lifespan Cognitive Developmental Psychology
Prerequisites: Consent of instructor.
Description: Examines theory and basic research related to the age-related changes in human cognition that occur for a typically developing individual during infancy, childhood, early adulthood, middle age and late adulthood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5823 Cognitive Processes
Description: Theory and experimental research findings dealing with human thought processes from a developmental and functional standpoint.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5913 Lifespan Social Developmental Psychology
Prerequisites: Consent of instructor.
Description: Examines theory and basic research in social, emotional, and personality development in infancy, childhood, adolescence, and adulthood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6000 Dissertation
Description: Research and report thereon by graduate students in partial fulfillment of requirements for the Doctor of Philosophy degree. Offered for variable credit, 1-16 credit hours, maximum of 60 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6083 Principles of Evidence-Based Psychological Treatment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: Principles and procedures of evidence-based psychological treatments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6133 Ethnic and Cultural Diversity in Psychotherapy
Prerequisites: Six credit hours of psychology and consent of instructor.
Description: Increasing understanding and appreciation of ethnic and cultural diversity in the psychotherapy context. Critical examination of theory and research related to psychotherapy with multicultural populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6143 The Psychology of Substance Abuse
Prerequisites: Consent of instructor.
Description: Introduction to psychological classification of psychoactive substance (alcohol and drug) use disorders. Theory and research on psychological, biological, and environmental factors that are concomitants of substance abuse. Overview of major research techniques and treatment modalities in this area.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6173 Child Psychopathology and Treatment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology, the doctorate school psychology program or the psychometry program, or consent of instructor.
Description: Theoretical positions and issues in child psychopathology. Procedures used in the treatment of psychological disorders of children.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6223 Research Design
Description: Experimental techniques in psychophysics, sensory processes, attention and perception, motivation and emotion, and learning and memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6233 Clinical Research Design
Prerequisites: PSYC 5304 and PSYC 5314 or consent of instructor.
Description: Methodology and research practices in clinical psychology, including experimental design, research practice, data analysis and interpretation, ethics, and dissemination of research findings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6253 Seminar in Human Development
Prerequisites: Consent of instructor.
Description: Behavioral aspects of development from the prenatal period to senescence. Normal development contrasted to exceptional development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6353 Psychology of Motivation
Description: Outline of theory and research in human and animal motivation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6393 Language Development
Description: Review of data and theories of language development. Laboratory techniques and experimental designs will also be reviewed to emphasize understanding of past and contemporary research in language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6413 Evidence Based Assessment and Therapy
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: This course is designed to enhance students' historical, theoretical, empirical, and technical understanding of evidence-based psychological treatments and introduce clinical psychology graduate students to issues and skills relevant for psychodiagnostic and personality assessment. The scope of this course will be limited to assessments and treatments typically delivered to adults seen in an outpatient setting, as well as the historical context of assessment and psychological treatment, research evidence, and descriptions and demonstrations of techniques. No credit for PSYC 6083 or PSYC 6753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6443 Behavioral Medicine
Prerequisites: Graduate standing in the clinical program of the Department of Psychology; consent of instructor.
Description: An advanced graduate course for students in training for a PhD in clinical psychology. General considerations for psychophysiological disorders, general intervention strategies in behavioral medicine, including biofeedback and specific consideration and intervention strategies for specific disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6453 Pediatric Psychology
Prerequisites: Graduate standing in the Department of Psychology; consent of instructor.
Description: Overview of the field of pediatric psychology, including historical perspectives, theoretical underpinnings, and application to a variety of child health problems. Childhood chronic illness, injury prevention, pain management, and consultation and intervention in medical contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6483 Neurobiological Psychology
Prerequisites: PSYC 3073 and PSYC 3914 or consent of instructor.
Description: Physiological, neuroanatomical, and neurochemical underpinnings of human behavior. Emphasis on effects of central nervous system dysfunctions on behavioral processes ranging from sensation to concept formation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6523 Family Treatment Methods
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or the doctorate counseling psychology program.
Description: Introduction to techniques and philosophies of family treatment. Includes marital counseling and emphasis on family dynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6543 Stereotyping, Prejudice, and Discrimination in Social Cognition
Prerequisites: Consent of Instructor.
Description: In this course we will investigate the social and cognitive processes and implications of stereotyping, prejudice, and discrimination (SPD). We will consider such questions as: What are the psychological and material costs of SPD - both for targets and those who hold them? Where do our stereotypes and prejudices come from, and what functions might they serve? How do perceptions, attention, and memory shape - and get shaped by - SPD?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6563 Advanced Social Psychology
Description: History, theory and experimentation of dynamic interaction of group membership and individual behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6583 Developmental Psychobiology
Prerequisites: Consent of instructor.
Description: An exploration of the biological aspects of human development with particular emphasis on the physiological, ethological, and genetic perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6593 Evolutionary Social Science
Prerequisites: Consent of Instructor.
Description: Evolutionary social science (ESS) is an interdisciplinary topic. This course will introduce you to ESS, which includes evolutionary psychology, human behavioral ecology, and cultural evolution. The course goal is to introduce you to evolutionary approaches to investigating human social cognition and behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6613 Experimental Learning Theories
Prerequisites: Nine credit hours of psychology.
Description: Basic concepts and empirical findings in animal and human learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6640 Clinical Practicum
Prerequisites: Graduate standing in the clinical program of the Department of Psychology.
Description: Practicum experience for graduate students in the clinical psychology program. Offered for variable credit, 1-12 credit hours, maximum of 17 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6643 Psychopharmacology
Prerequisites: Consent of instructor.
Description: A comprehensive course dealing with the various classes of drugs that affect the central nervous system. Primary focus is on clinical research with humans. Covers topics ranging from drug-receptor interactions through substance abuse and behavioral disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6650 Practicum
Prerequisites: Graduate standing in the clinical program of the Department of Psychology.
Description: For the marriage and family practicum only, doctoral level counseling psychology students may also enroll. Practicum experience for graduate students in the clinical program of the Department of Psychology who are doing supervised practicum in specific clinical areas of specialization. Offered for variable credit, 1-16 credit hours, maximum of 16 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6723 Child Diagnostic Methods
Prerequisites: PSYC 5153, graduate standing in the clinical program in psychology or the doctoral school psychology program or consent of instructor.
Description: Administration and interpretation of diagnostic instruments used specifically with children.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6753 Assessment of Personality
Prerequisites: Graduate standing in the clinical program or consent of instructor.
Description: Personality assessment and training in the practice of clinical assessment. Trait theory and assessment, techniques of test construction, contemporary assessment techniques including the MMPI-2, test result interpretation and communication, and behavioral methods of assessment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6813 Multivariate Statistics for Psychology
Prerequisites: PSYC 5304 and 5314 or permission of instructor.
Description: A variety of multivariate statistical methods are covered with emphasis on their application to psychological research. Factor analysis, MANOVA, CANONA, Generalized Procrustes Analysis, as well as other topics are covered. Matrix algebra is also reviewed, and the geometric approach to multivariate statistics is introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6913 Multilevel Modeling in Psychology
Prerequisites: PSYC 5304 and 5314; or permission of instructor.
Description: Trains students in the theory and application of multilevel models for nested and repeated measures data in psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6990 Advanced Internship in Clinical Psychology
Description: Graduate standing in the clinical psychology program or consent of instructor. Designed to provide advanced clinical training in preparation for receipt of the Ph.D. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

Public Safety (PSAF)

PSAF 4010 Special Topics in Public Safety
Description: This course introduces students to advanced issues and topics related to public safety/law enforcement and provides and analysis of a contemporary topic to enhance understanding of public safety and law enforcement issues. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Lecture: 1-15 Contact: 1-15
Levels: Undergraduate
Schedule types: Lecture
Department/School: Professional Studies

Recreation Management & Recreational Therapy (RMRT)

RMRT 2433 Introduction to Recreational Therapy
Description: Theory and application of recreational therapy with emphasis on types of illnesses and disabilities, delivery systems, programming services. Previously offered as RMTR 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 3431 Recreation Management Practicum I
Prerequisites: RMRT 2413.
Description: Supervised practical experience with leadership responsibilities for planning, conducting and evaluating activities and programs. Graded on a pass-fail basis. Previously offered as RMTR 3431.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 3432 Recreation Management Practicum II
Description: Supervised practical experience with leadership responsibilities for planning, conducting and evaluating activities and programs. Previously offered as RMTR 3432. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5000 Master's Thesis
Prerequisites: Consent of major professor.
Description: Research in Recreation Management and/or Recreational Therapy for master's degree. Previously offered as LEIS 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5010 Directed Study in Recreation Management
Prerequisites: Permission of Instructor.
Description: Directed study within recreation management. Previously offered as LEIS 5010. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5013 Recreation and a Technologically Advanced Society
Description: Investigate the recreational needs of modern society locally and globally. Consider new methods of recreation participation and communicating recreation information to target populations and devise strategies to implement these methods. Utilize modern tools to incorporate recreation activities into participants' lives. May not be used for degree credit with RMRT 4013 or RM 4013. Previously offered as LEIS 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5020 Workshop in Recreation Management
Prerequisites: Consent of instructor.
Description: Advanced instruction on specialized topic areas in recreation management. Previously offered as LEIS 5020. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5023 Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services
Description: The application and interpretation of the law as it applies to teachers, coaches and administrators of recreation management, health, physical education, and leisure services programs. Course previously offered as HHP 5023 and LEIS 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5030 Field Problems in Recreation Management
Prerequisites: Consent of instructor.
Description: Applied research within the practice of recreation management. Previously offered as LEIS 5030. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5033 Recreation Specialization and Serious Leisure
Description: The Serious Leisure Theory focuses on leisure participation in which a persons is highly concentrated on one pursuit. This course investigates the details of the theory, how this theory can be observed in participants, and how to facilitate recreation and leisure programs to fulfill the needs of those engaged in Serious Leisure pursuits. May not be used for degree credit with RMRT 4023 or RM 4023. Previously offered as LEIS 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5073 Recreational Therapy and Geriatrics
Prerequisites: LEIS 2433 or consent of instructor.
Description: Role of Recreational Therapists (RT) working with geriatric population. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as LEIS 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5110 Directed Studies in Recreational Management
Prerequisites: Consent of Instructor.
Description: Supervised readings, research or study of trends and issues related to Recreation Management. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5113 Graduate Internship in Recreation Management
Prerequisites: Graduate student status.
Description: Supervised practical experience with leadership responsibilities for planning, leading, and evaluating activities and programs. Previously offered as LEIS 5113.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5120 Workshop in Recreational Therapy
Prerequisites: Consent of Instructor.
Description: Advanced instruction on specialized topic areas in recreational therapy. Offered for variable credit, 1-6 hours per semester for a maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5130 Field Problems in Recreational Therapy
Description: Applied research within the practice of recreational therapy. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5231 Formal Report in RMRT
Prerequisites: Consent of instructor.
Description: Applied research utilized in the creation of a formal report as a culminating product of a master's program.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5403 Outdoor Recreation
Prerequisites: Graduate Student Standing.
Description: Theory and practical application of outdoor recreation concepts with emphasis on programs, pursuits, philosophies, principles, policies, economics, trends and problems. Course previously offered as HPEL 5403 and LEIS 5403. May not be used for degree credit with RMTR 4473, RMRT 4473 or RM 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5413 Organization and Administration of Recreation and Leisure Services
Prerequisites: Graduate Student Standing.
Description: Systematic approach to problem solving and decision making for structure, personnel management, financing, and program development for recreation and leisure service delivery systems. Course previously offered as HPEL 5413 and LEIS 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5423 Supervision of Recreation Management People and Programs
Prerequisites: Graduate standing.
Description: Administrative supervision and leadership in Recreation Management delivery systems. An examination of theories and practices as related to personnel, participants, and facility resources. Previously offered as LEIS 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5433 Current Issues in Recreation Management
Description: Current issues related to the recreation management services profession. Investigation, discussion and analysis of contemporary issues. Previously offered as HPEL 5443 and LEIS 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5443 Social Foundations of Recreation Management
Prerequisites: Graduate standing.
Description: Social, psychological, philosophical and historical foundations of recreation and recreation management. The impact of social forces on recreation and leisure throughout history. Course previously offered as HPEL 5443 and LEIS 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5453 Recreation Management and Recreational Therapy Experiential Learning Lab
Description: Lecture, discussion, and experiential lab investigating human behaviors, thoughts, attitudes, and practices related to recreation. The understanding of the complexity of providing recreation and recreational therapy services to a variety of target populations. Previously offered as LEIS 5453.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RMRT 5463 Issues in Recreational Therapy
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: Current issues in recreational therapy with emphasis on accreditation, certification, licensure, quality assurance and ethics. Previously offered as LEIS 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5473 Recreation and Aging
Description: Overview of the recreation needs and services for older adults, with emphasis upon the delivery system and recreation activities. Course previously offered as HPEL 5473 and LEIS 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5483 Recreational Therapy for Persons with Physical Disabilities
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: The role of recreational therapy in the treatment and rehabilitation of individuals with physical disabilities. Emphasis on terminology, prognosis, etiology or specific disabilities, program development, assessment. Previously offered as LEIS 5483 and HPEL 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5493 Recreational Therapy in Mental Health and Intellectual Disabilities
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: The role of recreational therapists (RT) in mental health or intellectual disabilities with emphasis upon client prognosis and methodologies of treatment programs. Previously offered as LEIS 5493 & HPEL 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5513 Recreation and Leisure Education
Description: Models of recreation leisure education discussed and practices in conjunction with enhancing student's ability with basic skills of recreation and leisure counseling to facilitate optimal recreation and leisure pursuits. May not be used for degree credit with RMTR 4513, RMRT 4513 or RM 4513. Previously offered as LEIS 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5553 Tourism in Recreation Settings
Description: Theory and foundations of the philosophy, principles and practices that associate tourism with recreation agencies and settings. May not be used for degree credit with RMTR 4553, RMRT 4553 or RM 4553. Previously offered as LEIS 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5563 Entrepreneur Recreation Management
Description: Introduction to the scope, characteristics and management aspects of the commercial recreation industry from an entrepreneurial perspective. May not be used for degree credit with RMTR 4563, RMRT 4563 or RM 4563. Previously offered as LEIS 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5603 Outdoor Education
Description: Development of a holistic approach to teaching and learning in the outdoors. Learning in, about, and for, the out-of-doors as a process for acquiring skills with which to enjoy outdoor pursuits. May not be used for degree credit with RMTR 4453, RMRT 4453 or RM 4453. Previously offered as LEIS 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5703 Areas and Facilities in Recreation Management Services
Description: Planning, design and development of areas and facilities in recreation management service delivery systems. May not be used for degree credit with RMTR 4463, RMRT 4463 or RM 4463. Previously offered as LEIS 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5713 Campus Recreation, Intramurals, and Sport
Description: Program operations, industry standards, and current issues surrounding these areas of the recreation industry. May not be used for degree credit with RMRT 4713 or RM 4713. Previously offered as LEIS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5933 Advanced Methods in Recreational Therapy
Description: Theoretical and practical examination of contemporary implementation procedures used in recreational therapy practice. May not be used for degree credit with RMRT 4933 or RT 4933. Previously offered as LEIS 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5943 Grant Writing and Nonprofit Management
Description: Methods and techniques used in grant writing as well as the establishment of a nonprofit agency. Previously offered as LEIS 5943. May not be used for degree credit with RMTR 4943, RMRT 4943 or RM 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6000 Doctoral Dissertation in Recreation Management and/or Recreational Therapy
Description: Required of all candidates for the Doctor of Philosophy degree in Recreation Management. Credit is given upon completion of the dissertation. Previously offered as LEIS 6000. Offered for variable credit, 1-9 credit hours, maximum of 25 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6010 Independent Study in Recreation Management
Prerequisites: Consent of instructor.
Description: Supervised readings, research or study of trends and issues related to recreation management studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours. Previously offered as LEIS 6010.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6013 Ethical and Professional Issues in RMRT Higher Education
Description: Introduction to higher education issues relevant to professional preparation in recreation management and recreational therapy curricula, including roles of the educator, curriculum development, implementation and management, instructional strategies and accreditation. Previously offered as LEIS 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6020 Recreation Management Research Colloquium
Prerequisites: Graduate student standing.
Description: Exploration and presentation of selected topics and research in recreation management studies. Previously offered as LEIS 3020. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours. Previously offered as LEIS 6020.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6023 Special Topics in Recreation
Prerequisites: Admission to the Graduate College.
Description: Special topics related to recreation, recreational therapy and leisure services. Investigation, discussion and analysis of contemporary topics. Previously offered as LEIS 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6110 Independent Study in Recreational Therapy
Prerequisites: Consent of Instructor.
Description: Supervised readings, research or study of trends and issues related to recreational therapy studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6120 Recreational Therapy Research Colloquium
Prerequisites: Consent of instructor
Description: Exploration and presentation of selected topics and research in recreational therapy studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6123 Curriculum Development in Kinesiology, Applied Health and Recreation
Description: Identification and analysis of curriculum theories, approaches to traditional and innovative curriculum development, and relating curriculum development to accreditations with the fields of Kinesiology, Applied Health, and Recreation. Same course as HHP 5723 and HHP 6723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6223 Graduate Writings in RMRT
Description: This course will address writing types involving theory, case reports, and manuscript preparation types in Recreation Management and Recreational Therapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6323 Graduate Readings in Recreation Management and Recreational Therapy
Description: A survey of professional literature in the Recreation Management and Recreational Therapy fields and applying that to current research topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6453 Recreation Management and Recreational Therapy Behavior
Description: The advanced study of recreation and human behavior. Research related to the understanding of how and why humans engage in recreation, leisure, and play. Previously offered as LEIS 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6723 Curriculum Development in Recreation Management, Recreational Therapy, and HHP
Description: Historical, philosophical, and psychological examination of curriculum development, theories, trends, and structure. Identification and analysis of curriculum theory provides an emphasis on traditional and innovative approaches to curriculum development in recreation management, recreational therapy, kinesiology, health, and human performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6763 Management in Health, Human Performance, and Recreation Management & Recreational Therapy Setting
Prerequisites: Admission to the Graduate College.
Description: Essential elements of organizational structures, management issues, functions and styles in public, non-profit and private settings in health, human performance, and recreation management & recreational therapy. Course previously offered as HHP 5763, HPEL 5763 and LEIS 6763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Recreation Management (RM)

RM 2403 Recreation and Society (G)
Description: Exploration of the influence of recreation and leisure culture internationally to understand how society's view impacts individuals, families & communities, simultaneously. Students will engage multiple resources (readings, meetings, site visits, multidisciplinary discussions, critical reflections through written & video production) on the ways recreation and leisure practices are internationally influenced by economic, political & social drivers. Prev. offered as RMTR 2403 & RMRT 2403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: International Dimension

RM 2413 Introduction to Recreation Management
Description: The nature, scope and significance of recreation and leisure. Delivery systems for recreation, major program areas, and the interrelationship of special agencies and institutions serving the recreation needs of society. Introducing the history, philosophies, and theories related to Recreation Management. Previously offered as RMTR 2413 and RMRT 2413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 2463 Recreation Management and Recreational Therapy Laboratory
Description: Lecture, discussion and experiential learning of recreation and recreational therapy activities. Adapted activities, small and large group games, sports, arts and crafts, music, dance, drama, outdoor, aquatics, wellness, and cultural activities are included. Students also learn to determine what activities to select for various target populations. Previously offered as RMTR 2463 and RMRT 2463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RM 2473 Foundation of Recreation Management Leadership
Description: Introduction to the principles and practical applications of group leadership techniques, problem solving, supervision of personnel and participants in recreation services and settings. Previously offered as RMTR 2473 and RMRT 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3010 Workshop in Recreation Management
Prerequisites: Instructor Permission.
Description: Intensive training program on a specialized topic in Recreation Services. Previously offered as RMTR 3010 and RMRT 3010. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 3212 Lifeguard Training
Description: Theory and practice of water safety and rescue skills essential for lifeguards. May obtain American Red Cross Lifeguard Training Certification. Previously offered as RMTR 3212 and RMRT 3212.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3313 Camp Operations and Programs
Description: Operations and programming for day and resident camps. Includes all camp settings and camper populations. Previously offered as RMTR 3313 and RMRT 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3463 Recreation Program and Event Planning
Prerequisites: RM 2413 and RM 2463.
Description: Emphasis on planning, organization, supervision, promotion and evaluation of recreation programs and special events. Previously offered as RMTR 3463 and RMRT 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3483 Jr. Internship in Recreation Management
Prerequisites: RM 2413 and RM 2463.
Description: Supervised practical experience with leadership responsibilities for planning, leading, and evaluating recreation activities and programs. Graded on pass-fail basis. Previously offered as RMRT 3483.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4010 Directed Studies in Recreation and Athletic Management
Prerequisites: Consent of instructor.
Description: Supervised readings, research or study of trends and issues related to Recreation and Athletic Management. Previously offered as RMRT 4010 and RMTR 4010. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4013 Recreation and a Technologically Advanced Society
Prerequisites: RM 2413 and RM 2463.
Description: Investigate the recreational needs of modern society locally and globally. Consider new methods of recreation participation and communicating recreation information to target populations and devise strategies to implement these methods. Utilize modern tools to incorporate recreation activities into participants' lives. Previously offered as RMRT 4013. May not be used for degree credit with LEIS 5013 or RMRT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4023 Recreation Specialization and Serious Leisure
Prerequisites: RM 2413 and RM 2463.
Description: The Serious Leisure Theory focuses on leisure participation in which a person is highly concentrated on one pursuit. This course investigates the details of the theory, how this theory can be observed in participants, and how to facilitate recreation and leisure programs to fulfill the needs of those engaged in Serious Leisure pursuits. Previously offered as RMRT 4023. May not be used for degree credit with LEIS 5033 or RMRT 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4213 Water Safety Instructorship
Description: Methods of teaching swimming and aquatic safety with practical application of knowledge, principles and analysis of skills. May obtain American Red Cross Water Safety Instructor's Certification (WSI). Previously offered as RMTR 4213 and RMRT 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4433 Evaluation in Recreation Management Services
Description: Methods, techniques and application of the evaluation process related to a wide variety of recreation management functions: participant, programs, personnel, facilities and organization. Previously offered as RMTR 4433 and RMRT 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4453 Outdoor Education and Interpretation
Description: Development of a holistic approach to teaching and learning in the outdoors. Learning in, about, and for, the out-of-doors as a process for acquiring skills with which to enjoy outdoor pursuits. Previously offered as RMTR 4453 and RMRT 4453. May not be used for degree credit with LEIS 5603 or RMRT 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4463 Areas and Facilities in Recreation Management
Prerequisites: RM 3463 or consent of instructor.
Description: Planning, design and development of areas and facilities in recreation service delivery systems. Previously offered as RMTR 4463 an RMRT 4463. May not be used for degree credit with LEIS 5703 or RMRT 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4473 Recreation in the Natural Environment
Description: Theory and practical application of outdoor recreation concepts with emphasis on philosophies, principles, policies, economics, trends and problems. Previously offered as RMTR 4473 and RMRT 4473. May not be used for degree credit with LEIS 5403 or RMRT 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4481 Senior Seminar in Recreation Management
Prerequisites: RMRT major and completion of a minimum of 15 hours of Recreation Management core or Instructor Permission.
Description: Culmination of course work in Recreation Management. Examine professional practices and philosophies. Previously offered as RMTR 4481 and RMRT 4481.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4493 Administration of Recreation Services
Description: Decision-making, problem solving, personnel policies, legal issues, fiscal policies and budget procedures related to the delivery of recreation services. Previously offered as RMTR 4493 and RMRT 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4513 Recreation and Leisure Education
Prerequisites: RM 2463 and RM 3463.
Description: Models of recreation and leisure education discussed and practices in conjunction with enhancing student's ability with basic skills in facilitating optimal recreation pursuits. Previously offered as RMTR 4513 and RMRT 4513. May not be used for degree credit with LEIS 5513 or RMRT 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4553 Tourism in Recreation Settings
Description: Theory and foundations of the philosophy, principles and practices that associate tourism with recreation agencies and settings. Previously offered as RMTR 4553 and RMRT 4553. May not be used for degree credit with LEIS 5553 or RMRT 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4563 Entrepreneurial Recreation Management
Prerequisites: RM 3463 or consent of instructor.
Description: Introduction to the scope, characteristics and management aspects of the commercial recreation industry from an entrepreneurial perspective. Previously offered as RMTR 4563 and RMRT 4563. May not be used for degree credit with LEIS 5563 or RMRT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4683 Administrative Documentation in Internship for Recreation Management
Prerequisites: Last semester senior year with cumulative GPA of 2.5, RM 4481 and co-requisite of RM 4680.
Description: Assignment based course that complements RM 4680 Internship in Recreation Management. Must be taken concurrently with RM 4680. Previously offered as RMTR 4683 and RMRT 4683.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4689 Senior Internship in Recreation and Athletic Management
Prerequisites: Last semester senior year with cumulative GPA of 2.5, RM 4481 and co-requisite of RM 4683.
Description: Supervised field work experience in Recreation and Athletic Management. Graded on a pass-fail basis. Must be taken concurrently with RM 4683. Same course as RM 4680.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4713 Campus Recreation, Intramurals, and Sport
Description: Program operations, industry standards, and current issues surrounding these areas of the recreation industry. May not be used for degree credit with LEIS 5713 or RMRT 5713. Previously offered as RMRT 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4943 Grant Writing and Nonprofit Management
Prerequisites: RM 2413 and RM 2463 or consent of instructor.
Description: Methods and techniques used in grant writing as well as the establishment of a nonprofit agency. Previously offered as RMTR 4943 and RMRT 4943. May not be used for degree credit with LEIS 5943 or RMRT 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Recreational Therapy (RT)

RT 2433 Introduction to Recreational Therapy
Description: Theory and application of recreational therapy with emphasis on types of illnesses and disabilities, delivery systems, programming services. Previously offered as RMTR 2433 and RMRT 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 2443 Contemporary Issues in Diversity (DS)
Description: Exploration of the primary and secondary dimensions of diversity and their impact on society. Individual and institutional responses to cultural diversity. Previously offered as EDUC 2443, LEIS 2443, RMTR 2443, and RMRT 2443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Diversity, Society & Human Behavior

RT 2463 Recreational Therapy Experiential Laboratory
Description: Lecture, discussion, and experiential learning of recreation and recreational therapy activities. Adapted activities, small and large group games, sports, arts and crafts, music, dance, drama, outdoor, aquatics, wellness, and cultural activities are included. Students also learn to determine what activities to select for various target populations. Same course as RM 2463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RT 3110 Workshop in Recreational Therapy
Description: Intensive training program on a specialized topic in recreational therapy. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 3212 Psychomotor Development
Description: Fundamental aspects of motor development for infants, children, youth and adults. Course previously offered as RT 3213, PE 2712 and HHP 2712.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3413 Recreational Therapy and Mental Illness/Intellectual Disabilities
Prerequisites: RT 2433.
Description: The role of Recreational Therapists (RT) working with individuals diagnosed with mental illness and/or intellectual disabilities. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as RMTR 3413 and RMRT 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3423 Recreational Therapy in Geriatric Practices
Prerequisites: RT 2433.
Description: The role of Recreational Therapists (RT) working with the geriatric population. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as RMTR 3423 and RMRT 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3433 Recreational Therapy and Physical Disabilities
Prerequisites: RT 2433.
Description: The role of Recreational Therapists in the rehabilitation of individuals with physical disabilities. Topics include terminology, etiology, prognosis of specific problems, assessment, and program development in RT. Previously offered as RMTR 3433 and RMRT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3441 Warm Water Therapy Lab
Description: This aquatic lab course is designed to give students valuable hands-on experience with participants with disorders ranging from pre-school through senior citizen population. Previously offered as RMTR 3441 and RMRT 3441.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

RT 3443 Assessment in Recreational Therapy
Prerequisites: RT 2433 or Instructor Permission.
Description: Assessments and documentation used in the Recreational Therapy field and including reviewing and practicing with various assessments, writing notes using the various forms of documentation, writing goals and objectives, and combining knowledge and skills in a comprehensive assignment. Previously offered as RMRT 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3473 Medical Terminology and Procedures for Recreational Therapy
Description: The course covers the basic knowledge documentation including vocabulary, abbreviations, symbols, prefixes, and suffixes typically used in clinical settings in which Recreational Therapists practice. Taken concurrently with Junior Internship Courses. Previously offered as RMTR 3473 & RMRT 3473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3483 Junior Internship in Recreation Therapy
Prerequisites: RM 2413, RM 2473, RT 3441, and concurrent enrollment in RT 3473 and one course in emphasis areas of study (Recreational Therapy or Leisure Service Management).
Description: Supervised practical experience (minimum 200 contact hours) with leadership responsibilities for planning, conducting and evaluating activities and programs. Previously offered as RMTR 3480, RMRT 3480 and RT 3480. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 3843 Recreational Therapy Facilitation Techniques & Interventions
Description: Facilitation techniques, leadership, and interventions for the various diagnostic groupings, treatment settings, and individuals seeking assistance from a recreational therapist. Previously offered as RMRT 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4110 Directed Studies in Recreational Therapy
Description: Supervised readings, research or study of trends and issues related to recreational therapy studies. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4443 Recreational Therapy and Child Development
Description: This applied learning course will provide students with the opportunity to utilize the recreational therapy process with young children. Through clinical supervision, students will implement assessment, planning, implementation, evaluation, and documentation of recreational therapy interventions with young children.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4483 Administrative Documentation in Internship for Recreational Therapy
Prerequisites: Last semester senior year with cumulative GPA of 2.5 and RT 3480, RM 4481 and co-requisite of RT 4480.
Description: Assignment based course that complements RT 4480 Internship in recreational therapy. Must be taken concurrently with RT 4480. Previously offered as RMTR 4483 and RMRT 4483.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4489 Senior Internship in Recreational Therapy
Prerequisites: Last semester senior year with cumulative GPA of 2.5 and completion of RT 3483, RM 4481 and co-requisite of RT 4483.
Description: Supervised fieldwork experience in recreational therapy. Graded on a pass-fail basis. Must be taken concurrently with RT 4483. Same course as RT 4480.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4581 Senior Seminar in Recreational Therapy
Prerequisites: RT 2433 or Instructor Permission.
Description: Culminating course work in Recreational Therapy examining current issues, professional practices, and professional philosophy. Previously offered as RMRT 4581.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4833 Recreational Therapy and Pediatrics
Prerequisites: RT 2433 or Instructor Permission.
Description: The role of Recreational Therapists in the treatment of the pediatric population (ages 0-18 years) including terminology, etiology, prognosis of specific problems, assessment, treatment, and program development in recreational therapy. Previously offered as RMRT 4833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4843 Recreational Therapy & Healthcare Administration
Description: Decision making, problem solving, administrative structures, fiscal policies/procedures, and legal issues related to healthcare administration and recreational therapy. Previously offered as RMRT 4843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4933 Advanced Methods In Recreational Therapy
Prerequisites: RM 3483 and consent of instructor.
Description: Theoretical and practical examination of contemporary implementation procedures used in recreational therapy practice. Previously offered as RMTR 4933 and RMRT 4933. May not be used for degree credit with LEIS 5933 or RMRT 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Religious Studies (REL)

REL 1103 Introduction to World Religions (GH)
Description: Major world religions such as Hinduism, Buddhism, Judaism, Christianity and Islam with a view to understanding the general nature of religion and its various dimensions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 2013 The Old Testament and its Study (H)
Description: A study of the Old Testament with emphasis upon content, historical background, the history of its study and the critical analysis and interpretation of selected passages. Previously offered as REL 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2023 The New Testament and Its Study (H)
Description: A study of the writings of the New Testament in their historical contexts and the methods used in their study. Emphasis interpreting selected New Testament passages. Previously offered as REL 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2113 Religion in Film (H)
Description: This course will examine how religious beliefs, practices, experiences and communities have been portrayed in film. Students will explore how film has used allegory, symbolism and other tropes to represent different religious traditions and their systems of beliefs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2213 Ghosts, Gods, and Monsters
Description: Ghosts, Gods and Monsters all have something in common. They are not just an element of a given culture, but is a cipher for, or boundary markers for what is sacred and profane, monstrous and heroic, or life and death. And while all three can be found across history (depending on the lens used), how they are understood and what purposes they serve, changes depending on the time and place.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2313 Religious Violence, Wild Weather, and Ancient Prophecy
Description: This course will introduce students to religions that were in existence during ancient times. The course will focus on religions that have had an impact on cultures that may now be extinct as well as religions that developed into modern systems of belief. Students will read primary sources indigenous to these religions. We will explore aspects of religions that include violence, weather phenomena and mythology and prophetic ideas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2413 Religion and the Body: Sports, Medicine and Sexuality (H)
Description: This course will explore the role of religious beliefs and practices as they relate to sports, medicine and sexuality. Topics will include the cultural influence of religion on sports, religiously-informed debates within the field of medicine, and conceptions of sexuality and gender from the perspective of various Eastern and Western religious traditions. More generally, this course will explore how different world religions view the human body.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2593 Mystics & Skeptics (H)
Description: This course will explore the complex relationship between mysticism, skepticism, and philosophy. Our exploration of these themes will take us into some classic epistemological problems regarding the limits of reason, and the implications of these limitations for religious faith. Other topics include: theological predication, the problem of divine hiddenness, and religious diversity. Same course as PHIL 2593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2743 Religious Perspectives on Food and Agriculture (H)
Description: The goal of this course is to understand the interconnected history of agriculture, food, and religion. We will explore related ancient religions and mythologies, the pastoral roots of many world religions, dietary rules in different religions, as well as contemporary ethical issues as seen through the lens of religion. Previously offered as REL 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3113 Asian Religions (GH)
Description: This course will examine the diverse histories, beliefs, and practices of major Asian religious traditions: Hinduism, Buddhism, Confucianism, Daoism, Shintoism, Shamanism, and modern-day religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3213 Judaism: History, Culture and Beliefs (H)
Description: This course will explore the development of Judaism beginning with its roots in Ancient Israelite religion, the early biblical tradition, and moving through Assyrian and Babylonian conquests, Diaspora, Hellenistic occupation, Roman occupation, Byzantium, the Middle Ages, the Holocaust, the establishment of the state of Israel, up to present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3223 Jesus: Teachings, History and Interpretation (H)
Prerequisites: REL 2023.
Description: This course will examine the teaching of Jesus, the historical context of the first century, and how Jesus' life and teachings have been interpreted through history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3243 Origins of the Christian Church (H)
Prerequisites: REL 2023.
Description: This course will examine the letters of Paul in their historical context, focusing especially on the early Christian communities that were their audience, and how these letters helped shape beliefs and practices before Constantine made Christianity the official religion of Rome.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3313 Islam: History, Culture and Beliefs (GH)
Description: This course will examine the history, culture and beliefs of Islam, from its seventh century origins to modern times.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3413 The Bible and Contemporary Social Issues (H)
Description: This course addresses contemporary social issues through critical engagement with Christian textual and practical traditions. We will critically analyze how various biblical passages influence public discourse, political activity, and personal moral choices on current issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3423 Classic Christian Writings (H)
Description: A study of the primary source material from representative Christian authors scattered throughout two thousand years of church history, focusing on understanding the backgrounds from which the writings emerged, and grasping the writers' key ideas. Course previously offered as REL 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3513 Religious Experience (H)
Description: This course will explore the nature of religious experience and what role it plays within different traditions. Modes of religious experience to be explored range from meditation and prayer to conversion experiences and mystical states of consciousness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion.and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as GWST 3523 and GEOG 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3543 Religion, Race and Social Justice (DH)
Description: This course examines the role of religion in the history and understanding of race, as well as how religion has been leveraged in relation to challenges of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3573 The Religions of Native Americans (DH)
Prerequisites: REL 1103.
Description: Selected tribal worldviews, belief systems and religious ceremonies as depicted in oral traditions, songs, and literature. Emphasis on Northern and Southern Plains Indians.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3613 Global Christianity (GH)
Description: This course examines the varied expressions of the Christian tradition across the world, including Africa, Asia, Europe, the Pacific, the Caribbean, and the Americas. While there are points of continuity within and across Christian communities, we focus our attention on its contemporary international diversity, as communities across the globe interpret and practice the Christian faith as shaped by their varied geographical, historical, social, political, economic and cultural contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3623 Magic, Witchcraft, and the Occult (H)
Description: This course will examine the historical and cultural contexts that have shaped various portrayals of magic and witchcraft. We will consider how the supernatural worldviews underlying these portrayals related to both more traditional religious worldviews as well as the ways in which representations of the supernatural serve as vehicles for a culture's hopes and fears.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3643 Cults, Conspiracies, and Contemporary Religious Movements (H)
Description: This course will examine recent religiously-themed cults and conspiracy theories as well as various new Christian and Non-Christian religious movements in North America, focusing on those that tend to be seen as outside mainline traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3713 Religion, Culture and Society
Prerequisites: REL 1103, ANTH 2353, SOC 1113.
Description: An introduction to the scientific study of religion. Religious activity in both tribal and technological societies studied in the light of contemporary interpretations of culture and of social behavior. Same course as SOC 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4033 Religion in Early America (H)
Description: A study of religious life and its history in early America, beginning with its earliest European settlers, Native Americans, and continuing through the 1800s. Same course as HIST 4633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4050 Studies in Religion
Description: Independent studies, seminars and courses on selected topics in religion. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4113 The World of Islam: Cultural Perspectives (GH)
Description: The cultural heritage of the world of Islam explored through its expression in the art, architecture, and literature of the Muslim peoples.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4213 Understanding Global Islam (GH)
Description: A study of the history of Islam starting from Prophet Muhammad to the spread of the Islamic Empire. How Islam moved from Arabia to the world. Introduction to the Islamic divisions, where they are now, why they are similar and different in terms of laws, schools, countries, literature, sciences, Arabic script, the Shia, the Sunna, and different Islamic countries' practices. Also, debatable issues on Muslim women in American and other countries and why those are different from others.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4223 Religion and Conflict in the Middle East (GH)
Description: This course will explore the religions of the Middle East, focusing on how they have shaped the region's recent history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4330 Seminar in Biblical Studies
Prerequisites: Two courses in Biblical studies.
Description: Selected topics in the academic study of the Bible. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4423 Death and the Afterlife (H)
Description: This course will explore and critically analyze the varying perspectives on death and the afterlife as seen across world religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4513 Literary Art in the Bible
Description: This course will explore literary devices (foreshadowing, allegory, symbolism, etc) and how they are implemented in biblical texts, The Bible will be the primary focus, but comparative texts will be used to build an understanding and recognition of literary devices. We will examine the texts and their history on their own terms, rather than promote a particular religious or non-religious viewpoint. Same course as ENGL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4613 Women in the Bible (H)
Description: This course will examine the stories about and portrayals of women in the Bible. We will explore what the biblical authors have to say about women within their cultural contexts and how these portrayals have shaped how women are seen in Western society. By analyzing the portrayals of women in antiquity, the course will also provide conceptual tools to help students examine how gender has been understood in Western society. Same course as GWST 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4753 Muslim-Christian Relations (H)
Description: Exploration of commonalities and differences between Christianity and Islam, and the history of cooperation and conflict between Muslims and Christians, from Arabia in Muhammad's time to worldwide in the twenty-first century. Themes include mutual understanding and misunderstanding, conversion, rulers and subjects, discrimination, and dialogue. Same course as HIST 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4923 Visions of Apocalypse: Portrayals of the End-Time in World Religions (H)
Description: This course will examine the various portrayals of the Apocalypse from many religious and folklore traditions around the world. This course will also explore various contemporary portrayals of the Apocalypse ranging from malevolent emergent artificial intelligence to the zombie virus.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

Research (RES)

RES 5013 Principles of Writing and Evaluating Scientific Research
Description: Fundamentals of effective scientific writing. Instruction focuses on the process of writing and publishing scientific manuscripts as well as reviewing scientific research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

RES 5033 Clinical Trials
Description: Fundamentals of clinical trials, including design, conduct, analysis and interpretation fo trial results. Topics will include commonly used designs, methods for randomization, blinding and sample size determination, choice of controls, collaborative/multicenter trial requirements and operational issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

RES 5052 Grant Writing
Description: Expertise to prepare, write and submit a research grant proposal. This course will assist in identifying relevant resources in order to find funding sources.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

RES 5063 Meta-Analysis and Systematic Reviews
Description: Study selection and quality assessment, effect size estimates and conversions, handling publication bias, fixed and random effects models, heterogeneity of effects, analysis of meta-analytic data, data presentation, and use of meta-analysis software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

RES 5073 Research Compliance
Description: Fundamentals of all areas of clinical research and research compliance including clinical trials, human subject research, environmental health and safety, and other areas of research compliance administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Care Administration

Research, Evaluation, Measurement & Statistics (REMS)

REMS 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5013 Research Design and Methodology
Description: An introduction to the concepts of research design, methodology, sampling techniques, and internal/external validity and the scientific method in educational problem solving. Critical analysis of educational research studies and the writing of proposals. Previously offered as ABSE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5320 Seminar in Research, Evaluation, Measurement and Statistics
Prerequisites: Consent of instructor.
Description: In-depth exploration of contemporary problems of research, evaluation, measurement, and statistics. Previously offered as ABSE 5320. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5330 Practicum in REMS
Description: Apply skills and concepts of educational research, evaluation, measurement and statistics (REMS) and gain professional experience in a mentored applied setting. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5373 Educational Measurements
Description: Appropriate applications of tests in the schools. Development of teacher-made tests, selection of standardized tests, interpretation of test results, understanding of the statistics reported in testing literature, uses of test results, and recent developments in educational measurement. Previously offered as ABSE 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5953 Statistical Methods in Education
Description: Statistical methods needed by conductors and consumers of research in education and the behavioral sciences. Introduction to interpretation and application of descriptive and inferential statistics. Previously offered as ABSE 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5963 Computer Applications in Nonparametric Data Analyses
Description: Presents popular nonparametric statistical methods as applied to educational and behavioral research. Emphasis on conceptual, rather than mathematical development, application, use of computer for data analysis, and substantive interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Required of all candidates for doctorate in applied behavioral studies. Credit given upon completion and acceptance of dissertation. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 6003 Analyses of Variance
Prerequisites: Previous completion of both a graduate level introductory statistics course and research methods course are highly recommended.
Description: A thorough examination of analysis of variance procedures as they relate to principles of experimental design in education and behavioral sciences utilizing SPSS. Previously offered as ABSE 6003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6013 Multiple Regression Analysis in Behavioral Studies
Prerequisites: REMS 6003 or consent of instructor.
Description: Applications of multiple regression as a general data analysis strategy for experimental and non-experimental research in behavioral sciences. Previously offered as ABSE 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6023 Psychometric Theory
Prerequisites: REMS 6013 or consent of instructor.
Description: Theoretical basis for applying psychometric concepts to educational and psychological measurement. The Classical True Score model and applications to instrument development and design of studies for evaluating instrument quality. Previously offered as ABSE 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6033 Factor Analysis in Behavioral Research
Prerequisites: REMS 6013 or equivalent.
Description: In-depth analysis of principal components and factor analysis methods, including maximum likelihood methods. Confirmatory factor analysis methods are also introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6320 Doctoral Seminar in REMS
Prerequisites: Permission of instructor.
Description: Theory and applications of selected advanced research and evaluation methods. Previously offered as REMS 6323. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 6373 Program Evaluation
Prerequisites: REMS 5013 and admission to a doctoral level program or consent of instructor.
Description: History, contexts, purposes and approaches of evaluating programs in a variety of settings. Emphasis on logic models and evaluation planning, design, data collection, analysis, reporting, and use of results. Applications include writing an evaluation plan for a real-world program. Previously offered as ABSE 6373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6383 Program Evaluation II
Prerequisites: REMS 6373.
Description: Builds upon students' knowledge, understanding and application of program evaluation approaches and techniques. Emphasis on practical application of knowledge and standards by conducting a program evaluation for an existing program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6663 Applied Multivariate Research in Behavioral Studies
Prerequisites: REMS 6013 or consent of instructor.
Description: An overview and analysis of multivariate procedures commonly applied to educational and behavioral research. Emphasis on conceptual design and application of these procedures. Previously offered as ABSE 6663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6673 Item Response Theory
Prerequisites: REMS 6003 and REMS 6023 or consent of instructor.
Description: Concepts, theory, and application of item response theory (IRT) in educational and psychological fields with computer applications for data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6683 Multilevel Modeling Methods in Education
Prerequisites: REMS 5953, REMS 6003, REMS 6013 or consent of instructor.
Description: Multilevel modeling analyses relevant to research in educational and related sciences. Emphasis on practical, hands-on development, analysis, and interpretation of multilevel models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6693 Structural Equation Modeling for Behavioral and Educational Research
Prerequisites: REMS 6003, REMS 6013, REMS 6033, and REMS 6663 or permission of instructor.
Description: Concepts, theory, and application of SEM in behavioral research with computer applications for data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Russian (RUSS)

RUSS 1713 Elementary Russian I (F)
Description: Understanding, speaking, reading, and writing. Method of instruction is audio-lingual. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 1813 Elementary Russian II (F)
Prerequisites: RUSS 1713 or equivalent proficiency.
Description: Continuation of RUSS 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 2713 Intermediate Russian I (F)
Prerequisites: RUSS 1813 or equivalent proficiency.
Description: Russian grammar, composition and conversation. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 2813 Intermediate Russian II
Prerequisites: RUSS 2713 or equivalent proficiency.
Description: Continuation of RUSS 2713. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 2225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 3113 Russian Conversation
Prerequisites: RUSS 2813 or equivalent proficiency.
Description: Development of conversational skills in formal and informal Russian language; study of oral communication and idioms; vocabulary enhancement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 3223 Russian Composition
Prerequisites: RUSS 2813 or equivalent proficiency.
Description: The development of all forms of written communication in Russian through practice in writing compositions, letters, reports, and other documents in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4013 Survey of Russian Literature I
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Survey of Russian literature from its beginning to late nineteenth century with readings in Russian of representative texts. Course conducted in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4023 Survey of Russian Literature II
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Survey of Russian literature from late nineteenth century to post-Soviet era with readings in Russian of representative texts. Course conducted in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4123 Russian Literature in Translation II
Description: Russian and Soviet literature from mid-19th century to present: Tolstoy, Chekhov, Gorky, Zamiatin, Sholokhov, Pasternak, Bunin, Solzhenitsyn, Arzhak (Daniel), Tertz (Sinyavsky), Voznesensky, and Evtushenko. Readings in English. Classes conducted in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4223 Russian Reading Skills
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Acquisition of skills in vocabulary enrichment, stylistic analysis and advanced proficiency in reading various styles of contemporary written Russian (newspaper, political, business).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

School Psychology (SPSY)

SPSY 3423 Psychology of Learning Disorders: Characteristics, Identification, and Procedures in Public Schools
Description: Introduces evidence-based psychological and educational approaches to examining the characteristics, identification, and intervention of children with specific learning disorders. Includes typical procedures and problems teachers encounter in the public schools in a multi-disciplinary context and within a Multi-tiered System of Student Support framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 3433 Disruptive Behavior in Public Schools: ADHD and ODD
Description: Introduction to evidence-based psychological and educational approaches to identify characteristics of and interventions for children with disruptive behavior, particularly children with ADHD and ODD.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 3513 Behavior Management for Teachers of Diverse Learners
Description: Comprehensive and practical introduction to classroom management for diverse learners. Avoidance of behavioral problems through planning, organization and class management; group management procedures to promote positive learning environments, individualized management for specific behavior problems are addressed. Previously offered as EPSY 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 3523 Public School Support Specialist for Children At-Risk
Description: Focus on innovative practices, assessments, treatments, and prevention of academic and behavioral skill deficits. Students will develop skills in the areas of academic assessment, differentiated instructional techniques, intervention/treatment of learning problems, and the use of data to drive instructional decisions for enhancing student outcomes. Previously offered as EPSY 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 4513 Prevention and Intervention for Violent Incidents and Emergencies in School Settings
Description: The literature and best practices for prevention and intervention for violent incidents and emergencies in school settings. Previously offered as EPSY 4513. May not be used for degree credit with SPSY 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5000 Master's Thesis
Prerequisites: Consent of Master's committee advisor or chair.
Description: Research in School Psychology for Masters students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5023 Introduction to School Psychology
Prerequisites: Admission to school psychology Ph.D. or Ed.S. Program or consent of instructor.
Description: History, role, function, and contemporary issues and problems for the school psychologist in a culturally diverse society. Course previously offered as ABSE 5023 and EPSY 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5110 Observation and Participation Field Experience for School Psychology Majors
Description: Roles and functions of school personnel, operation and procedures in public schools for school psychology majors. School observation/participation required. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lab: 2-12 Contact: 2-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

SPSY 5113 Developmental Psychopathology
Prerequisites: EPSY 5103 or SPSY 5103 or equivalent; enrolled in school psychology, counseling psychology or clinical psychology program or consent of instructor.
Description: Examination of theoretical, conceptual, and empirical issues related to psychopathology in children, adolescents, and young adults. Course previously offered as EPSY 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5210 Introductory Practicum in School Psychology
Prerequisites: Good standing in School Psychology Program and consent of instructor.
Description: Exposure to roles and functions of school psychologists in public schools; supervised experience of skill development in the application of beginning fundamental school psychology services; shadowing of a broad and more complex range of psychological service delivery activities. Introduction to science-based child/learner success orientation and professional identity of school psychologists. Course previously offered as ABSE 5210 and EPSY 5210. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5310 Practicum in Child and Adolescent Therapy
Prerequisites: Good standing in school psychology program, SPSY 6033 or equivalent, and consent of instructor.
Description: Supervised therapy experience with children, adolescents, and their parents for students in school psychology. Course previously offered as EPSY 5310. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5320 Seminar in School Psychology
Description: Examination and analysis of current issues related to school psychology. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5503 Crisis Intervention and Emergency Action in School Settings
Description: Current models for crisis intervention and emergency actions plans in school settings. Preparation for crisis intervention and experience in evaluating crisis and emergency action plans in schools. Previously offered as EPSY 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5510 Advanced Practicum in School Psychology
Prerequisites: Good standing in school psychology program, SPSY 5210, and consent of instructor.
Description: Supervised experience in the delivery of a broad and complex range of psychological service delivery activities for school psychologists in public schools. Skill development in the application of assessment, consultation, direct interventions and use of data to inform educational decisions. Refinement of science-based child/learner success orientation and professional identify of school psychologists. Course previously offered as ABSE 5510 and EPSY 5510. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5513 Prevention and Intervention for Violent Incidents and Emergencies in School Settings
Description: The literature and best practices for prevention and intervention for violent incidents and emergencies in school settings. May not be used for degree credit with SPSY 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5720 Workshop in School Psychology
Prerequisites: Consent of instructor.
Description: Workshop on various topics in school psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 5753 Psycho-educational Assessment of Pre-School
Prerequisites: Admission to school psychology program Ph.D. or Ed.S. program or permission of instructor.
Description: Relevant issues and challenges associated with the intellectual, social and behavioral assessment of preschool children from the vantage point of recent research, discourse and policy initiatives. This course provides the link between assessment and intervention. Course previously offered as ABSE 5753 and EPSY 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5783 Psycho-educational Assessment of Exceptional Individuals
Prerequisites: Admission to school psychology, counseling psychology, or counseling programs or permission of instructor.
Description: Best practices in assessment, administration, and interpretation of individual tests and assessments appropriate for exceptional individuals. Training and preparation in selection, administration and interpretation of select individual tests. Course previously offered as ABSE 5783 and EPSY 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5793 Individual Intellectual Assessment of Children and Youth
Prerequisites: Good standing in School Psychology or counseling psychology program, or consent of instructor.
Description: Intensive study of the Wechsler Scales and other selected tests of mental ability. Emphasis and practice in administration, scoring, interpretation. Issues related to report writing and non-discriminatory assessment. Course previously offered as EPSY 5793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5803 Advanced Cognitive Assessment and Theory
Prerequisites: SPSY 5793 or equivalent, good standing in School Psychology or Counseling Psychology program or permission of instructor.
Description: Examination and practice of contemporary intellectual theory with emphasis on Cattel-Horn-Carroll and nondiscriminatory cognitive assessment. Course previously offered as EPSY 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5813 Parent and Family Intervention in School Psychology
Prerequisites: SPSY 5113.
Description: Empirically-supported, parent-implemented interventions for children and adolescents addressing a variety of home and school problems within the discipline of school psychology. Previously offered as EPSY 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5853 Applied Behavior Analysis
Description: Intensive study of behavior and analytical principles as they relate to the functional assessment and intervention development with an emphasis on developmental issues. Fundamental theoretical and philosophical issues, procedures and findings within applied behavior analysis in educational and related psychology specialties. Previously offered as EPSY 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 5873 Applied Behavior Analysis II
Prerequisites: EPSY 5853 or SPSY 5853.
Description: A continuation of ABA I covering the Principles of Behavior Analysis as it is applied to school, agency and home settings with an emphasis on school based concerns. Systematic assessment of behavior, intervention development, implementation and evaluation as well as the integration of these components into a single model of consultation. Previously offered as EPSY 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6000 Doctoral Dissertation
Prerequisites: Consent of PhD committee advisor or chair.
Description: Research in School Psychology for Doctoral students. Offered for variable credit, 1-12 credit hours, maximum of 25 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 6030 Ethics and Law in School Psychology
Prerequisites: Good standing in school psychology PhD program and consent of instructor.
Description: Ethical and legal standards relevant for psychologists including their application in schools and other settings for the practice of psychology. Previously offered as EPSY 6030. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6033 Introduction to Psychotherapy with Children and Adolescents
Prerequisites: EPSY 5113 or SPSY 5113.
Description: Development of individual and group skills in therapy with children and adolescents. Applications of theories of psychotherapy to a variety of disorders and coping skills, crisis intervention and adaptive social skills training. Previously offered as EPSY 6033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6113 Behavioral and Personality Assessment of Children and Youth
Prerequisites: SPSY 5793 or consent of instructor.
Description: Psychological assessment of social, emotional, behavioral, and personality functioning of children, youth, and young adults with major emphasis on childhood disorders. Course previously offered as ABSE 6113 and EPSY 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6143 Introduction to Developmental Psychopharmacology
Prerequisites: EPSY 5103 or SPSY 5113 or equivalent; admission to School Psychology; Counseling Psychology or Counseling program, or consent of instructor.
Description: Introduction to biological basis of behavior and behavior disorders. Review of the biological systems associated with psychopharmacological treatments. Major drug classes and their role in the treatment of developmental psychopathology. Previously offered as EPSY 6143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6153 Advanced Research in School Psychology
Prerequisites: Good standing in school psychology PhD program and permission of instructor.
Description: Examination of research designs used within the social sciences with particular emphasis in the context of School Psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6210 Specialist Internship in School Psychology
Prerequisites: Good standing in school psychology Ed.S., program, completion of all coursework, passed comprehensive exam, and consent of school psychology faculty.
Description: Supervised capstone field experience in the public schools for specialist-level (EdS.) school psychology graduate students by certified school psychologists, or nationally certified school psychologists, or licensed health service psychologists for a maximum of 1200 hours over the course of an academic year, or half-time over the course of 2 academic years. Previously offered as EPSY 6210. Offered for variable credit, 3-12 credit hours, maximum of 12 credit hours.
Credit hours: 3-12
Contact hours: Contact: 3-12 Other: 3-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 6253 Single Case Designs in Behavior Analytic Settings
Prerequisites: Permission of Instructor or Admission into School Psychology Program.
Description: Use of single case designs in behavior analytic settings to validate treatments to increase pro-social behaviors. This includes multiple baseline, multi-element, alternating treatment, and reversal designs. Previously offered as EPSY 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6310 Doctoral Practicum in School Psychology
Prerequisites: Good standing in school psychology PhD program and consent of instructor.
Description: Supervised experience in the delivery of a range of advanced psychological service delivery activities for doctoral students in school psychology in various settings. Refinement and further development of skills in assessment, consultation, intervention/therapy and supervision. Previously offered as EPSY 6310. Offered for variable credit, 2-10 credit hours, maximum of 10 credit hours.
Credit hours: 2-10
Contact hours: Contact: 2-10 Other: 2-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 6313 Advanced Interventions for Increased Academic Achievement
Prerequisites: SPSY 5113.
Description: Advanced intervention design with an emphasis on using behavior analytic approaches to increase achievement in reading, math, and written expression. Previously offered as EPSY 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6333 Instructional Assessment and Consultation
Prerequisites: SPSY 5113 or equivalent. Admission to school psychology or special education programs, or consent of instructor.
Description: Development of skills in consulting with educational personnel and families regarding academic and educational functioning. Systematic curriculum-based assessment and measurement techniques as well as planning, implementing, and evaluating instructional interventions. Evaluation of the instructional environment. Previously offered as EPSY 6333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6343 Behavioral Assessment and Consultation
Prerequisites: SPSY 5113 or equivalent; admission to school psychology, clinical psychology or counseling psychology program; or consent of instructor.
Description: Development of psychological skills in systematic behavioral assessment and consultation with application to school, agency and home settings. Systematic behavioral observation, data collection and intervention design, implementation and evaluation. Previously offered as EPSY 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPSY 6610 Doctoral Internship in School Psychology
Prerequisites: Good standing in school psychology PhD program, completion of all coursework, comprehensive exams passed, dissertation proposed, and consent of SPSY faculty.
Description: The capstone field experience for doctoral-level (PhD) school psychology graduate students. Interns are supervised by licensed psychologists as part of the final preparation to begin a career as a professional psychologist with a specialization in school psychology. Previously offered as EPSY 6610. Offered for variable credit, 2-10 credit hours, maximum of 10 credit hours.
Credit hours: 2-10
Contact hours: Contact: 2-10 Other: 2-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPSY 6850 Directed Readings in School Psychology
Prerequisites: Consent of instructor.
Description: Directed readings for students in advanced standing in the school psychology program. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

Science & Math Education (SMED)

SMED 1012 Inquiry Approaches to Teaching
Prerequisites: Interest in exploring teaching as a career.
Description: Master teachers introduce students to examples of high-quality inquiry-based lessons and model the educational concepts to which they are being introduced. Students prepare and participate in the teaching of multiple lessons in elementary classrooms. Previously offered as SMED 1011.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

SMED 1103 Teaching Science through Standards-Based Practices: Earth and Space Science
Description: Explores pedagogical strategies for the teaching and learning of Earth and space science systems. Students develop pedagogical content knowledge and will demonstrate a deep understanding of active investigations in the principles of Earth and space science systems. Course focuses on best pedagogical practices, formative assessments, and common student misconceptions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 2011 Inquiry-Based Lesson Design-Step 2
Prerequisites: SMED 1011 and an interest in exploring teaching as a career.
Description: Master teachers introduce students to examples of high-quality inquiry-based lessons and model the educational concepts to which they are being introduced. In Step 2, students prepare and participate in the teaching of three (3) lessons in middle school classrooms.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

SMED 2100 Seminar in Mathematics Education
Description: This course provides students with exposure to topics of interest in the Mathematics Education field. Seminar topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2153 Teaching Algebra, Data and Probability Across the Elementary Curriculum
Description: Explores underlying concepts and pedagogical strategies for teaching algebra, data, and probability. Best pedagogical practices, formative assessment and common student misconceptions will be focused around all topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2200 Seminar in Science Education
Description: This course provides students with exposure to topics of interest in the Science Education field. Seminar topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2352 Nature Journaling: Standards-Based Science in the Outdoors
Description: Nature journaling involves blending science with art to better understand the natural world through the regular recording of observations, perceptions, patterns, and questions about the natural world. Topics cover a range of scientific background to prepare for teaching grades PreK-8. Course consists of field studies, readings, tutorials, and individual journaling. Best pedagogical practices, common student misconceptions, and the nature of science will be a focus within each topic.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3013 Knowing and Learning in K-12 Education
Description: Expands the prospective teacher's understanding of current theories of learning and conceptual development. Students examine their own assumptions about learning and critically examine the needs of a diverse student population in the classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3100 Workshop In Mathematics Education
Description: This course provides students with exposure to a specific topic of interest in the Mathematics Education field. Workshop topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3153 Teaching Mathematics at the Primary Level
Prerequisites: Grade of “C” or better in: MATH 3603; six hours from MATH 1483, MATH 1493, MATH 1513, MATH 1613, MATH 2103, MATH 2144, SMED 2153 or STAT 2013; consent of instructor.
Description: Developmental levels in selection and organization of content and procedures for primary mathematics education. Same course as CIED 3153. Cannot be used for degree credit with SMED 5013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 3200 Workshop in Science Education
Description: This course provides students with exposure to a specific topic of interest in the Science Education field. Workshop topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4003 Teaching Fundamental Concepts of Mathematics
Prerequisites: Full admission to Professional Education.
Description: Teaching of the basic skill areas. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken concurrently with public school practicum experiences. Course previously offered as CIED 4003. May not be used for degree credit with SMED 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4013 Classroom Interactions
Prerequisites: SMED 1011, SMED 2011, SMED 3013
Description: A close examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep conceptual understanding. Students will learn how content and pedagogy combine to create effective teaching.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4023 Advanced Field Placement in Mathematics and Science
Prerequisites: SMED 1011, SMED 2011, SMED 3013, SMED 4013, CIED 4613 or CIED 4003, and full admission to Professional Education.
Description: Explores authentic, important, and meaningful questions of real concern to students. Students will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

SMED 4053 Teaching Geometry in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Overview of the present secondary geometry curricula and future trends. Axiomatic development of Euclidean geometry, proofs and transformational geometry from the perspective of the secondary mathematics teachers. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken after or concurrently with MATH 4403. Course previously offered as CIED 4053. May not be used for degree credit with SMED 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4153 Teaching Mathematics at the Intermediate Level
Prerequisites: SMED 3153 or SMED 5013 (for Graduate Students) and MATH 3403 and MATH 3603, full admission to Professional Education.
Description: Selection and organization of content, procedures for instruction, and evaluation of outcomes in teaching the mathematics of the intermediate grades. Some attention to instruction in upper grades of the elementary school. Course previously offered as CIED 4153. May not be used for degree credit with SMED 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4353 Science in the Elementary School Curriculum
Prerequisites: Completion of 12 hours with a grade of "C" or better in required science courses and be fully admitted to Professional Education.
Description: The purposes, selection and organization of content, teaching and learning procedures and evaluation of outcomes in elementary school science. Course previously offered as CIED 4353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4560 Environmental Education
Description: Development of (teacher/leader) competencies in the content, methods, philosophy, and historical perspective of contemporary environmental education curricula using both indoor and outdoor settings as a multidisciplinary learning laboratory. Same course as CIED 5730. Course previously offered as CIED 4560. May not be used for degree credit with SMED 5560. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4611 Authentic Research in the Science Classroom
Prerequisites: SMED 1011; SMED 2011; SMED 3013; SMED 4013; and concurrent enrollment in SMED 4613.
Description: This course is designed to strengthen pre-service science teachers' understanding of how scientific knowledge is generated by engaging in an authentic research experience under the mentorship of a STEM mentor. Students will also learn how to write a scientific manuscript.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

SMED 4613 Teaching the Nature of Science Through an Inquiry Approach
Prerequisites: Full admission to professional education.
Description: This course is designed to assist pre-service science teachers in developing skills to teach science through an inquiry approach. Guided readings, discussions, group activities, and classroom field experiences, will focus on strengthening views on the nature of science. Course previously offered as CIED 4613. May not be used for degree credit with SMED 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4713 Teaching and Learning Science in the Secondary School
Prerequisites: CIED 4613, and full admission to Professional Education.
Description: Assists students in developing safe classroom practices, science curriculum, and educational assessments supported by teaching and learning theories. Weekly classroom field experiences are required. Must be taken the semester prior to student teaching/internship. May not be used for degree credit with SMED 5713.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4723 Senior Seminar in Secondary Mathematics and Science Education
Prerequisites: SMED 1011, SMED 2011, SMED 3013, SMED 4013, SMED 4023, CIED 4613 or CIED 4003, and CIED 4713 or CIED 4053, and full admission to Professional Education.
Description: Explores classroom management and discipline approaches as well as teacher research, parental involvement, school climate and community relations. May not be used for degree credit with SMED 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4813 Yellowstone Science for Educators (N)
Description: Explore the science of the Greater Yellowstone Area (GYA). This course focuses on the systematic study of natural processes and mechanisms associated with the GYA. Emphasis is placed on the biological and physical (chemistry, earth, and physic) science concepts that have formed the parks that exist today. Consequences of human intervention are addressed. Applications of science content to K-12 classroom curricula are addressed. Required field trip to the GYA.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science
General Education and other Course Attributes: Natural Science Reasoning

SMED 5003 Teaching Fundamental Concepts of Mathematics
Prerequisites: Full admission to Professional Education.
Description: Teaching of the basic skill areas. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken concurrently with public school practicum experiences. May not be used for degree credit with SMED 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5013 Mathematics Education: Theory and Practice(Grade 1-4)
Description: Curriculum, materials, methods, and procedures related to the theory and practices of teaching mathematics in grades 1-4. Meets with SMED 3153. No degree credit for those with credit in SMED 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5050 Seminar in Integrated Mathematics and Science Applications
Description: Seminar topics may differ depending upon the nature of current interests and topics in mathematics and science education. Course previously offered as CIED 5050. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5053 Teaching Geometry in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Overview of the present secondary geometry curricula and future trends. Axiomatic development of Euclidean geometry, proofs and transformational geometry from the perspective of the secondary mathematics teachers. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken after or concurrently with MATH 4403. May not be used for degree credit with SMED 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5083 Teaching Science in the Elementary School (Grades 1-8)
Description: Curriculum, materials, methods, and procedures related to the theory and practice of science teaching in grades 1-8. Course previously offered as CIED 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5103 Teaching Mathematics at the Intermediate Level
Description: Selection and organization of content procedures for instruction, and evaluation of outcomes in teaching the mathematics of the intermediate grades. Some attention to instruction in upper grades of the elementary school. May not be used for degree credit with SMED 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5113 Knowing and Learning in Mathematics and Science
Prerequisites: Admission to MAT program or consent of instructor.
Description: Expands the prospective teacher's understanding of current theories of learning and conceptual development. Students examine their own assumptions about learning and what it means to teach. They critically examine the needs of a diverse student population in the classroom. Meets with SMED 3013. No degree credit for those with credit in SMED 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5123 Classroom Interactions in Mathematics and Science
Prerequisites: SMED 5113 and Admission to MAT program or consent of instructor.
Description: A close examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep conceptual understanding. Students will learn how content and pedagogy combine to make effective teaching. Includes a school-based field experience. Meets with SMED 4013. No degree credit for those with credit in SMED 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5133 Problem-Based Learning in Mathematics and Science
Prerequisites: SMED 5113 and Admission to MAT program or consent of instructor.
Description: Explores authentic, important, and meaningful questions of real concern to students. Students will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. Includes a school-based field experience. Meets with SMED 4023. No degree credit for those with credit in SMED 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5143 Methods for Teaching Secondary Science
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in secondary school science. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Secondary Education Graduate Certificate Program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5153 Methods for Teaching Secondary Math
Prerequisites: Admission into the Graduate Certificate for Effective Teaching in the Secondary Schools program or permission of instructor.
Description: Examines current trends and issues in secondary school mathematics. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in the Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5183 Social Justice by the Numbers: Learning to Teach Science & Math for Understanding & Equity
Description: This course explores principles of social justice in education as a lens for rethinking school mathematics and science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5193 Inquiry and Problem-Based Learning in Science Education
Prerequisites: Completion of Bachelor's degree.
Description: Different aspects of teaching science through inquiry methods. Using current research as a guide, students will define scientific inquiry teaching and learning, explore assessing inquiry, and evaluate the roles of students, teachers, and discourse in the science classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5203 Teaching the Nature of Science Through and Inquiry Approach
Prerequisites: Full admission to professional education.
Description: This course is designed to assist pre-service science teachers in developing skills to teach science through an inquiry approach. Guided readings, discussions, group activities, and classroom field experiences, will focus on strengthening views on the nature of science. May not be used for degree credit with SMED 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5223 Teaching Science in the Schools
Description: Materials, methods and classroom procedures related to science in grades K-12. Course previously offered as CIED 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5243 Environmental Education in the Curriculum
Description: Integration of environmental concepts in the total school curriculum. Review of P-12 environmental education curricula and methods of teaching environmental education in formal and nonformal settings. Course previously offered as CIED 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5253 Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on teaching rational number concepts and developing proportional reasoning skills; attention given to learning methods which facilitate appropriate classroom interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5263 Assessment and Evaluation in School Mathematics
Description: Focus on classroom assessment to help teachers identify what students know about critical mathematics concepts, skills, procedures, and facts. Emphasis would be on using that information to inform their instructional decisions and enhance student learning. Course previously offered as CIED 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5270 Practicum in School Mathematics
Description: Diagnostic and therapeutic procedures in mathematics with students of all ages. Laboratory classes provide for clinical experiences in evaluation and instruction with children experiencing difficulty in mathematics. Course previously offered as CIED 5270. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SMED 5273 Number Concepts and Assessment at the Elementary Level (PK-6)
Description: Analysis and construction of effective mathematical tasks in teaching number systems and operations at the PK-6 level; attention is also given to the expansion of content knowledge and issues related to assessment. Course previously offered as CIED 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5280 Workshop in Science Education
Description: Explores topics in science education, including developing, and/or implementing elementary and/or secondary science programming. Course previously offered as CIED 5280. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Lecture: 1-8 Contact: 1-8
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5283 Inquiry Teaching and Learning in Science and Mathematics Education
Description: Focus on different aspects of an inquiry learning environment in K-12 science and mathematics. Using current research as a guide, students will examine the structure of inquiry lessons, the roles of students and teachers, and classroom decision making that supports inquiry. Course previously offered as CIED 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5293 Teaching and Learning Mathematics in Technology
Description: The focus of this course is on research and methods of teaching and learning with technology in the mathematics classroom. Topics will include philosophical, social, developmental and theoretical issues associated with the development and use of technology and school reform. Activities and applications will be explored as they relate to the potential for providing a technology-rich learning environment conducive to student construction of mathematical knowledge. Course previously offered as CIED 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5313 Introduction to K-12 Engineering Education
Prerequisites: Completion of a Bachelors Degree.
Description: Involves the study of engineering education topics within the K-12 setting, which includes exploring current related literature as well as the implementation of the engineering design process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5323 Technology for the K-12 STEM Educator
Prerequisites: Completion of a Bachelor's Degree.
Description: Survey of current innovative technologies for K-12 STEM classrooms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5333 Developing Informal and Formal STEM Programs in Schools
Prerequisites: Completion of a Bachelor's Degree.
Description: Examines the areas of Science, Technology, Engineering, and Mathematics (STEM) that relate to curriculum development, instruction practices and leadership integration in schools and districts. Students will gain knowledge and skills to support STEM infusion throughout formal and informal environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5560 Environmental Education
Description: Development of (teacher/leader) competencies in the content, methods, philosophy, and historical perspective of contemporary environmental education curricula using both indoor and outdoor settings as a multidisciplinary learning laboratory. May not be used for degree credit with SMED 4560. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5613 Effective Teaching of Mathematics in the Secondary School
Prerequisites: Consent of instructor.
Description: Directed advanced practicum in secondary school mathematical education. Includes study of current research findings in mathematical education, teaching strategies, materials and evaluation procedures in the secondary school. For experienced classroom teachers, superintendents, principals and supervisors. Course previously offered as CIED 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5713 Teaching and Learning Science in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: This course is designed to assist preservice science teachers in developing skills to teach science through an inquiry approach. The three components of science literacy: science content knowledge, practices of science, and nature of science are taught throughout the lens of a mentored science research apprenticeship. May not be used for degree credit with SMED 4713.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 5723 Senior Seminar in the Secondary Mathematics and Science Education
Description: Explores classroom management and discipline approaches as well as teacher research, parental involvement, school climate and community relations. May not be used for degree credit with SMED 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5750 Seminar in Mathematics Education
Prerequisites: Consent of instructor.
Description: Problems, issues and trends in mathematics education. Course previously offered as CIED 5750. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5813 Assessment in Science Education
Prerequisites: Completion of a Bachelor's degree.
Description: Guided readings, discussions, and group activities focus on strengthening students' understanding of state and national assessments in science education. Previously offered as SMED 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5913 Teaching Geometry and Spatial Visualization
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on the development of geometric concepts and spatial visualization. Attention given to the understanding of learning trajectories and their role in student learning. Course previously offered as CIED 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5923 Teaching Algebra and Mathematical Tasks
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on algebra concepts of functional thinking and generalized arithmetic. Attention will be given to the analysis and construction of effective mathematical tasks in the teaching of algebra. Course previously offered as CIED 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5933 Teaching Data and Probability in Schools
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on statistical literacy and the teaching of PK-12 data and probability concepts; emphasis on the use of instructional technology to enhance student learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5943 Mathematics Leadership and Coaching
Prerequisites: Completion of a Bachelor's degree and nine hours from SMED 5253, SMED 5273, SMED 5913, SMED 5923, and SMED 5933.
Description: Develops skills and knowledge for school mathematics program design and leadership, and for coaching other teaching professionals in mathematics teaching. Course previously offered as CIED 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6123 Teaching the Nature of Science in Secondary Science Education
Prerequisites: Successful completion of a bachelor's degree.
Description: Guided readings, discussions, and group activities focus on strengthening views on the nature of science. Course previously offered as CIED 6123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6223 Instruction and Learning in Science and Mathematics Education
Prerequisites: Acceptance into a doctoral program.
Description: Focus on learning and teaching in science and mathematics education contexts. Students will analyze and synthesize research in science and mathematics education that are related to the learning sciences. Course previously offered as CIED 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6233 Affective Issues in Teaching Mathematics and Sciences
Prerequisites: Bachelor's Degree
Description: Explores current affective issues that influence the teaching and learning of mathematics and science. Students will explore topics such as beliefs, attitudes, emotions, motivation, efficacy, identity, and anxiety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6753 Research in Mathematics and Science Education
Description: The examination of current research in mathematics and science teaching and learning, research designs, and the generation of new hypotheses. Course previously offered as CIED 6750 and SMED 6750.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

Social Foundations (SCFD)

SCFD 2003 Religious Diversity & Education (D)
Description: Explores philosophical and practical questions relating to the role of religion in education in culturally diverse democracies, relevant school law and policy, and instructional and curricular challenges faced by teachers and school leaders. Previously offered as SCFD 2001.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

SCFD 2333 Cineculture: International Issues (GS)
Description: Using documentary film, examines international issues relating to broader topics of race/ethnicity, gender, class, sexuality, (dis)ability, etc., through scholarship from the field of social foundations of education (history, philosophy, sociology, and anthropology). Previously offered as SCFD 2331.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SCFD 3223 Role of Teacher in American Schools (D)
Description: An introduction for those students wishing to pursue the teaching profession. An overview of teaching and policy in American schools and background in history, theory, and philosophy of education. Topics to be addressed include: diversity in schools; school governance; funding and organization; ethics and professionalism; curriculum; legal issues; pedagogy and current issues in education. Previously offered as CIED 3223 and CIED 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

SCFD 4123 History of Education (S)
Description: The development of major educational ideas and programs with emphasis on the growth of public education in the United States from the Colonial period to the present. Previously offered as CIED 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Society & Human Behavior

SCFD 4320 Special Topics in Social Foundations
Description: Focused exploration of a contemporary problem or issue in social foundations. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 4913 International Issues and the Role of the School
Description: International issues that shape educational perspectives and practices locally and globally. Consideration of major issues in education, such as the effects of globalization, the purpose of and right to an education, gender, indigenous knowledge, and global citizenship. Previously offered as CIED 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5000 Master's Report or Thesis
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report, or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5020 Master's Final Project
Prerequisites: Instructor approval.
Description: For students to complete the creative Master's project or experiential fieldwork. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5023 The Comparative Approach: Theory, Method, and Practice
Description: Provides necessary analytical and practical skills needed for the application of comparative method and its usefulness for research within the Social Sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5123 History of Education
Prerequisites: Graduate standing.
Description: History of elementary, secondary, and higher education with emphasis on Western society and the American schools. Discussion of historiography and historical methods with research emphasis on the impact of institutional development in a pluralistic society. Previously offered as SCFD 5823 and SCFD 6823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5223 Role of Teacher in American Schools
Prerequisites: Graduate level standing.
Description: An introduction for those students wishing to pursue the teaching profession. An overview of teaching and policy in American schools and background in history, theory, and philosophy of education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5713 Educational Philosophy
Description: Advanced study of key philosophers in Western history whose ideas have greatly influenced educational theories and practices. Contemporary philosophical debates of educational issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5720 Education Workshop
Description: For teachers, principals, superintendents, and supervisors who have definite problems in instruction or administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5850 Directed Study
Description: Directed study for master's level students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5873 Culture, Society and Education
Description: Cultural assumptions, constructions and social practices in childhood and education in a variety of societies. Children's family, community and school lives. Anthropological and comparative perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5883 Educational Sociology
Description: The manner in which social forces and institutions influence education and the educational system in the United States. Previously offered as CIED 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5913 Introduction to Qualitative Inquiry
Description: Examination of the major approaches and fieldwork techniques of qualitative research as well as the challenges associated with conducting this form of inquiry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5923 Popular Culture and Education
Description: Investigation and analysis of the ways popular culture socializes and educates young people in social and school norms. Considers connections among popular culture, youth identity, relationships, resistance and activism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5990 Problems and Issues in Social Foundations
Description: In-depth exploration of a contemporary problem or issue in the social foundations of education. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5993 Urban Education
Description: Examines the historical, political, economic and sociocultural contexts of urban education as it pertains to students, teachers, administrators, and community members. Previously offered as SCFD 5998.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6023 Comparative Education
Description: A systematic investigation of educational institutions in various nations for the purpose of an enlarged, critical view of American education. Researching specific transnational educational theories. Previously offered as SCFD 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6113 Theoretical Foundations of Inquiry
Description: Exploration of the history and philosophical assumptions undergirding theories, methods and issues of ethics and rigor associated with both qualitative and quantitative research in education and related fields. An in-depth overview of research paradigms through readings and discussions. Foundational doctoral-level research course. Previously offered as EDLE 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6123 Qualitative Research I
Prerequisites: Beneficial to have taken REMS 5013 and either SCFD 6113 or EDLE 6853 or HESA 6853, as well as a course introducing doctoral-level research, such as CIED 6503.
Description: The traditions, philosophies, approaches, and methods of qualitative research, including participant observation, interviewing, and preliminary data analysis. Prior knowledge/experience with literature reviews and research design is expected.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6163 Ethnography
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Theoretical and historical grounding of ethnography as a methodology, exposure to diverse ethnographic approaches such as autoethnography, critical, visual and feminist ethnographies, and opportunities to conduct a small scale ethnography project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6173 Visual Methodologies
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Practical guidance, theoretical orientation, and ethical considerations in the creation and interpretation of visual culture and its use with different qualitative methodologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6183 Narrative Research Methodologies
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Theoretical grounding, research design, and practice in qualitative narrative research methodologies such as narrative inquiry, auto/biography and life history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6190 Qualitative Research: Selected Methods
Prerequisites: Honors Program participation, junior standing.
Description: Study of select qualitative methods to get a “hands on” feel for the method. Methods include classic and new approaches such as arts-based, biography, case study, discourse analysis, ethnography, grounded theory, historical social science, phenomenology, writing and representation. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6193 Qualitative Research II
Prerequisites: SCFD 6123, SCFD 6133 or consent of instructor.
Description: Various approaches to qualitative data analysis, including the use of computer applications. Additional attention to issues of writing, representation, reflexivity, and reciprocity. Practice in analytic techniques and writing research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6443 Ethics and Moral Education
Description: Interdisciplinary perspective of traditional and contemporary ethical theories, focusing on application to professional practice and moral education. Moral development, the moral life, feminist ethics, and character education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6501 Curriculum and Social Foundations Doctoral Seminar I
Description: Orientation to doctoral study primarily for students in the PhD program in Curriculum and Social Foundations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6511 Curriculum and Social Foundations Doctoral Seminar II
Description: Orientation to the professoriate primarily for students in the PhD program in Curriculum and Social Foundations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6630 Topics in Philosophy Education
Description: Consideration of topic or topics (e.g. childhood and modern subjectivity) that are of great concern to the field of philosophy of education. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6850 Directed Reading
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6853 Anthropology of Education
Description: Understanding and critically reflecting on educational issues from a cultural anthropological perspective. Developing the knowledge and skills needed to understand cultural influences on teaching and learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6880 Internship in Education
Description: Directed off campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6883 Transforming Pedagogies
Description: Contemporary pedagogical theories and school reform initiatives, including origins, purposes, underlying philosophical assumptions, cultural contexts, and implications for schooling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6910 Practicum
Description: The student carries out an acceptable research problem (practicum) in a local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6983 Diversity and Equity Issues in Education
Description: Many social, historical and cultural constructions of "difference" and the impact in personal and professional relationships in education and related human service fields. Categories of race, class, and gender, but may also include ethnicity, sexual orientation, and special needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6990 Seminar in Social Foundations
Description: In-depth seminar focusing on a contemporary problem or issue in the social foundations of education. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Sociology (SOC)

SOC 1113 Introductory Sociology (S)
Description: Coming to terms with the requirements for living in a complex social world. Sociological concepts used to assist students in understanding the social influences in day-to-day life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2113 Introduction to Criminal Justice (S)
Description: This introductory course provides an overview of the U.S. criminal justice system. Some of the topics covered include police and corrections officers, prosecutors, defense attorneys, and judges. While a variety of societal responses to adult and juvenile crimes are discussed, this course primarily focuses on the formal responses of law enforcement, the courts, and corrections. Societal goals of punishment are covered as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2123 Social Problems (DS)
Description: Exploration in selected social issues in contemporary American society, such as deviance, poverty, sexism, racism and ageism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 2213 Gangs and Society (S)
Description: This course provides an overview of gangs as social phenomena. Gangs of particular interest include youth gangs, urban/rural gangs, street gangs, prison gangs, military gangs, and outlaw motorcycle gangs. The course additionally analyzes how socially-constructed group characteristics (i.e., race, class, gender and ethnicity) relate to gang membership. U.S. street and prison gangs receive extensive coverage. Social alternatives to gangs are discussed as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2233 Building Partnerships through Policing
Description: The course explores the fundamentals of policing, introducing students to important concepts in and practices related to policing with particular focus on the college setting. This course is aimed at students considering a law enforcement career or interested in learning more about policing. Part of OSUPD's mission is to educate students about how we police the community. Applying both theoretical knowledge with practical application introduces the realities faced by modern law enforcement. By taking this course, students will gain an introspective, applied perspective of law enforcement. Students will be required to complete a release waiver that allows them to participate in some of the practical skills illustrated throughout the course, including a ride-along with an OSUPD officer and interacting with the firearms simulator.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 2243 Sociology of Drugs
Description: Why do individuals use drugs? Why are some substances criminalized and not others? What sociocultural factors determine how drugs are defined and categorized? What is the history of U.S. drug policy and how has it changed? What responses are effective in controlling drug use and abuse? This course answers these questions and more through sociological literature, case studies, film and popular media, and class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 2890 Honors Experience in Sociology
Prerequisites: Honors Program participation and concurrent enrollment in a designated SOC course.
Description: A supplemental Honors experience in Sociology to partner concurrently with designated Sociology course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 3113 Theoretical Thinking in Sociology
Prerequisites: Six credit hours of sociology, including SOC 1113.
Description: Sociological theory in three broad areas: the emergence of social theory, the major schools of social theory and the relevance of theory to sociological research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3133 Racial and Ethnic Relations (DS)
Description: This course examines cause and dimensions of racial inequalities in American society, with special emphasis on intersectional, social psychological, organizational, and institutional processes. Previously offered as SOC 2133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 3153 Sociology of Sport (S)
Description: Application of sociological principles, theories, and methods to the understanding of sport as a social institution. Topics such as the social organization of sport, relations with other institutions such as education, economy, politics, family and religion, deviance in sport, inequality, gender, and race in sport, and the future of sport are covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3223 Social Psychology (S)
Description: Social basis of personality development and behavior, including symbolic environment, self and group motivation, attitudes and opinions, and social roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3323 Collective Behavior and Social Movements
Description: Analyzes panics, crazes, riots and social movements emphasizing institutional and social psychological origins and consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3333 Policing and Society (S)
Description: This course explores the social institution of policing. Extensively covered are the relationships between police agencies, agents, and practices and social groups (based on race, class, gender, sexual identity/orientation, age, disability, and other classifications) and policies (e.g., War on Drugs) in the United States. Additional course topics include the roles of police, police patrol, police discretion, police use of force, and community policing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3343 Technology and Society
Description: Exploration of various aspects of the relationship between society and technology. Analysis of arguments about the role of technology in society. Examination of the social contexts within which technology is created and discussion of the mechanisms and processes through which technology is embraced or discarded, such as peer review, politics, religion, and legal frameworks. Previously offered as SOC 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3423 Urban Sociology
Description: Urbanization as a worldwide process. The demography and ecology of cities and metropolitan regions. Urban planning and future development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3523 Juvenile Delinquency (DS)
Description: Juvenile delinquency behavior in relation to family, school, church, peers, community and institutional structures. The extent of delinquent expressions, varieties of delinquency, comparative international perspectives and new trends of females in delinquency and gang behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 3713 Religion, Culture and Society
Prerequisites: Recommended: SOC 1113, ANTH 2353, REL 1103.
Description: An introduction to the scientific study of religion. Religious activity in both tribal and technological societies studied in the light of contemporary interpretations of culture and of social behavior. Same course as REL 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3890 Advanced Honors Experience in Sociology
Prerequisites: Honors Program participation and concurrent enrollment in a designated SOC course.
Description: A supplemental Honors experience in Sociology to partner concurrently with designated upper-division SOC course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 3953 Applied Sociology
Prerequisites: Sociology majors or consent of instructor or adviser.
Description: Application of sociological theory and methods to various job situations. Preparation for field experience in a variety of work settings. Previously offered as SOC 3952.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3993 Sociology of Aging (DS)
Description: Sociological perspectives on aging, including the analysis of the social behaviors across all stages of the life course from birth to death.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 4023 Juvenile Corrections and Treatment Strategies
Prerequisites: SOC 3523 or SOC 4333.
Description: The juvenile justice system, emphasizing the juvenile court, diversion and youth service bureaus as well as the more traditional training schools and foster homes. Experimental treatment strategies with institutionalized delinquents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4033 Comparative Perspectives of Criminal Justice Systems (GS)
Description: Study of criminal justice systems in different nation states and culture context from a different comparative perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SOC 4043 Gender and Work (DS)
Description: Consideration of unpaid, paid and volunteer work and gender differences. Linkages between economy, work, and family with examples from United States and less developed countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 4103 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital cases and how the criminal justice responds to these issues. Same course as AMST 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4133 Social Research Methods
Prerequisites: SOC 1113. Past completion of or concurrent enrollment in SOC 3113.
Description: Applying sociological theory to designing quantitative and qualitative research; methods of data collection, processing and analysis; basic skills in computer analysis of social data. Research project included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4153 Sociology of Health and Illness
Description: Critically analyzes the social production of disease and illness in modern society from a sociological perspective. Examines the social organization of Medicare care, including critical issues affecting healthcare and health insurance in the United States. Focuses on the meanings and experiences of illness, as well as on contemporary critical debates such as environmental and health, bioengineering, and bioethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4213 Sociology of Sexualities (S)
Description: Sociological aspects of sexual behavior, attitudes and belief systems in society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4243 Quantitative Methods in Sociology
Prerequisites: SOC 1113, SOC 3113, SOC 4133.
Description: Strategies and procedures in the analysis of quantitative sociological data, including the use of statistical computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4313 Sociology of Law
Description: Law has been studied from different perspectives. In this course, we will focus on issues concerning the relationship between law, legal institution, and society. Issues such as the relationship between law and social change, the origins of law, the integrative function of law, law and social conflict, legal profession, and rationales of punishment and penal policies are explored through classical and contemporary sociological theories. In addition, we will consider the role of law and legal institution in reinforcing and changing social class, gender, and race inequalities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4333 Criminology (S)
Description: Summary of sociological and psychological research pertaining to crime causation and crime trends. Modern trends in control and treatment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4383 Social Stratification (S)
Description: Systems of class and caste, with special attention to the United States. Status, occupation, income, and other elements in stratification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4433 Environmental Sociology (S)
Description: Critical assessment of the social causes and consequences of problems with resource scarcity and environmental degradation. Environmental problems viewed as social problems, requiring an understanding of the structural conditions producing environmental problems and inhibiting resolutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4453 Environmental Inequality (S)
Prerequisites: SOC 1113.
Description: Considers the connection between environmental problems and race/ethnicity and class inequality. Focuses on environmental justice/equity, social movements, health, policy and risk at the local, national and global levels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4473 Oklahoma Environmental Sociology
Description: Critical assessment of the social causes and consequences of environmental problems in Oklahoma, both historical and contemporary. Examines the Land Run, the Dust Bowl, the Oil Boom, land ownership and use patterns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4493 Sociology of Environmental Hazards and Disasters
Prerequisites: SOC 3113 or instructor permission.
Description: Explores societal dimensions of environmental hazards and disasters, emphasizing disaster theory and research, key issues in the sociological study of environmental hazards and disasters, such as social impacts, social vulnerability, and community development and resilience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4533 World Population Problems
Description: Fertility, mortality and migration, and other factors related to population size, density, and composition; the population explosion, worldwide famine, birth control, and other serious social issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4573 Victimology
Description: This course combines various academic disciples to introduce the field of Victimology. The course represents an overview of the Victimology field; courts, victim services, victimization, and personnel issues. Students use the on- line and reading material to build a framework for understanding the wide field of Victimology together with victim issues and career opportunities. Same course as PSYC 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4643 Sociology of Gender (S)
Description: Explores the social organization of gender from diverse theoretical and empirical perspectives using a global experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4653 Gender and the Middle East (GS)
Description: An overview of gender-related issues in the Middle East and North African countries is provided to bridge cultures and build understanding. Specific attention is given to issues of women and how they are connected to changes in culture, economics, politics and society. May not be used for degree credit with SOC 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SOC 4663 Undergraduate Capstone Seminar in Sociology
Prerequisites: Majors; senior standing; SOC 3113, SOC 4133, SOC 4243.
Description: Concluding course for Sociology majors. Application of the skills, knowledge and expertise acquired in Sociology, including critical thinking, writing, theory and methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4723 Sociology of Families (S)
Description: The family as a social institution and relationship between family and other institutional structures and systems, including work and the economy, education, government and law, health care, and the media. Previously offered as SOC 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4733 Criminal Behavior Analysis
Prerequisites: SOC 3523 or SOC 4333.
Description: This course combines various academic disciplines toward a behavioral examination of the violent criminal offender. By examining the crime scene from a behavioral perspective, the psychodynamics of the offender, the sociological forces, and the social psychological dimensions of victim-offender interactions are combined for a more holistic understanding of the violent offender.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4743 Criminalistics: Introduction to Forensic Sciences
Prerequisites: SOC 3523 or SOC 4333.
Description: Criminalistics or forensic sciences involve the application of physical and behavioral sciences to social order or more specifically, the relationship between science and law. This course introduces the student to the various aspects of forensic examinations of violent criminal behavior. By examining modern techniques of crime scene analysis, the student learns how theory and technological development impact our social concepts of law and justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4753 Advanced Forensics
Prerequisites: SOC 3523 or SOC 4333 and SOC 4743.
Description: Forensic sciences involve the application of physical and behavioral sciences to social order and law. This course advances students' understanding of examinations of violent criminal behavior. Students gain awareness of the interdependent relationships of various physical and social science disciplines and how these issues are operationalized at an actual crime scene.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4923 Sociology of Punishment (S)
Description: An overview of punishment across time and place. Topics surveyed include theories of punishment; formal and Informal social control; and corrections, including Its consequences and alternatives. Special topics may be examined when time permits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4950 Current Topics in Sociology
Description: Special topics in sociology; topics vary from semester to semester. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4990 Exploration of Sociological Issues
Prerequisites: Consent of instructor.
Description: Examines sociologically significant topics and issues. May not be used for degree credit with SOC 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology

SOC 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in sociology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 5000 Thesis in Sociology
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 5001 Graduate Proseminar
Prerequisites: Admission to Sociology graduate program.
Description: Introduction and orientation to the graduate program in the Department of Sociology.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5013 Creative Component in Sociology
Description: A guided course serving as the final requirement for graduate students in the Department of Sociology's Master of Science degree, non-thesis option.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5063 Seminar in Social Inequality and Stratification
Prerequisites: Graduate standing.
Description: Provides comprehensive overview and analysis of theories and research in social inequality and social stratification. Includes: study of classical and contemporary theories, development of research in the field, dynamics of inequalities and current and future perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5113 Classical Sociological Theory
Prerequisites: SOC 3113 or equivalent.
Description: Major trends in sociological thought. The emergence of sociological theory in Europe and America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5123 Contemporary Sociological Theory
Prerequisites: SOC 3113 or equivalent.
Description: Critical examination of significant theoretical formulations, 1920 to the present. Relation between theoretical development and current research emphasis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5213 Techniques of Population Analysis
Prerequisites: Graduate standing.
Description: Examination of primary techniques and statistics employed in studies of population characteristics. Examination of sources of demographic data, methods employed in the collection and analysis of data on population characteristics, composition and change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5223 Culture, History and World Systems
Prerequisites: Admission to Graduate College and international studies program.
Description: The modern world system and its new social formations resulting from increasing globalization. Examination of cultural, socio-economic, and political changes in developed and developing societies. Modern societies, their historical developments, the cultural politics of difference, and the re-emergence of ethnic groups worldwide. Existing theoretical models of change for profit and non-profit organizations. Same course as INTL 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5243 Social Research Design
Prerequisites: SOC 3113; SOC 4133 or equivalent; graduate standing.
Description: Techniques in design, data collection, and interpretation of data for sociological research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5263 Quantitative Analysis of Social Research
Prerequisites: SOC 3133; SOC 4133 or equivalent; graduate standing.
Description: Advanced techniques in sociological research and data analysis focusing on the formulation of substantive research questions and application of a variety of research procedures to answer such questions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5273 Qualitative Research Methods
Description: Examination of ethnographic studies and implementation issues connected with qualitative research. Research project required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5283 Advanced Qualitative Sociological Research
Prerequisites: SOC 5273 or consent of instructor.
Description: Intensive examination of advanced qualitative research in sociology. Requires students to design and implement their own qualitative sociological research projects under the guidance of the instructor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5323 Seminar on Collective Behavior and Social Movements
Prerequisites: Graduate standing.
Description: Examination of major theoretical and empirical approaches employed in the study of social movements. Exploration of problems on the nature and current theories of social movements including individual versus group approaches. Grassroots resistance, community organizing, political conflicts, and revolutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5333 Global Population and Social Problems
Prerequisites: Graduate standing.
Description: Study in world, regional and national population characteristics, changes and associated problems and cultural influences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5343 Sociology of Law and Punishment
Description: Advanced study in the sociology of law and punishment. Focus on both classical and contemporary sociological and legal research. An interdisciplinary and comparative approach is also emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5463 Seminar in Environmental Sociology
Description: Critical overview of contemporary developments in environmental sociology. Environment concern, disasters, health issues, risk assessment, and environmental conflict.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5473 Seminar on the Contemporary Environmental Movement
Description: Critical overview of contemporary theory and research on the environmental movement. Analysis of crucial movements dynamics, including historical development, central organizing themes, strategies and tactics, and movement activities, environmental health movements, and transnational movement campaigns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5493 Seminar in Environmental Justice
Description: Considers racial, class and equity implications of environmental degradation and regulation. Includes discussion of controversies over the siting of hazardous facilities in urban and rural areas, the extraction of resources from native lands, national and transnational export of toxic waste to the South and the development of a distinct environmental justice movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5553 Seminar in Medical Sociology
Description: Advanced study in the sociology of medicine, including the doctor-patient relationship, the social meanings of health and illness, epidemiology, health care delivery, and the medicalization of American society. Analysis of the sociology of organic illness and mental illness using readings from both classical and contemporary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5573 Seminar on Victimology
Description: Critical overview of contemporary theory and research on victimology. Relationships between victim and offenders, social institutions such as media, police, business, advocacy groups, and various social movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5583 Comparative Criminal Justice Systems
Description: Examines crime and criminal justice in a global world. Compares the current major legal traditions with the U.S. criminal justice system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5593 Seminar on Organization and Administration in Law Enforcement and Society
Description: Critical overview of contemporary theory and research on administration in law enforcement and society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5643 Gender and Society
Prerequisites: Graduate standing.
Description: This course provides an overview of current theoretical and empirical research in the sociology of gender. Topics include (1) how best to theorize, conceptualize, and analyze gender; (2) how gender is socially constructed and enacted in individuals' lives; (3) how gender intersects with other identities (e.g., race, social class, sexuality) to shape our experiences and life chances; and, (4) how gender is embedded within institutional processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5653 Gender and the Middle East
Description: An overview of gender-related issues in the Middle East and North African countries is provided to bridge cultures and build understanding. Specific attention is given to issues of women and how they are connected to changes in contemporary culture, economics, politics, and society. May not be used for degree credit with SOC 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5663 Seminar in Race and Ethnicity
Prerequisites: Graduate standing.
Description: Analysis of the dynamics of intercultural and intergroup relations in America with special emphasis on the examination of major conceptual perspectives that have characterized the study of race and ethnicity in American life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5763 Contemporary Organizational Theory
Prerequisites: Graduate standing.
Description: Advanced study of contemporary theories used to explain, predict and understand organizations. Behavior of populations of organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5793 Seminar on Organizational Deviance
Description: Overview of contemporary theory and research on organizational deviance. Defining acceptable risk. Organizational structures, processes, and standard operating procedures that produce mistake, misconduct and disaster.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5813 Myths and Realities of Organizational Change
Prerequisites: Graduate standing.
Description: A critical examination of the various theories and models that address change and improvement processes in complex organizations. Theoretical and methodological validity of assumptions underlying such organizational theories and models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5950 Seminar in Sociology
Prerequisites: Graduate standing.
Description: Special seminar; topics vary from semester to semester. Offered for variable credit, 1-3 credit hours, maximum of 25 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5980 Internship
Description: Supervised field placement. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 5990 Advanced Problems and Issues in Sociology
Prerequisites: Consent of instructor.
Description: Group enrollment or individual research enrollment as needed. Graduate level analysis of special problems and issues in sociology not covered in other department offerings. May not be used for degree credit with SOC 4990. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6000 Dissertation
Description: Offered for variable credit, 1-12 credit hours, maximum of 18 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6213 Theory of Social Structure
Prerequisites: Six hours of undergraduate sociology or equivalent.
Description: Relationship between human thought and the social context within which it arises.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6390 Seminar in the Family, Marriage and Male-Female Roles in American Sociology
Description: Analysis of published research in sociology of family, marriage and male-female roles and relationships with special emphasis on American society. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6460 Advanced Studies in Environmental Sociology
Prerequisites: SOC 5463 or consent of instructor.
Description: Intensive examination of selected topics in environmental sociology. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6463 International Issues in Environmental Sociology
Prerequisites: Graduate standing.
Description: Advanced study of the international context of environmental issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6493 Sociology of Disaster
Description: Critical examination of contemporary theory and research on the social aspects of disasters. Social system response to large-scale crises. Vulnerability, warnings, preparedness, recovery, mitigation, and sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6653 Seminar in Social Psychology
Description: Development and critical analysis of theory and research in social psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6753 Seminar in Deviance and Criminology
Description: Current research and theory in criminology, penology and deviance in modern society. Previously offered as SOC 6750.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6763 Seminar in Theory of Criminal Behavior Analysis
Description: Critical overview of contemporary theory and research on criminal behavioral analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6853 Seminar in Symbolic Interactionism
Description: Symbolic interactionism, a major contemporary school of thought in sociology and psychology, emerging from philosophical pragmatism with special emphasis on the thoughts of George H. Mead and its derivatives including dramaturgy, existential social psychology, and phenomenological.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6950 Seminar in Social Gerontology
Description: A theoretical and practical examination of the sociological implications, both individual and societal, of an aging population. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

Soil Science (SOIL)

SOIL 1113 Land, Life and the Environment (N)
Description: Provide information about soils at local, regional, national, and global scales as well as basic soil properties and how they are influenced by human activity. Discussion topics include soil's importance to world food security and human health, agricultural production, environmental quality, and sustainable ecosystems. Students will gain practical knowledge of sustainable soil management in support of the production and ecological regulator functions of the soils.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

SOIL 2124 Fundamentals of Soil Science (N)
Prerequisites: CHEM 1215 or CHEM 1314 or CHEM 1414.
Description: Introduction to soil physical, chemical and biological properties and processes necessary in formulating land use decisions related to agricultural, engineering and environmental concerns. Soil formation, classification and conservation. Analysis/evaluation of soils in field and laboratory settings. Course previously offered as AGRN 2124.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

SOIL 3033 Soils and Societies (S)
Description: Influence of the soil in shaping human decisions that affect food supply, cultural practices, economic growth, and establishment of societies. Survey of past and current land uses and land use changes that lead to the demise of societies or advancement of people's lives. Themes include key human utilization of the soil in Oklahoma and in the United States, roles of soil in waste treatment, and advances in assessment and utilization of soil that affect human lives. Soils in art, mythology, pop culture, healthcare, and warfare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Society & Human Behavior

SOIL 3433 Soil Genesis, Morphology, and Classification
Prerequisites: SOIL 2124.
Description: Basic principles dealing with how and why soils differ, their descriptions, geographic distributions and modern classification of soils. Soil genesis and classification a prerequisite to sound land use planning and land management. Course previously offered as AGRN 3433. May not be used for Degree Credit with SOIL 5353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences
Additional Fees: PSS or SOIL Course Field Trip fee of $40 applies.

SOIL 4210 Describing and Interpreting Soils
Prerequisites: SOIL 2124.
Description: Describe and classify soil properties in the field and interpret for suitable agriculture, urban, and other land uses. Course previously offered as AGRN 4210. May not be used for Degree Credit with SOIL 5210. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 4213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. Same course as BAE 4213. May not be used for Degree Credit with SOIL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4234 Soil Nutrient Management
Prerequisites: SOIL 2124.
Description: Soil fertility and use of fertilizer materials for conservation, maintenance, and improvement of soil productivity and to minimize environmental concerns. Course previously offered as AGRN 4234. May not be used for Degree Credit with SOIL 5234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 4363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality. Same course as ENVR 4363. Course previously offered as AGRN 4363. May not be used for Degree Credit with SOIL 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4463 Soil and Water Conservation
Prerequisites: SOIL 2124.
Description: Assess the importance, quality and quantity of soil and water as natural resources for ecosystems and societies. Principles of soil erosion processes and management practices to decrease erosion in urban, cropland and rangeland systems. Understand the principles of hydrology cycle to improve water use efficiency of precipitation and irrigation resources. Examine resource mismanagement that have resulted in desertification, salinization and deforestation. Course previously offered as AGRN 4463. May not be used for Degree Credit with SOIL 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4470 Problems and Special Study
Prerequisites: Consent of the instructor.
Description: Problems in soil science selected from topics in soil chemistry and fertility, soil physics, soil biology, soil conservation, and soil morphology. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

SOIL 4483 Soil Microbiology
Prerequisites: SOIL 2124 and BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: An overview of microorganisms living in the soil and their activities which are significant to agricultural practices and the environment. No credit for both SOIL 4483 and SOIL 5383. Course previously offered as AGRN 4483. May not be used for Degree Credit with SOIL 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4571 Professional Preparation in Plant and Soil Sciences
Prerequisites: Senior standing in plant and soil sciences.
Description: Preparation for professional certification exams and career opportunities in plant and soil sciences. Same course as PLNT 4571.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4683 Soil, Water, and Weather
Prerequisites: SOIL 2124 and PHYS 1114.
Description: Introduction to the physics of the soil-plant-atmosphere continuum. A focus on physical properties of soil and interactions with water and weather in terrestrial ecosystems. Course previously offered as AGRN 4683. May not be used for Degree Credit with SOIL 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4893 Environmental Soil Chemistry
Prerequisites: SOIL 2124 and CHEM 1225 or CHEM 1515.
Description: Chemical of soil systems with an emphasis on environmental health and quality. Topics include organic matter dynamics, the role of plant and microbial inputs, ion exchange processes, sorption phenomena, properties of clay minerals, and soil acidity. Same course as ENVR 4893. Previously offered as SOIL 3893 and AGRN 3893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5000 Master's Thesis
Prerequisites: Consent of adviser.
Description: Research planned, conducted and reported in consultation with a major professor. 1-6 credits, 6 max total credits under Plan I, and 2 max total credits under Plan II. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Discussion of research philosophy, methods, interpretation, and presentations. Profession development and contributions to the scientific community. Same course as PLNT 5020. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5110 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Supervised study of special problems and topics not covered in other graduate courses. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5112 Research Methods in Plant and Soil Sciences
Prerequisites: Graduate standing.
Description: Exploration of various methodologies helpful in field scale research. Application and understanding biometry as it relates to research result interpretation. Course previously offered as SOIL 5111.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5120 Teaching Practicum in Plant and Soil Sciences
Description: College-level teaching experience under the mentorship of a faculty member who assists in planning of class activities, provides guidance in teaching-related projects, observes classes and provides feedback regarding course delivery and classroom management. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5131 Professional Development Colloquium in Plant and Soil Sciences
Description: Professional preparation of graduate students for future careers. Discussions on topics related to the application process and successful careers in the academic, private industry and government sectors. Concerns of international students, career-life balance and other post-graduate school career issues are discussed.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Plant & Soil Sciences

SOIL 5210 Describing and Interpreting Soils
Prerequisites: SOIL 2124.
Description: Describe and classify soil properties in the field and interpret for suitable agriculture, urban, and other land uses. May not be used for degree credit with SOIL 4210. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. May not be used for degree credit with SOIL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5223 Soil Chemical Processes and Impact on Environmental Quality
Prerequisites: SOIL 4893 and CHEM 2113 or CHEM 3324 or equivalent.
Description: A comprehensive study of chemical processes applied to fate and transport of contaminants and agricultural productivity. Chemical and physical properties of soil minerals as they pertain to solution and surface chemistry. Nutrient and contaminant availability and speciation as dictated by ion exchange, precipitation/dissolution, and adsorption reactions. Review of current research in soil and environmental chemistry literature. Course previously offered as SOIL 5224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5230 Research
Prerequisites: Consent of a faculty member supervising the research.
Description: Supervised independent research on selected topics. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5234 Soil Nutrient Management
Prerequisites: SOIL 2124.
Description: Soil fertility and use of fertilizer materials for conservation, maintenance, and improvement of soil productivity and to minimize environmental concerns. May not be used for degree credit with SOIL 4234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5353 Advanced Soil Genesis and Classification
Prerequisites: SOIL 3433.
Description: Processes and factors of soil formation. Comparison of world soil morphology and classification systems. Course previously offered as AGRN 5353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality. May not be used for degree credit with SOIL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5383 Advanced Soil Microbiology
Description: A comprehensive overview of microorganisms living in the soil and their activities which are of agricultural and environmental significance. Provide experience in analytical skills related to soil microbial processes. No credit for both SOIL 4483 and SOIL 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5463 Soil and Water Conservation
Prerequisites: SOIL 2124.
Description: Assess the importance, quality and quantity of soil and water as natural resources for ecosystems and societies. Principles of soil erosion processes and management practices to decrease erosion in urban, cropland and rangeland systems. Understand the principles of hydrology cycle to improve water use efficiency of precipitation and irrigation resources. Examine resource mismanagement that have resulted in desertification, salinization and deforestation. May not be used for degree credit with SOIL 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5483 Soil Bioremediation and Sustainability
Prerequisites: SOIL 4483.
Description: Microbial activities, biodiversity, sustainability, and their interrelationships in soil and the environment. Soil enzymology, environmental sustainability, and bioremediation of agricultural and industrial chemicals, heavy metals, chlorinated organics and explosives. Formulation of strategies that promote soil productivity and environmental sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5513 Nature-based Solutions
Prerequisites: Graduate Standing
Description: Explore the definition of nature-based solutions (NbS) within environmental science and examples of current practices around the world. Examine NbS as a way to confront global environmental challenges. Utilize available guidance to suggest nature-based solutions to specific problems on a local scale. May not be used for degree credit with ENVR 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5583 Soil Physics Measurement Techniques
Prerequisites: SOIL 4683.
Description: Training in field and laboratory techniques for physical analysis of soil properties and processes. Develop research proposal and conduct research project related to soil physics. Course previously offered as AGRN 5583.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5683 Soil, Water, and Weather
Prerequisites: SOIL 2124 and CHEM 1225.
Description: Introduction to the physics of the soil-plant-atmosphere continuum. A focus on physical properties of soil and interactions with water and weather in terrestrial ecosystems. May not be used for degree credit with SOIL 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5813 Soil-Plant Nutrient Cycling
Prerequisites: SOIL 4234 or equivalent.
Description: Theory and application of soil/plant nutrient cycling in production agriculture. Focus on nutrient sources, chemical, physical, and biological fluxes, plant uptake and removal mechanisms, and nutrient loss pathways. Course previously offered as AGRN 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5893 Environmental Soil Chemistry
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5894 Soil Biogeochemistry
Prerequisites: SOIL 4893 or Consent of Instructor.
Description: Foundational and emerging concepts in soil biogeochemistry with an emphasis on transformation and fates of carbon, nitrogen, and phosphorus from molecular to global scales. Discussions are focused on molecular-scale processes occurring at the interface between mineral surfaces, microbes, and plants all the way to the controls on nutrient storage and cycling at the ecosystem-scale. Student-led discussions on peer-reviewed literature and exploration of key topics in soil biogeochemistry.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 6000 Doctoral Thesis
Prerequisites: Consent of instructor.
Description: Independent research to be conducted and reported with the supervision of a major professor as partial requirement for the PhD degree. Offered for variable credit, 1-6 credit hours, maximum of 36 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 6583 Soil Physics Theory
Prerequisites: SOIL 4683 or equivalent and MATH 2233 or equivalent.
Description: Theoretical understanding and modeling skills required to analyze and predict mass and energy transport in the soil-plant-atmosphere continuum. Application of analytical and numerical models for diverse transport phenomena including water, heat, and solute transport through soil.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

Spanish (SPAN)

SPAN 1713 Elementary Spanish I (F)
Description: Pronunciation, conversation, grammar, and reading. Includes language lab work. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 1813 Elementary Spanish II (F)
Prerequisites: SPAN 1713 or equivalent proficiency.
Description: Continuation of SPAN 1713. Includes language lab work. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 1821 Medical Spanish
Prerequisites: Previously completed or concurrently enrolled in SPAN 1813
Description: This course is specifically geared to students who are taking Elementary Spanish II (SPAN 1813), and that want to pursue a career in the health professions. This means that you need to be enrolled in SPAN 1813 and Spanish for Health Care Professionals the same semester or have taken SPAN 1813 already. You will learn vocabulary, dialogs, and structure to help greet patients, take vital signs, interview to find out the chief complaint, review medical history, give a physical exam, and recommend prescriptions or follow-up instructions.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2713 Intermediate Spanish (F)
Prerequisites: SPAN 1813 or equivalent proficiency.
Description: Further development of speaking, listening, reading, and writing skills along with short cultural and literary readings. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2723 Intermediate Hispanic Culture and Media
Prerequisites: SPAN 1813 or equivalent proficiency.
Description: Further development of language skills within Hispanic cultural contexts. May be taken concurrently with 2713 or subsequently (but not before).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2813 Intermediate Reading and Conversation
Prerequisites: SPAN 2713 and SPAN 2723 or equivalent proficiency.
Description: Skill consolidation with emphasis on short literary readings and conversation. May be taken concurrently with SPAN 2823. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2232.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2823 Intermediate Composition and Grammar
Prerequisites: SPAN 2713 and SPAN 2723 or equivalent proficiency.
Description: Skill consolidation with emphasis on composition and grammar with some conversation. May be taken concurrently with SPAN 2813. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3053 Introduction to Literatures and Cultures in Spanish
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Introduction to techniques of literary analysis and research in Spanish and to Hispanic literary history. Prerequisite for all advanced literature courses in Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3163 Literature of Medieval and Early Modern Spain
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of literature in Spain from the medieval period to 1700. Previously offered as SPAN 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3173 Literature of Spain from 1700 to the Present
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of literature in Spain from 1700 to the present. Previously offered as SPAN 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3183 Early Latin American Literature
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Survey of Latin America literature in Spanish from the pre-Columbian era to the turn of the 20th century, including letters, chronicles, essays, poetry, drama, and narrative. Previously offered as SPAN 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3193 Modern and Contemporary Latin American Literature
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Survey of 20th and 21st century Latin American literature in Spanish, including narrative, poetry, drama, and essays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3203 Advanced Conversation
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Practice in conversation skills, designed to bring students to a high level of proficiency in speaking and listening. Class conducted in Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3213 Advanced Grammar and Composition
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Study of advanced grammar and stylistics with emphasis on composition skills, designed to bring students to a high level of proficiency in writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3343 Business Spanish
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of spoken and written Spanish for use in business and professional contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3363 Spanish for Healthcare Professionals
Prerequisites: 18 credits of lower-division Spanish or equivalent proficiency.
Description: This course is designed for healthcare professionals. You will learn vocabulary, dialogs, and structure to help greet patients, take vital signs, interview for symptoms, review medical history, give a physical exam, and recommend prescriptions or follow-up instructions. Although by no means comprehensive, the course will provide a starting point for communicating with Spanish-speaking patients. Cultural notes will be provided to assist in making patients more comfortable.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3403 Introduction to Hispanic Linguistics
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: This course provides an introduction to the scientific study of language and its structure and includes introductions to the fields of pragmatics, phonology, sociolinguistics, historical linguistics, and applied linguistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3463 Spanish Phonetics and Phonology
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: In this course students will examine the phonetic and phonological systems of Spanish as well as the extensive diatectal and sociolinguistic variation of these sounds in the Spanish-speaking world and among learners of Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4123 Hispanic Poetry
Prerequisites: One 3000 level Spanish literature course.
Description: Detailed study of representative poetry from Spain or Latin America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4133 Hispanic Prose
Prerequisites: One 3000 level Spanish literature course.
Description: Detailed study of representative prose works from Spain or Latin America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4143 Short Novels in Hispanic Literature
Prerequisites: One 3000-level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures written in Spanish. Examine the different literary movements, social and historical courses that influenced the novels, as well as the theoretical models about them. Because of the close connection to Cinema and Theater, the readings will be compared to their cinematic adaptations and to other artistic genres.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4163 Don Quijote
Prerequisites: One 3000 level Spanish literature course.
Description: Seminar devoted to Cervantes' novel.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4173 Hispanic Drama
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and interpretation of dramatic works selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4183 Spain and Islam
Prerequisites: One 3000 level Spanish literature course.
Description: An in depth study of conflict and coexistence among Christian and Islamic cultures in Spain from the eighth century to the present day. The course includes both literary and historical readings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4193 Hispanic Film
Prerequisites: One 3000 level Spanish literature course.
Description: Study of Spanish and/or Latin American films from cultural, historical, and artistic perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4203 Hispanic Music
Prerequisites: One 3000-level Spanish literature course.
Description: Critically interpret songs (their music and lyrics), identify the periods during which they were produced and their style, and related them to each other. Recognize and analyze the main cultural movements, historical events, and figures that shaped the development of Hispanic Music as it is represented in music production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4213 Short Stories in Hispanic Literature
Prerequisites: One 3000-level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures written in Spanish. Examine the different literary movements, social and historical causes that influenced the Short Stories, as well as the theoretical models about them. Critically analyze texts, identify their periods and style, and relate them to each other. Recognize and analyze the chief literary movements, historical events, and figures that shaped the development of the stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4223 Contemporary Hispanic Literature
Prerequisites: One 3000 level Spanish literature course.
Description: Major Hispanic writers since 1900.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4253 Masterpieces of Hispanic Literature I
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4263 Masterpieces of Hispanic Literature II
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4323 Culture and Civilization of Spain
Prerequisites: One 3000 level Spanish course.
Description: Reading and discussion of selected texts outlining the development of the culture and civilization of Spain. Previously offered as SPAN 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4333 Culture and Civilization of Latin America
Prerequisites: One 3000 level Spanish course.
Description: Reading and discussion of selected texts outlining the development of contemporary Hispanic civilization of the Americas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4413 Advanced Stylistics
Prerequisites: SPAN 3213.
Description: Continuation of SPAN 3213, emphasizing further development of grammar and composition in a variety of contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4443 History of the Spanish Language
Prerequisites: One 3000-level Spanish course.
Description: This course provides an introduction to the origins and linguistic development of the Spanish language from its Latin roots to Modern Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4453 Voices of US Spanish: Identity and Variation
Prerequisites: One 3000 level Spanish course.
Description: This course provides an in-depth exploration of the Spanish language as it is spoken and used in the United States, drawing on sociolinguistic, cultural, and historical perspectives. Students will examine the dynamic nature of Spanish in various U.S. communities, with special attention to the unique sociolinguistic landscape of Spanish in Oklahoma. The course will cover topics such as language contact, bilingualism, code-switching, language maintenance, and the role of Spanish in shaping Latino identities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Foreign Lang & Lit

SPAN 4463 Sociolinguistics of the Spanish-Speaking World
Prerequisites: One 3000-level Spanish course.
Description: In this course students will investigate the variation of the Hispanic language as well as the linguistic features of Spanish as a result of Spanish in contact with other languages. Phonetic/phonologic, morphologic, syntactic, and lexical features of Spanish will be examined in relation to broader geographical, social, political, cultural, and historical contexts of the Spanish-speaking world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4550 Seminar in Spanish
Prerequisites: One 3000-level Spanish course, or equivalent.
Description: Readings and discussion of vital subjects in Spanish. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

SPAN 4650 Topics in Spanish
Prerequisites: One 3000-level Spanish course, or equivalent.
Description: In depth study of a specific aspect of Hispanic literature, culture or language. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 5110 Advanced Hispanic Studies
Prerequisites: 22 hours of Spanish or graduate standing in foreign language.
Description: Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Languages and Literatures

Special Education (SPED)

SPED 3202 Educating Exceptional Learners
Description: Learning characteristics, needs and problems of educating the exceptional learner in the public schools. Implications of the learning, environmental and cultural characteristics; planning and program assistance available for accommodating the exceptional learner in regular and special education programs; observation of exceptional learners. Previously offered as ABSE 3202.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SPED 3623 Characteristics of Students with Mild/Moderate Disabilities
Prerequisites: SPED 3202.
Description: Educational, psychological, and physiological characteristics of individuals with mild and moderate disabilities. Professional roles of the teacher, professional ethics, and assessment of children with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 3683 Models of Instruction in the Inclusive Classroom
Description: Current techniques, models, and approaches used to teach students with mild-moderate disabilities and the theoretical bases for these techniques and approaches in inclusive classrooms will be presented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 3743 Planning, Compliance, and Current Practices in SPED
Prerequisites: SPED 3202 Teaching Exception Children.
Description: Examination of current and past policies and procedures that govern identification, referral, eligibility, and Individualized Education Programs of PK-12 students with disabilities. Current practices for planning and implementing instruction within a continuum of service delivery models. May not be used for degree credit with SPED 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 4723 Transition Into Adulthood for Individuals with Disabilities
Description: Strategies for preparing youth and young adults with disabilities for transitioning into adulthood. Previously offered as ABSE 4723. May not be used for degree credit with SPED 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 4753 Multi-tiered Classroom and Behavior Management
Description: Classroom and behavior management strategies designed to improve learning and behavior within instructional settings using multi-tiered systems of support. Previously offered as ABSE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5000 Master's Thesis
Description: Previously offered as ABSE 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 5123 Characteristics and Teaching Methods for Students with Autism Spectrum Disorders
Prerequisites: Graduate standing or permission of instructor.
Description: Designed to provide a foundation for understanding educational and psychological theory and best practices used in teaching students with Autism Spectrum Disorders (ASD). Characteristics and diagnostic procedures of ASD will be introduced, as well as such teaching methods as incidental teaching, visual supports, workstations, discrete trial teaching, and social stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5150 Seminar in Special Education
Description: Seminar topics will differ depending on interests and topics regarding Special Education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5320 Seminar in Applied Behavioral Studies
Description: In-depth exploration of contemporary problems of applied behavioral studies. Offered for variable credit, 1-24 credit hours, maximum of 24 credit hours.
Credit hours: 1-24
Contact hours: Lecture: 1-24 Contact: 1-24
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5573 Communication Strategies for Individuals with Severe and Profound Disabilities
Description: Methods for communicating with severely or profoundly disabled persons and for facilitating their communication through speech, sign, assistive devices and technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5620 Practicum with Exceptional Learners
Prerequisites: Consent of instructor.
Description: Supervised individual and group experience with exceptional learners. The particular experience (learning disability, mental retardation, gifted, etc.) determined by the student's field of specialization. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 5623 Characteristics of Students with Mild/Moderate Disabilities
Description: Educational, psychological and physiological characteristics of individuals with mild and moderate disabilities. Professional roles of the teacher, professional ethics, and assessment of children with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5633 Behavior Characteristics of Exceptional Individuals
Description: Individual differences and problems that exceptional individuals experience. Educational programs and resources available to assist administrators, teachers and parents in dealing with unique individual needs. Previously offered as ABSE 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5643 Working with Families of Students with Diverse Needs
Description: Aiding the classroom teacher and other professional personnel in the understanding of unique needs, cultural factors, and interpersonal relations involved in working with families of exceptional children and stakeholders. Previously offered as ABSE 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5673 Improving Literacy Skills of Individuals with Disabilities
Description: Normal language development and variations from norms demonstrated by exceptional learner. Assessment techniques and intervention strategies appropriate for exceptional infants and children; theoretical approaches to language training, formal and informal; assessment techniques and techniques for exceptional individuals. Previously offered as ABSE 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5683 Models of Instruction in the Inclusive Classroom
Description: Current techniques, models and approaches used to teach students with mild-moderate disabilities and the theoretical bases for these techniques and approaches in inclusive classrooms will be presented. Previously offered as ABSE 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5723 Transition Into Adulthood for Individuals with Disabilities
Description: Strategies for preparing youth and young adults with disabilities for transitioning into adulthood. May not be used for degree credit with SPED 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5733 Teaching Strategies for Students with Physical and Health Disabilities
Prerequisites: SPED 5523 and graduate student standing.
Description: Design and implementation of educational programs, collaboration with families and other professionals, and advocacy for students with disabilities. Previously offered as ABSE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5743 Planning, Compliance and Current Practices
Description: Current practices for planning and implementing instruction within a continuum of service delivery models. Examination of current and past policies and procedures that govern identification, referral, eligibility, and individualized Education Programs of PK-12 students with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5783 Assessing Students with Disabilities
Description: The practice and practicality of the assessment process used in schools for students with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5883 Classroom and Behavior Management
Description: Classroom and behavior management strategies designed to improve learning and behavior within instructional settings. Previously offered as ABSE 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5993 Culturally Responsive Teaching in Special Education
Description: Examination of the influence of ethnic, socioeconomic class, and gender factors on students with disabilities. Teaching attitudes and expectations, and curricular and instructional strategies for improving students' school performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6000 Doctoral Thesis
Description: Required of all candidates for doctorate in applied behavioral studies. Credit given upon completion and acceptance of thesis. Previously offered as ABSE 6000. Offered for variable credit, 1-12 credit hours, maximum of 25 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 6183 Legal Aspects in Special Education
Description: Familiarization and analysis of legal rights and responsibilities of students, educators, and administrators in special education; federal and state mandates, case law and recent legal developments affecting special education. Previously offered as ABSE 6183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6543 School and Interagency Collaboration
Prerequisites: Graduate student status or instructor permission.
Description: An advanced course to examine models for interdisciplinary teamwork in the design, delivery and evaluation of services for students with disabilities and at risk. Both school-based and interagency collaborative services and strategies for communicating with multiple stakeholders are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6603 Current Trends and Issues in Special Education
Description: Current research and literature regarding the education of exceptional children. Previously offered as ABSE 6603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6743 Single Subject Design in Special Education
Prerequisites: Consent of instructor.
Description: Conduct research utilizing single subject and single case study design with emphasis on special education. Advanced procedures in single subject research methodology, including design strategies and experimental control are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 6880 Internship in Education
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

Speech Communications (SPCH)

SPCH 2713 Introduction to Speech Communication (S)
Description: The practical and theoretical examination of the process of human communication involving a variety of contexts, including interpersonal relationships, small group discussions, and public speaking performances.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

SPCH 2890 Honors Experience in Speech
Prerequisites: Honors Program participation and concurrent enrollment in a designated SPCH course.
Description: A supplemental Honors experience in Speech Communication to partner concurrently with designated SPCH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

SPCH 3703 Small Group Communication
Description: General systems approach to small group processes. Special consideration given to group roles, norms, leadership and decision-making. Participation in various types of discussion groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3723 Business and Professional Communication
Description: Oral communication encounters in business and professional settings. The interview, informative briefing, talking-paper, small group interaction and informative, integrative and persuasive speeches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3733 Elements of Persuasion (S)
Description: An examination of current theory and research relevant to the process of persuasion and social influence in interpersonal, small group, mass media, and public settings. Includes a discussion of the practical implications of effective and ineffective persuasive strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

SPCH 3743 Advanced Public Speaking
Description: The preparation and delivery of various types of public speeches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3793 Communication in Interviews
Description: General principles of interviewing. Specific guidelines for the interviewer in survey, journalistic, counseling, selection, appraisal, legal, medical, and sales interviews.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3890 Advanced Honors Experience in Speech
Prerequisites: Honors Program participation and concurrent enrollment in a designated SPCH course.
Description: A supplemental Honors experience in Speech Communication to partner concurrently with designated upper-division SPCH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

SPCH 4010 Independent Study in Speech Communication
Prerequisites: Consent of instructor.
Description: Supervised research projects in speech communication. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

SPCH 4710 Topics in Speech Communication
Description: Selected current topics in speech communication. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

SPCH 4743 Problems of Interpersonal Speech Communication
Description: Application of communication theory to interactions in person-to-person settings. Identification and management of barriers related to the concepts of perception, attraction, self-disclosure, listening and conflict.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 4753 Intercultural Communication (G)
Description: Social and cultural differences between individuals from diverse backgrounds as possible barriers to effective communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: International Dimension

SPCH 4763 Organizational Communication
Description: The interface between communication theory and organizational structure. Nature of communication problems in organizations, strategies for overcoming such problems and the design of effective communication systems in organizational settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 4793 Nonverbal Communication (S)
Description: The study of current theory and research relevant to nonverbal behavior in interpersonal and professional relationships. Includes an examination of various nonverbal codes (e.g., body language, facial expressions) and the functions of nonverbal behavior (e.g., emotional expression, deception).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

Sports Media (SPM)

SPM 1883 Introduction to eSports
Description: This course introduces students to eSports. Students will learn about this history of eSports, the rapidly growing world of gaming, genres, streaming, lifestyle, careers, and the various eSports communities to understand how their different roles affect each other. We will begin to explore ways in which eSports are deeply rooted within media and broadcasting. Students will be able to demonstrate their ability to work as a group through team building exercises and effective team communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 2843 Sports and the Media
Prerequisites: Departmental majors only.
Description: An introductory course for sports media majors and an examination of the multibillion-dollar global sports industry. This course examines the state of the industry and professional careers associated with it. Topics include the evolution of sports media, racial, gender and inclusiveness issues in sports, multimedia sports journalism and ethics in the 21st century, sports communications and sports marketing. Course previously offered as JB 2843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 3500 Sports Media Internship
Prerequisites: SPM 3813 and MMJ 3153 or (SC 3353 and SC 3753) with a grade of "C" or better and consent of instructor; and pass proficiency review.
Description: Internship practice for qualified sports media students who seek creative communications experience beyond that available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Course previously offered as JB 3500. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SPM 3813 Sports Reporting for Multimedia
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or higher in both; and pass proficiency review.
Description: Provides an introductory reporting course specifically for aspiring professionals of major sectors of the multimedia sports industry (i.e., television, internet, public relations, newspapers, radio, social media and magazines). Students learn the basics of game summaries, keeping accurate statistics, conducting interviews, structuring print and electronic media stories, incorporating quotes in sports media content, all while adhering to AP style and ethical standards of journalism and communications professions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 3843 Contemporary Sports Issues
Prerequisites: MC 2003 and MC 2023 with grade of "C" or better in both; and pass proficiency review.
Description: This class will examine ethical and cultural considerations of the sports media as they pertain to case studies in sports promotion, NIL (Name, Image, and Likeness), sports gambling, drugs in sports, athletes and crime, privacy of athletes, gender and race in sports, international sports, labor issues in sports, and how the Internet is changing sports coverage.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 3863 Advanced Sports Reporting for Multimedia
Prerequisites: MMJ 3153 and SPM 3813 each with a grade of “C” or better; and pass proficiency review.
Description: Course builds upon SPM 3813 skills with introduction of sports anchoring skills, studio “sports debate” programs, extended audio stories (features and mini-podcasts) and video packages with companion print stories. Students will contribute these stories to student media productions and outlets. The course also discusses use of social media for professional purposes, online content creation, and current topics impacting multimedia sports journalism and professional ethics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 3880 Topics in eSports
Description: Special topics in the field of eSports such as: eSports history, on-air talent, broadcasting, competition management, program coordination, brand management, promotion and advertising. Course content varies by semester. Each topic covered in the course is intended broaden students' horizons on the scope of, and ability to participate in, the eSports universe. No credit for students with previous credit for this course with same subtitle. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4053 Sports Announcing
Prerequisites: MMJ 3153 and SPM 3813 with a grade of “C” or better; and pass proficiency review.
Description: Focuses on theory and practice of electronic media sports coverage, with an emphasis on the role, skills and practices of radio, TV, and online sports announcers. The class includes simulated play-by-play broadcasts and a class project. Course previously offered as JB 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4560 Specialized Sports Media Applications
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3153; each with a grade of "C" or better; and pass proficiency review.
Description: Professional sports media at an advanced level. Special topics in areas such as sports media production, announcing, performance; sports feature, column and editorial writing. Course content varies by semester. No credit for students in MC 5560 during same semester or with same subtitle. Course previously offered as JB 4560. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SPM 4813 Sports Media Production
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3153; each with a grade of “C” or better; and pass proficiency review.
Description: This course teaches creative editing and storytelling techniques specifically for the sports industry. Students produce promos, create highlight videos, and learn new software that is commonly used in the profession. Previously offered as JB 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4833 Sports Information
Prerequisites: SC 3353 or SPM 3813 with a grade of "C" or higher; and pass proficiency review.
Description: This course teaches skills needed to work in the sports information or sports public relations fields, particularly at the college level. Students will learn to write about a wide variety of collegiate sports while applying AP Style, proper grammar and effective storytelling. Students will also gain hands-on experience using social media in the sports information field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4853 Advanced Sports Writing
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3263 with a grade of "C" or better in each; and pass proficiency review.
Description: Advanced sports writing and reporting, which includes a wide variety of writing and reporting assignments, leading to an emphasis on enterprise and investigative reporting, as well as long-form features. Final projects should be of such quality to serve as the lead products in individual student portfolios. Same course as JB 3853 and SPM 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 4883 Sports Media Capstone
Prerequisites: SPM 3863 and MMJ 4393 each with a grade of "C" or better in both; and pass proficiency review.
Description: Capstone course for multimedia sports majors, giving them the opportunity to apply the skills they have learned to a final project that will be coordinated with a media outlet with the goal of publication. In addition, students will work on writing for print and electronic media, multimedia sports programming, management skills, and ethics and cultural issues in sports media. Course previously offered as JB 4883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

Statistics (STAT)

STAT 1013 Statistical Literacy (Q)
Prerequisites: Students must qualify for non-remediation of mathematics.
Description: This course focuses on statistical concepts and conclusions rather than on computations. Topics include descriptive measures, graphical representations, measures of center and variability, discussion of variability, sampling techniques, conditional probability interpretation and ramifications, confidence interval interpretation, practical vs. statistical significance, formulation and interpretation of hypothesis testing and p-values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2013 Elementary Statistics (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: An introductory course in the theory and methods of statistics. Descriptive measures, elementary probability, sampling, estimation, hypothesis testing, correlation and regression. Same course as STAT 2023 or STAT 2053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2023 Elementary Statistics for Business and Economics (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic statistics course for undergraduate business majors. Descriptive statistics, basic probability, discrete and continuous distributions, point and interval estimation, hypothesis testing, correlation and simple linear regression. Same course as STAT 2013 or STAT 2053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2053 Elementary Statistics for the Social Sciences (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: An introductory course in the theory and methods of statistics. Descriptive measures, elementary probability, sampling, estimation, hypothesis testing, correlation and regression. Same course as STAT 2013 or STAT 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2331 SAS Programming
Prerequisites: A different programming language or consent of instructor.
Description: SAS as a general purpose programming language, data representation, input/output, use of built-in procedures, report generation. Course previously offered as CS 2331.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 2890 Honors Experience in Statistics
Prerequisites: Honors Program participation and concurrent enrollment in a designated STAT course.
Description: A supplemental Honors experience in statistics to partner concurrently with designated statistics courses. This course adds a different intellectual dimension to the designated courses. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Honors Credit

STAT 3013 Intermediate Statistical Analysis
Prerequisites: STAT 2013, STAT 2023 or STAT 2053.
Description: Applications of elementary statistics, introductory experimental design, introduction to the analysis of variance, simple and multiple linear regression, nonparametric statistics, survey sampling and time series. Data analysis using Excel included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 3023 Statistical Reasoning for Medical Applications (Q)
Prerequisites: MATH 1483 or MATH 1513 or higher on an acceptable math placement score. See mathplacement.okstate.edu.
Description: This course focuses on developing the quantitative skills necessary for success in medical school and related activities. Topics include study design, descriptive measures, graphical representations, basic probability, statistical inference, correlation and regression, contingency tables.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 3033 Sports Analytics (Q)
Prerequisites: Any of the following: MATH 1483, or MATH 1513, or an equivalent college algebra course, or math placement score of 50 or higher.
Description: This course focuses on developing the quantitative skills necessary to analyze both sports performance metrics and sports business data. Topics include introduction to data ecosystems, building relational databases. data visualization techniques, computation and evaluation of performance metrics, exploring statistical relationships, predictive modelling, analytics in sports marketing. and data-driven decision-making in sports management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4013 Statistical Methods I (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic experimental statistics, basic probability distributions, methods of estimation, tests of significance, linear regression and correlation, analysis of variance for data that are in a one way, a two-way crossed, or in a two-fold nested classification. Same course as STAT 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4023 Statistical Methods II
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple regression in estimation and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4063 or STAT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4033 Engineering Statistics
Prerequisites: MATH 2133 or MATH 2163.
Description: Probability, random variables, probability distributions, estimation, confidence intervals, hypothesis testing, linear regression. No degree credit for students with credit in STAT 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4043 Applied Regression Analysis
Prerequisites: One of STAT 4013, STAT 4033, STAT 4053, STAT 5013 or equivalent.
Description: Matrix algebra, simple linear regression, residual analysis techniques, multiple regression, dummy variables, interactions, model building, introduction to logistic regression. This course explains fundamentals of linear regression and provides an introduction to logistic regression. May not be used for degree credit with STAT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4053 Statistical Methods I for the Social Sciences (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic experimental statistics, basic probability distributions, methods of estimation, tests of significance, linear regression, calculation and analysis of variance for one and two-way classifications. Same course as STAT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4063 Statistical Methods II for the Social Sciences
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4023 and STAT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4073 Engineering Statistics with Design of Experiments
Prerequisites: MATH 2163.
Description: Random variables and basic probability distributions, estimation, confidence intervals, hypothesis testing, basic analysis of variance, factorial arrangement of treatments and fractional factorial experiments, elementary quality control. No degree credit for students with credit in STAT 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4091 Sas Programming
Prerequisites: STAT 4013 or equivalent.
Description: SAS dataset construction, elementary statistical analysis, and use of statistics and graphics procedures available in SAS. No credit for students with credit in STAT 5091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4123 Probability Theory
Prerequisites: MATH 2163 and either MATH 2233 or MATH 3013.
Description: Basic probability, including conditional, marginal, and joint distributions. Random variables, moments, independences and dependence, common distributions, and distributions of functions of random variables.Course explains probability calculations, the usefulness of probability, and fundamentals required for obtaining sampling distributions. Useful in preparing for the actuarial P exam. May not be used for degree credit with STAT 4203, STAT 5123 and STAT 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4191 R Programming
Prerequisites: STAT 4013 or equivalent.
Description: R dataset construction, elementary statistical analysis, and use of statistics and graphics with R. May not be used for degree credit with STAT 4193, STAT 5191, STAT 5193.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4193 SAS and R Programming
Prerequisites: STAT 4013 or equivalent.
Description: SAS and R dataset construction, elementary statistical analysis, and use of statistics and graphics with SAS and R. May not be used for degree credit with STAT 4091, STAT 4191, STAT 5091, STAT 5191, STAT 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4203 Mathematical Statistics I
Prerequisites: MATH 2163 with a grade of "C" or better.
Description: Probability, random variables such as Poisson, Geometric, Hypergeometric, Uniform, Normal, Gamma, Beta, Exponential and their distributions, independence and correlation, multivariate distributions, marginal and conditional probabilities, functions of random variables, order statistics and their distributions, moment generating functions, the Central Limit Theorem. May not be used for degree credit with STAT 4123 and STAT 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4213 Mathematical Statistics II
Prerequisites: STAT 4203 or STAT 4123.
Description: Methods of estimating population parameters such as point and confidence interval estimation for a mean, proportion, and the difference between means and proportions, maximum likelihood methods, method of moments, hypothesis testing and its applications, sample size estimation, linear regression models, and categorical data analysis. May not be used for degree credit with STAT 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4463 Statistical Machine Learning with R
Prerequisites: STAT 4043.
Description: Computationally intense statistical methods for prediction and classification with R. Topics are bias-variance tradeoff; prediction and classification error; cross validation; bootstrapping; linear and logistic regression; discriminant functions; k-nearest neighbors; local and spline-based regression; generalized additive models; model selection and regularization; support vector machines; decision trees; principle component analysis; cluster analysis. May not be used for degree credit with STAT 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in statistics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics

STAT 4980 Internship in Statistics
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a Statistics-related professional work setting. Students must have an approved internship that will provide statistical experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics

STAT 4981 Statistics Capstone I
Prerequisites: STAT 4023, STAT 4043, STAT 4091 or STAT 4193; and STAT 4203 or concurrent enrollment.
Description: Information and preparation for graduate school for statistics undergraduates, communication skills for collaborating with scientists, introduction to research in statistics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4991 Statistics Capstone II
Prerequisites: STAT 4023 and STAT 4043 and STAT 4091 or STAT 4193; and STAT 4203 or concurrent enrollment.
Description: Career skills for statistics undergraduates entering the workforce, communication skills for collaborating with scientists.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors project under the direction of a faculty member, with a second faculty reader and an oral examination. Required for graduation with departmental honors in statistics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics
General Education and other Course Attributes: Honors Credit

STAT 5000 Master's Research
Prerequisites: Consent of advisory committee.
Description: Methods of research and supervised thesis or report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5002 Applied Masters Creative Component
Prerequisites: Consent of advisory committee.
Description: Creative component for Applied Masters in Statistics.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5003 Statistics for Medical Residents
Prerequisites: Employed as a medical or veterinary resident or permission of instructor.
Description: Survey of statistical methodology relevant to health care professionals. Basic understanding of statistics presented in recent medical literature. Hypothesis testing, ANOVA techniques, regression, categorical techniques. Same course as BIOM 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5013 Statistics for Experimenters I
Prerequisites: Graduate standing and MATH 1513.
Description: Introductory statistics course for graduate students. Descriptive statistics, basic probability, estimation, hypothesis testing, p-values, analysis of variance, multiple comparisons, correlation and linear regression, categorical data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5023 Statistics for Experimenters II
Prerequisites: Graduate standing and STAT 4023 or STAT 5013.
Description: Analysis of variance, contrasts and multiple comparisons, factorial experiments, variance components and their estimation, completely randomized, randomized block and Latin square designs, split plot experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5033 Nonparametric Methods
Prerequisites: One of STAT 4023, STAT 4043, STAT 5023 or consent of instructor.
Description: A continuation of STAT 4013 and STAT 4023, concentration on nonparametric methods. Alternatives to normal-theory statistical methods; analysis of categorical and ordinal data, methods based on rank transforms, measures of association, goodness of fit tests, order statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5043 Sample Survey Designs
Prerequisites: One of STAT 4013, STAT 4033, STAT 5013 or consent of instructor.
Description: Constructing and analyzing personal, telephone and mail surveys. Descriptive surveys including simple random, stratified random designs. Questionnaire design, frame construction, non-sampling errors, use of random number tables, sample size estimation and other topics related to practical conduct of surveys.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5053 Time Series Analysis
Prerequisites: STAT 4043.
Description: An applied approach to the analysis of time series in the time domain. Trends, autocorrelation, random walk, seasonality, stationarity, autoregressive integrated moving average (ARIMA) processes, Box-Jenkins method, forecasting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5063 Statistical Machine Learning with R
Prerequisites: STAT 5543.
Description: Computationally intense statistical methods for prediction and classification with R. Topics are bias-variance tradeoff; prediction and classification error; cross validation; bootstrapping; linear and logistic regression; discriminant functions; k-nearest neighbors; local and spline-based regression; generalized additive models; model selection and regularization; support vector machines; decision trees; principle component analysis; cluster analysis. May not be used for degree credit with STAT 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5073 Categorical Data Analysis
Prerequisites: STAT 5223, STAT 5023 or equivalent or concurrent enrollment.
Description: Analysis of data involving variables of a categorical nature. Independence/association test for contingency tables, exact tests for small counts, generalized linear models, logistic regression models for binary response variables, loglinear models for count data, analyses of ordinal variables, multicategory logit models for multiple category responses, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5083 Statistics for Biomedical Researchers
Prerequisites: STAT 5013.
Description: Analysis of variance, experimental designs pertaining to medical research, regression and data modeling, categorical techniques and the evaluation of diagnostic tests. No credit for students with credit in STAT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5091 Sas Programming
Prerequisites: STAT 5013 or equivalent.
Description: SAS dataset construction, elementary statistical analysis, and use of statistics and graphics procedures available in SAS. No credit for students with credit in STAT 4091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5093 Statistical Computing
Prerequisites: STAT 5223.
Description: Random variable generation; numerical calculations of maximum likelihood estimators, computer intensive exact tests; randomized tests; bootstrap and cross validation methods, Monte Carlo integration and simulation; Markov Chain Monte Carlo methods for Bayesian estimation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5123 Probability Theory
Prerequisites: MATH 2163 and one other course in MATH that has either MATH 2144 or MATH 2153 as a prerequisite.
Description: Basic probability, including conditional, marginal, and joint distributions. Random variables, moments, independences and dependence, common distributions, and distributions of functions of random variables. Course explains probability calculations, the usefulness of probability, and the fundamentals required for obtaining sampling distributions. Useful in preparing for the actuarial P exam.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5133 Stochastic Processes
Prerequisites: STAT 5123 and MATH 2233, MATH 3013.
Description: Definition of a stochastic process, probability structure, mean and covariance function, the set of sample functions, stationary processes and their spectral analyses, renewal processes, counting processes, discrete and continuous Markov chains, birth and death processes, exponential model, queuing theory. Same course as IEM 5133 & MATH 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5191 R Programming
Prerequisites: STAT 4013 or STAT 5013.
Description: R dataset construction, elementary statistical analysis, and use of statistics and graphics with R. May not be used for degree credit with STAT 4191, STAT 4193, STAT 5193.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5193 SAS and R Programming
Prerequisites: STAT 5013 or equivalent.
Description: SAS and R dataset construction, elementary statistical analysis, and use of statistics and graphics with SAS and R. May not be used for degree credit with STAT 4091, STAT 4191, STAT 4193, STAT 5191, STAT 5091.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5213 Bayesian Analysis
Prerequisites: STAT 5123 or STAT 5253 or STAT 4203 or consent of instructor.
Description: Bayes rule, fundamentals of Bayesian statistics, conjugate priors, posterior and predictive inference. Markov chain Monte Carlo, computation and software, hierarchical models, convergence diagnostics, Bayes factor, nonparametric Bayes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5223 Statistical Inference
Prerequisites: STAT 5123 and MATH 3013.
Description: Convergence concepts, Central Limit Theorem, sampling distributions, point estimation, maximum likelihood methods, Bayesian estimation, Cramer-Rao lower bound, confidence intervals. Hypothesis testing including Neyman-Pearson tests, uniformly most powerful tests, and generalized likelihood ratio tests. Course derives and explains testing and estimation included in introductory statistics courses. Useful for understanding assumptions and theory in common statistical methods. Previously offered as STAT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5253 Mathematical Statistics I
Prerequisites: MATH 2163 with a grade of "C" or better.
Description: Probability, random variables such as Poisson, Geometric, Hypergeometric, Uniform, Normal, Gamma, Beta, Exponential and their distributions, independence and correlation, multivariate distributions, marginal and conditional probabilities, functions of random variables, order statistics and their distributions, moment generating functions, the Central Limit Theorem. No credit for students with credit in STAT 4203 or STAT 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5263 Mathematical Statistics II
Prerequisites: STAT 5253 or STAT 4123.
Description: Methods of estimating population parameters such as point and confidence interval estimation for a mean, proportion, and the difference between means and proportions, maximum likelihood methods, method of moments, hypothesis testing and its applications, sample size estimation, linear regression models, and categorical data analysis. No credit for students with credit in STAT 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5303 Experimental Designs
Prerequisites: STAT 5023 or STAT 4023 with consent of instructor.
Description: Students will identify treatment structures and design structures, conduct the analyses of data from experimental scenarios, and interpret the results. The understanding and preparation of statistical analysis statements for publication are also covered. Analysis topics include: ANOVA, multiple comparisons, factorial experiments, complete and incomplete block designs, linear mixed models analysis (including repeated measures analysis), split-plot experiments, 2n and 3n factorial experiments, fractional factorial experiments, crossover designs, ANCOVA and SAS programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5323 Theory of Linear Models I
Prerequisites: STAT 5223, MATH 3013, and one of STAT 4023 or STAT 5023.
Description: Matrix theory (generalized inverse, idempotent matrix, and non- negative matrix results), multivariate normal distribution, quadratic forms, chi-square distribution, general linear models, estimability, general hypothesis testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5333 Theory of Linear Models II
Prerequisites: STAT 5323.
Description: Maximum likelihood estimation; one- way and two-way ANOVA models, multiple comparisons, regression models, linear mixed models, variance component estimation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5503 Statistical Literacy for Researchers
Prerequisites: MATH 1513.
Description: This course focuses on developing the statistical skills graduate students will utilize in deciphering the wealth of data available today. The course focuses on concepts and conclusions rather than on computations. Topics include descriptive statistics, basic probability, confidence interval, hypothesis testing and p-values, analysis of variance, design of experiments, categorical data analysis, multiple linear regression, logistic regression, and nonparametric statistics. This course cannot be used as a prerequisite for other statistics courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5513 Multivariate Analysis
Prerequisites: STAT 5323.
Description: Multivariate normal distribution, simple, partial and multiple correlation, multivariate sampling distributions. Wishart distribution, general T-distribution, estimation of parameters and tests of hypotheses on vector means and covariance matrix. Classification problems, discriminate analysis, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5543 Applied Regression Analysis
Prerequisites: One of STAT 4013, STAT 4033, STAT 4053, STAT 5013 or equivalent.
Description: Matrix algebra, simple linear regression, residual analysis techniques, multiple regression, dummy variables, interactions, model building, introduction to logistic regression. This course explains fundamentals of linear regression and provides an introduction to logistic regression. May not be used for degree credit with STAT 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5563 Statistical Methods II for the Social Sciences
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4023 and STAT 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5910 Seminar in Statistics
Prerequisites: Consent of instructor.
Description: Investigation of special problems in the theory and/or application of statistics using current techniques. Special studies for M.S. level students. Offered for variable credit, 1-6 credits. maximum of 3 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5980 Internship in Statistics
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a Statistics-related professional work setting. Students must have an approved internship that will provide statistical experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee.
Description: Directed research culminating in the PhD thesis. Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 6010 Statistics Literature
Prerequisites: Consent of instructor.
Description: Published journal articles from statistics or related areas are discussed. Previously offered as STAT 6001. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6013 Genetic Statistics
Prerequisites: Elementary Statistics or with the permission of the instructor.
Description: Course provides a statistical basis for analyzing genetic sequence data. Review of basic concepts in statistics including graphical and numerical methods, sample size estimation for biological experiments, and hypothesis testing. Review of basic concepts in genetics including DNA, genes, alleles, polymorphisms, SNP's. Descriptive statistics for genetic sequences, use of statistical tools for sequence analysis and statistical inference with R.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6113 Advanced Probability Theory
Prerequisites: STAT 5123 and MATH 5143.
Description: Measure theoretical presentation of probability, integration and expectation, product spaces and independence, conditioning, different kinds of convergence in probability theory, statistical spaces, characteristic functions and their applications. Previously offered as STAT 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6203 Large Sample Inference
Prerequisites: STAT 5223 and STAT 6113.
Description: Different types of convergence in probability theory, central limit theorem, consistency, large sample estimation and tests of hypotheses, concepts of asymptotic efficiency, nonparametric tests. Previously offered as STAT 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6223 Advanced Statistical Inference
Prerequisites: STAT 6113.
Description: Point estimation, maximum likelihood, Cramer-Rao inequality, confidence intervals, Neyman-Pearson theory of testing hypothesis and power of test. Previously offered as STAT 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6910 Special Problems
Prerequisites: Consent of instructor.
Description: Investigation of special problems in the theory and application of statistics using current techniques. Special studies for PhD level students. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

Strategic Communication (SC)

SC 2083 Digital Communication for Strategic Communication
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with a grade of "C" or better. 24 hours earned and SC maiors only.
Description: This course introduces students to Digital Communications in Strategic Communication. The course will focus on fundamental principles and skills of digital storytelling, including social media and video creation. Using multimedia tools, students will gain skills for visually communicating a strategic brand story through digital channels. There will be an emphasis on basic skill set, with a series of hands-on lessons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 2183 Introduction to Strategic Communications
Description: Strategic communication is crafting and delivering impactful messages that drive organizational success and plays a crucial role in shaping brand identity, managing crises, and putting stakeholders at the forefront of decisions. Create planned, purposeful, and powerful communications that resonate with targeted audiences and achieve strategic goals. Learn about communication in shaping public perception, building lasting relationships and navigating ethical complexities. Explore careers in advertising, public relations, corporate communications, and marketing. Previously offered as JB 2183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 2330 Industry Immersion in Strategic Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of 'C' or better in each, and pass proficiency review.
Description: This course will expose strategic communication (SC) majors to work environments related to their major. Through industry site visits in Oklahoma, students will network with professionals to observe, engage, and reflect upon the professional practice of strategic communicators. Students will observe SC practices and work cultures at advertising, marketing, and public relations agencies: corporate communication and government offices: and nonprofits. Professional development activities for job/internship searches. Variable credit, 1-3 credit hours, maximum of 6. Previously offered as SC 2333.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3050 Topics in Global Communication
Prerequisites: SC 2183 and MC 2003; and MC 2023 or SC 2083 or instructor permission with a grade of 'C' or better in each, and pass proficiency review.
Description: Global communication strategies at an advanced level. Strategic communication topics to center on contemporary global messaging and will vary. These will include agency, government, diplomatic, non-profit, corporate, sustainability and/or brand communication on a global stage. Students will prepare to navigate personally and professionally at a global level, examine worldwide communication issues, and develop critical thinking skills, knowledge and attitudes that will enable them to collaborate across cultural boundaries and lead with ethical and engaged citizenship. For 3 credit hours, Max: 9
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3353 Persuasive Writing for Strategic Communicators
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each, pass proficiency review.
Description: An examination of the language of persuasive communication, how persuasion works and the techniques of persuasive message strategy. Application of persuasive writing for traditional media and emerging digital media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

SC 3383 Strategic Communications Management and Strategies
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: Course explores account management techniques, tools, and advanced advertising and public relations strategies. Account executives focus on managing projects, people, clients, agencies, and crises. Strategic communicators must consider ways to effectively manage image, issues, and information. Students will learn and practice how to manage these effectively and to create, develop, implement, and evaluate effective communication strategies in various organizational contexts. Course previously offered as JB 3383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3443 Social Media Playbook
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: Every communicator knows the value of a solid social media presence, but how do you get one? This class focuses on social media strategy from the ground up. Students will learn how to leverage social media platforms, tools, and strategies to connect with audiences. Topics may include: building your brand on social; strategies for capturing and engaging target audiences; influencer marketing; planning social media campaigns; and optimizing strategies for earned, owned, and sponsored content.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3463 Event Planning and Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each or permission of instructor.
Description: This course covers the fundamentals of event planning from a strategic communications perspective. Teaches a variety of aspects involved in event planning including creating a vision and strategic plan, understanding various marketing strategies, budget management, networking, conference design, and assessment. Attendance of two events outside of class are required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3483 Nonprofit Communications
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: This course will offer an overview of branding and communications concepts, helping students approach branding in a way that builds commitment to their organization's mission, increases trust, creates ambassadors, and strengthens impact. Students will gain a basic familiarity with a variety of branding principles, fundraising techniques and develop strategic communication recommendations for an organization with which they are familiar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3600 Strategic Communications Internship
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both and consent of instructor; and pass proficiency review.
Description: Internship practice for qualified strategic communications students who seek creative communications experience beyond that available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Course previously offered as JB 3600. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 3603 Creative Strategies
Prerequisites: SC 2183, MC 2003 and MC 2023 or SC 2083 with a grade of 'C' or better in each, and pass proficiency review.
Description: This course emphasizes the development of creative strategies in advertising and public relations campaigns. It teaches students to think creatively to solve advertising and PR challenges and to effectively formulate the campaign's 'Big Idea.' Students will learn to innovate through brainstorming and concept development, integrating insights from target audience, market, and product research. Hands-on exercises in copywriting and design will enable students to apply creativity in various marketing contexts, culminating in a campaign board. Previously offered as JB 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3693 Social Media Analytics
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: This course introduces students to the fundamental principles and techniques of social media analytics, focusing on the collection, analysis, and interpretation of social media data for advertising and public relations purposes. Emphasizing practical, hands-on experience, students will learn to utilize programming languages like R to understand social media trends, audience behavior, and campaign effectiveness. However, pre-existing knowledge of programming languages is not required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3753 Graphic Design for Strategic Communication
Prerequisites: MC 2003 and MC 2023 or SC 2083, and SC 2183 with a grade of "C" or better in each, pass proficiency review.
Description: An analysis and application of graphic design elements in strategic communication to be used in traditional and new media. Instruction through weekly assignments, critiques, readings, lectures, and discussions. Creative and practical aspects of typography, color, composition, shape, and pattern, providing a foundation for interpreting and applying graphic design concepts in both print and digital media. Course encourages a self-directed and experimental approach, allowing students to engage with practical design projects and develop their creative skills. Course previously offered as JB 3753.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SC 3783 Strategic Sport Communication
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each; and pass proficiency review.
Description: Provides an overview and introduction to sport media consumption and communication within the sport industry. The primary focus of the course is on the role of strategic communication in all aspects of sport, fundamentals of sport publicity and promotional campaigns. Course previously offered as JB 3783 and SPM 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3953 Research Methods for Strategic Communicators
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and STAT 2013 or STAT 2053; and pass proficiency review.
Description: This course provides an overview of strategic communication research, emphasizing its application in developing and evaluating strategic communication strategies. Primary and secondary research are employed to understand target audiences, including consumers, stakeholders, and the public. The course outlines procedures for conducting a research project, engaging students in the research planning process, gathering primary data, and analyzing and parenting results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4013 Media and Markets
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and STAT 2013 or STAT 2053; and pass proficiency review.
Description: Introduction to the strategic use of media. Major principles of media planning and buying, audience measurement, media research, new media technology, and market segmentation. Course previously offered as JB 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4053 Study Abroad: Strategic Messaging
Description: Course involves participation in an international experience facilitated by Strategic Communication faculty. This course will involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political or economic issues. Students will develop global cultural competencies and professional preparedness through travel and engagement with the destination's citizens. Course assignments and discussions will focus on strategic messaging with focus on the perspective of the location and its social, cultural and/or political perspectives.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 4063 Creative Video for Digital Strategy
Prerequisites: SC 3353 and SC 3753 with grade of "C" or better and pass proficiency review.
Description: This course focuses on strategies for social media communicators, technical video productions skills, and creative principles required to plan, shoot, and edit impact videos for social media. Students will produce Impact Videos to promote clients' visual brand identity on social media platforms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4223 Media Sales and Marketing
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: The primary focus of this course is to learn to sell advertising time and space and gain insight into the professional sales process. Course will explore the role of sales in the marketing mix, the intricacies of the different local media available to advertisers, how to make effective sales presentations and the art of prospecting. Course previously offered as JB 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4383 Media Relations
Prerequisites: Senior standing, minimum graduation/retention GPA of 2.5.
Description: Strategies for dealing with the news media. Students will gain hands-on experience in conducting media news conferences, pitching story ideas and preparing themselves and other for dealing with news media interviews. Meets with MC 5383. No credit for students with credit in MC 5383. Course previously offered as JB 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4493 Strategic Writing for Content Creation
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: An advanced writing application course in creating, planning, researching, editing, and designing of multimedia content used in strategic communication. Previously offered as JB 4493.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

SC 4520 Specialized Strategic Communication Applications
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: Professional strategic communications at an advanced level. Strategic communications study of non-profit, corporate, agency, international and other specialized applications. Course content varies by semester. No credit for students with credit in MC 5520 during the same semester or with the same subtitle. Course previously offered as JB 4520. Offered for fixed 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 4603 Integrated Marketing Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183; or MKTG 3213 with a grade of "C" or better in each.
Description: Principles and practices of Integrated Marketing Communication/IMC. Examination of how various communication tools blend to create consistent and effective messages across multiple channels. Includes key elements of the promotional mix: advertising, public relations, direct marketing, and sales promotion. Students will learn basic IMC strategies that align with overall marketing goals and understanding target audiences, crafting compelling messages, and selecting appropriate communication channels. Intro to fundamental theories and current trends in marketing communication. Previously JB 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4653 Influencers, Promotions and Placements
Prerequisites: SC 2183 and MC 2003; and MC 2023 or SC 2083; with a grade of "C" or better in each; and pass proficiency review.
Description: Advanced practices in strategic communication focusing on influencer marketing, cross promotions and product placement. Students will learn to build authentic connections with audiences, generate buzz, and integrate brands into popular culture. Ideal for those aiming to innovate in advertising, marketing, public relations, and sport communication, this course offers a comprehensive understanding of how modern brands succeed in a competitive marketplace. Previously offered as JB 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4663 Professional Portfolio
Prerequisites: SC 3353 and SC 3753; or MMJ 4423 with a grade of "C" or better in each; or permission of instructor; and pass proficiency review.
Description: Designed to help students polish and present their design and creative work in an integrated package coupled with personalized identity materials. Emphasis will be on applying advanced visual and graphic communication theories to present an attractive and persuasive portfolio of creative work. It is intended for students who have completed a significant amount of course work in their field. An intermediate level of experience with desktop design software is assumed.. Course previously offered as JB 4663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SC 4843 Strategic Communication Campaigns
Prerequisites: SC 3953 and SC 4493; both with "C" or better; and pass proficiency review.
Description: Planning, preparation and presentation of comprehensive integrated strategic communication campaigns for national or local clients. Student teams produce all aspects of the campaign, from conception to presentation. Satisfies capstone requirements for strategic communication majors. Course previously offered as JB 4843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4940 Communication Competitions
Prerequisites: Instructor permission
Description: Course focuses on building the foundations for the Advertising Competitions course. It provides students with experience conducting primary and secondary research and executing the fundraising campaign. Working under a team concept on American Advertising Federation's (AAF) National Student Advertising Competition (NSAC), students will produce a detailed situation analysis, communications audit, primary and secondary research identifying problems and opportunities, and target audience analysis. Students accepted by application and interview.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4980 Advertising Competitions
Prerequisites: Consent of instructor.
Description: Gain real-world experience on a team developing an integrated advertising campaign for the prestigious American Advertising Federation (AAF) National Student Advertising Competition (NSAC). Through extensive research, strategic planning, and creative execution, students will apply their advertising knowledge and skills and develop expertise in branding, marketing, media strategy, and campaign materials. Admission is by application. This course offers hands-on learning, professional mentoring, and the opportunity to showcase your work regionally and nationally. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

Theatre (TH)

TH 1223 Acting Fundamentals for Non-Majors
Description: This acting course introduces students to fundamental acting techniques. Through lecture and application, students will focus on observation, improvisation, and performances, learning to effectively express themselves orally and physically, develop empathy, enhance communication skills, nurture creativity, and build leadership and teamwork abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1301 BFA Acting Laboratory
Description: The BFA Acting Laboratory is a course designed to give students the opportunity to explore concepts from their acting class in a laboratory environment. Using group problem-solving techniques, students will create weekly performances, critically respond to others performances and develop a sense of community within the BFA environment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1310 BFA Movement Laboratory 1
Description: The BFA Movement Laboratory is a course designed to give students the opportunity to explore concepts from their movement class in a laboratory environment. Students will be developing and strengthening their physical instrument (mind, body, voice) through rigorous physical investigation including yoga, tai chi, circuit training, circus, acrobatics, strength training, kinesthetic awareness and flexibility. Previously offered as TH 1311. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lab: 2-8 Contact: 2-8
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 1323 Acting I - Fundamentals of Acting
Description: An introduction to the craft of acting for performance: ensemble techniques, vocal and physical development for the actor, fundamental scene and character analysis, basic audition techniques, and scene performance workshops. No previous experience necessary. Previously offered as TH 1322.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1330 BFA Movement Laboratory 2
Description: The BFA Movement Laboratory 2 is a course designed to give students the opportunity to explore advanced concepts from their movement class in a laboratory environment working in ensemble. Students will be developing and strengthening their physical instrument (mind, body, voice) through rigorous physical investigation including partner yoga, adagio, advanced circus, advanced acrobatics, dramatic acrobatics, long form tai chi and mask work. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 1333 Voice for the Actor
Description: Study of the skills required to develop an expressive, resonant voice, and Improved speech on and off the stage. The class will focus on freeing the breath, the release of physical tenslon, the flexibility of the voice, and application of vocal and physical variety as It pertains to the impulse to speak. Content includes vocal anatomy, methods to prevent vocal Injury, and an Introduction of the International Phonetic Alphabet.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1403 Musicianship for the Singing Actor I
Prerequisites: Theatre major, Musical Theatre Major.
Description: This course develops core musical skills that actors need for interacting with a score-based art form. Topics include critical listening, aural skills, and improvisation as well as reading and writing musical notation. Focusing on practical needs in the industry, students develop skills in keyboarding, conducting, and audio production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1413 Musicianship for the Singing Actor II
Prerequisites: TH 1403 or Instructor Permission.
Description: This course builds advanced musical skills following the basics acquired in Musicianship for the Singing Actor I. Students learn sight-singing, ensemble collaboration, back-phrasing, and recitative. Focusing on practical needs in the industry, students develop skills in keyboarding, conducting, and audio production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1500 Run Crew Practicum
Description: Practical application of run crew duties by participation in technical rehearsals and performances for a Theatre Department Production. Offered for fixed 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 1663 Stage Technology
Description: An introduction to technical concepts for theatrical productions in the performance and entertainment disciplines. Lectures provide preparatory principles, concepts, and theory; laboratory hours teach hands-on skills needed in the technical production environment including scenographic elements and fabrication. Course previously offered as TH 1664.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 1673 Costume Technology
Description: An introduction to technical concepts for theatrical productions in the performance and entertainment disciplines. Lectures provide preparatory principles, concepts, and theory; laboratory hours teach hands-on skills needed in the costume production environment including hand and machine sewing and pattern making. Previously offered as TH 1674 and TH 2673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2213 Dialects and Accents for Stage and Screen
Prerequisites: TH 1333 Voice and Movement.
Description: The study and practice of dialects and accents most frequently required by American actors. The course will Include the study of the cultural impact on speech and dialect acquisition. Students will be expected to use the International Phonetic Alphabet for transcriptions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2320 Performance Lessons I
Prerequisites: BFA Musical Theatre major or instructor permission.
Description: This one-on-one vocal coaching focuses on learning and performing musical theatre song as well as other popular styles encountered by the modern singing actor (jazz, pop, rock, country). Emphasis is on healthy singing, musical style, developing practice routines, and analyzing music and lyrics. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2323 Acting II - Character Development
Prerequisites: TH 1323.
Description: A continuation of the actor's process to the intermediate level. Content will include further character study, scene analysis, Improvisation, and applied Stanlslavski based techniques. Scene work will focus on truthful behavior through imaginary circumstances on the stage, including extreme circumstances, using active or event analysis. Audition techniques will be further developed. Students will see OSU Theatre Department or professional productions and write critical responses to that work.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2413 Introduction to Staged Entertainment (H)
Description: Explores storytelling through performance and how staged and filmed performances create and convey meaning in western society. Attendance of productions and study of acting, directing, entertainment technology, dramatic structure, and artistic movements. For non-majors; no prior theatre experience necessary.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 2500 Production Crew Practicum
Description: Laboratory experience in the theatrical production process through participation on a production crew for a department production or semester. Course previously offered as TH 1501. Offered for variable credit,1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 2553 Fundamentals of Theatrical Design
Description: A comprehensive exploration of the essential principles, theories, and practices in theatrical design for performance and entertainment disciplines. Students will be equipped with the foundation of the creative processes that bring performances to life by crafting compelling and immersive storytelling by means of design. Through a blend of lectures, practical projects, and critical analysis, students will cultivate the solid skill sets of an ideal theatrical designer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2563 Script Analysis
Description: The study of writing for performance from the point of view of entertainment professionals, including directors, designers, performers and technicians. Course focuses on the techniques necessary for the translation of the written text into production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2593 Lighting Technology
Description: An introduction to the principles and practices of stage lighting in performance and entertainment disciplines. Includes theoretical explorations and hands-on practice of elementary electricity, mechanics of lighting equipment, and artistic aspects of lighting technology that enhance performance and entertainment productions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2633 Movement for the Actor
Prerequisites: TH 1323 Acting I.
Description: This is an introductory course to the physical aspects of role creation. It introduces the student to a variety of methodologies to increase somatic awareness used in analyzing and altering physical performance for the stage. The students will be evaluated on the application of theories discussed and demonstrated in class.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2753 Stage Management
Description: An introduction to stage management for the performing arts. Emphasis on basic stage management skills, professional etiquette, and incorporation of digital tools and documentation. Overview of stage management relationships with other departments, timelines of productions, and application of stage management skills in other areas of performance and entertainment disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2833 Transition to Professions in Design and Technology
Prerequisites: TH 1663 and TH 1673; and TH 1500 or TH 2500.
Description: Preparation for transition into the professional world for theatre designers and technicians. Includes career development, national/international theatre organizations, portfolio preparation, websites, resume/application writing and interviewing. Course previously offered as TH 3533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2971 Stage Makeup
Description: Techniques of basic stage makeup. Application of makeup including a study of facial anatomy and character development. Laboratory work in preparation for departmental productions. Course previously offered as TH 3971.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 3183 Theatrical Scenic Design
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: Approaches to designing scenery for performance and entertainment disciplines. Through lectures and practical exercises, students will learn to create visually compelling environments by integrating research and conceptual analysis. Focusing on the entire design process, including technical considerations and collaboration, students will develop the skills needed to become a successful theatrical scenic designer. Previously offered as TH 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3203 Musical Theatre Vocal Styles I
Prerequisites: TH 1403 or Instructor Permission.
Description: This course explores the musical features and vocal styles represented in early 20th century Musical Theatre literature including operetta, Golden-Age, and musical comedy. Core topics include tone, diction, phrasing, and vibrato as well as the physicality and movements associated with a style period. Students apply these styles and techniques to their own performance. The course includes critical viewing and listening of musical theatre repertoire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3233 Musical Theatre Vocal Styles II
Prerequisites: TH 1403 or Instructor Permission.
Description: This course explores the musical features and vocal styles represented in the second half of the 20th century musical theatre literature, extending to contemporary works, including rock, pop, county, and folk. Core topics include tone, diction, phrasing, and vibrato as well as the physicality and movements associated with a style period. Students apply these styles and techniques to their own performance. The course includes critical viewing and listening of musical theatre repertoire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3320 Performance Lessons II
Prerequisites: TH 2320 and Instructor Permission.
Description: Building on Performance Lessons I, this upper-level one-on-one vocal coaching explores the synthesis of music and lyrics within theatre song as well as popular styles encountered by the modern singing actor (jazz, pop, rock, country). Emphasis is on advanced techniques in vocal style, musical phrasing, lyric analysis, diction, and performance. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3323 Theatrical Sound Design and Technology
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: A comprehensive exploration of creating immersive and impactful sound environments for performance and entertainment disciplines. Students will acquire the skills needed to design, implement, and manage sound for theatrical productions using various technologies and techniques. Previously offered as TH 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3343 Acting for Musical Theatre
Prerequisites: TH 1323 or Instructor's permission.
Description: Acting for Musical Theatre is a performance-oriented course in which students will apply fundamentals of acting to musical theatre song. Students will workshop and perform musical theatre songs of multiple genres and develop skills in acting, and movement. This course will be a combination of lecture and practical application of learned concepts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3373 Acting III - Shakespeare
Prerequisites: TH 1323 and TH 2323 or consent of instructor.
Description: Designed to provide a foundational understanding and working knowledge of many of Shakespeare's plays, this course will use a combination of both lecture and action-based studio work to expand and refine the actor's skills. Physical and vocal techniques needed to perform classical verse plays will be included. Course previously offered as TH 4143.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3400 Upper-Division Projects
Prerequisites: Consent of instructor.
Description: Individual or group study of techniques, history, or literature of the theatre. Required project or term paper. May not be used for degree credit with TH 5400. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 3433 Acting for the Camera
Prerequisites: TH 1323 and TH 2323 or consent of instructor.
Description: An introduction to acting with electronic media technology. Through a series of exercises and scenes students will become familiar with the similarities and differences of acting on stage and with technology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3500 Theatre Practicum II
Prerequisites: Consent of instructor.
Description: Advanced laboratory experience in theatre production, design, acting, and/or major crew assignments. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 3503 Digital Branding for the Performer
Description: This course surveys the development of radio, television, cable/satellite, and digital media, including the Internet and how it affects the modern actor. We will focus on how technology and industrial control of the electronic media shape an actor's content. The purpose of this course is to provide you with a solid understanding of how the electronic media function in modern life in terms of the social, political, and cultural impact for the actor. Students will be utilizing film, editing software, social media, website design to create content and audition reels.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3530 Topics in Performance
Prerequisites: Consent of instructor.
Description: Specialized topics in acting or directing. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3593 Theatrical Lighting Design
Prerequisites: TH 2593, TH 2553, and TH 2563 or consent of instructor.
Description: Approaches to the principles and techniques of lighting design for performance and entertainment disciplines. Students will learn to research, conceptualize, and execute lighting design through a combination of theoretical study and practical application. Previously offered as TH 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3633 Diverse American Drama (DH)
Description: Survey of dramatic literature and theatre created by diverse dramatists and theatre companies in the United States. Course focus may either be a broad investigation of drama across many different identity groups or an in-depth exploration of the theatrical activity of one group of people.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

TH 3822 Advanced Stage Movement
Prerequisites: TH 2633 or instructor's permission.
Description: This course investigates kinesthesia In the actor through a progression of exercises that strengthen physical agility, listening, and responding. The student will deepen the connection between impulse and action through mask, physical comedy, biomechanics, and plastique training. Students will liberate the right-brained imagination for transformative performance, preparing the student for In-depth exploration of character development, with emphasis on ensemble collaboration.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 3823 Advanced Voice for the Stage
Prerequisites: TH 1333.
Description: This course is a continuation of the development and practice of skills in breathing, phonation and resonance, with added attention being paid to the analysis, expression and pronunciation of elevated and/or poetic drama. Students will also investigate how different acoustical spaces require different vocal techniques needed for the amplification of the voice.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3843 Musical Theatre Scene Study
Prerequisites: TH 2343 or Instructor Approval.
Description: Musical Theatre Scene Study is an advanced performance course focusing on musical theatre scenes. This course will be a combination of lecture and practical application of learned concepts, focusing on navigating the transition between scene and song.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3853 Auditioning
Prerequisites: TH 3843 or TH 3373 or Instructor's permission.
Description: This course wIll develop the tools necessary for professional development and pursuit of work as a theatrical performer. Students will prepare for and experience practical musical and non-musical in-person and video auditions. Main topics Include self-tapes, casting, networking, and booking work. Emphasizing professional readiness, students create a professional portfolio-resume, headshots, audition book, and website. Course previously offered as TH 4853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3863 Auditioning in Musical Theatre
Prerequisites: TH 2343 or instructor approval.
Description: The goal of this course is to teach students the skills and aspects of professional musical theatre auditions. Students in this course will learn the elements of auditioning in musical theatre and how to build a complete audition book. They will be given guidance and feedback about cover letters, resumes and headshots and basic information about the professional world. Finally, students will test out their skills with multiple mock audition opportunities.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3873 History of Musical Theatre (H)
Description: Musical Theatre History is a survey course of the American musical theatre tradition, exploring representative shows, creators, and performers that trace the evolution of this unique American art form from its origins to contemporary Broadway and pop culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3923 World Theatre History Before 1800 (H)
Description: Aesthetic and social relationships of the dramatic arts and world cultures from Ancient Greece to the 19th century. Course previously offered as TH 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3933 World Theatre History After 1800 (H)
Description: Aesthetic and social relationships of the dramatic arts and world cultures from the 19th century to the present. Course previously offered as TH 3123. May be taken prior to TH 3923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3953 Theatrical Costume Design
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: Approaches to costume design for performance and entertainment disciplines through research, conceptual analysis, figure drawing, and execution of sketches and renderings. Previously offered as TH 4973.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4303 Ensemble Theatre
Description: Ensemble Theatre is an alternative approach to creating that emphasizes collaborative ensemble-based writing, community research and outreach, and social and political awareness. Utilizing improvisational techniques, community-oriented research skills and non-textual performance practices, students will explore and create theatre based on their communities, interests and concerns.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4320 BFA Voice Lessons III
Prerequisites: TH 3320.
Description: This course is a continuation of private vocal instruction for students nearing completion of the Musical Theatre BFA degree. Building on the skills learned in BFA Voice Lessons II, students will explore advanced techniques of color and style within the musical theatre genre, continuing to develop their vocal instrument and performance skills. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4353 Acting IV - Advanced Scene Study
Prerequisites: TH 2323 or Instructor's permission.
Description: An advanced scene study acting laboratory to sharpen the actor's process for professional preparation. This course explores acting pedagogy and techniques which synthesize all previous acting levels, providing a timely capstone experience as the student actor prepares to enter the profession.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4382 Staged Combat and Physical Acting
Prerequisites: TH 2633 or Instructor's permission.
Description: Advanced application of the actor's movement skills to the unique requirements of theatrical forms that Incorporate stage violence or physical comedy. Applied skills include hand-to-hand combat armed combat, and may include tumbling, gymnastics, clowning, mask work, or ethnic arts. Previously offered as TH 4383.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 4403 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis or performance under the direction of a faculty member, with second faculty committee member. Required for graduation with departmental honors in theatre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4423 Professional Preparation for Performance
Prerequisites: Must have completed 72 credit hours or Instructor's permission.
Description: This course will prepare students to make the transition from academic theatre to professional theatre. Students will research what is currently happening in the industry, and develop the skills needed to be a working professional Other topics will include the business aspects of a career in theatre, a plan for personal financial health, the business of creating and producing theatre work, creating a relocation plan to a potential arts market and the graduate school process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4630 Topics in Design and Technology
Prerequisites: TH 1663, 1673 and 2553 or consent of instructor.
Description: Specialized topics in scenic, costume, sound, or lighting design or technology. Course previously offered as TH 3630. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4653 Advanced Stage Technology
Prerequisites: TH 1663.
Description: Advanced study in technical concepts for productions in the performance and entertainment disciplines. Lectures provide principles, concepts, and theory; laboratory hours offer advanced hands-on skills needed in the technical production environment including unique scenographic elements and advanced fabrication techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4673 Advanced Costume Technology
Prerequisites: TH 1673.
Description: Advanced study in technical concepts for costuming in the performance and entertainment disciplines. This course explores principles, concepts, and theory with hands-on skills needed in a costume production environment including historical costume elements and advanced fabrication techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4753 Advanced Stage Management
Prerequisites: TH 1500 and TH 2753 or consent of instructor.
Description: Advanced procedures and leadership skills of effective stage management for performance and entertainment disciplines. Principles of efficient management of rehearsals and performances, collaboration with artistic team members to execute and maintain creative vision, and exploration of stage management roles in various entertainment fields. May not be used for degree credit with TH 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4953 Directing
Prerequisites: TH 1323 and TH 2563 and TH 4753 or consent of instructor.
Description: Script analysis for production, problems in staging, and the role of the director. Planning and direction of scenes in laboratory situations. May not be used for degree credit with TH 5953.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4983 Theatrical Scenic Painting
Prerequisites: TH 1663 or consent of instructor.
Description: Explores the various tools, materials, techniques, and processes used in scenic painting for performance and entertainment disciplines. Through research and practical experience, students will acquire the skills necessary to implement theatrical painting techniques per designer specification.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 4990 BFA Capstone
Prerequisites: TH 2320 (4) and TH 3320 (3).
Description: In this course, students demonstrate mastery of singing and acting through memorized songs in the form of a recital, cabaret, or other creative project. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 5000 Master's Thesis and Research
Prerequisites: Consent of department head.
Description: Master's level research in theatre for thesis option graduate students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5100 Master's Creative Component and Research
Description: Master's level research in theatre for creative component option graduate students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5113 Theatre History and Theory I
Description: Global study of theatre and performance across cultures and multiple theories used to interpret and construct world theatre history, from ancient times to the nineteenth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5240 Topics in Advanced Acting
Description: Specialized topics in advanced acting. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-2 Lab: 0-2 Contact: 1-4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5313 Dramaturgy
Description: Advanced investigation of the nature and process of dramaturgy. Emphasis on dramaturgical research and writing. No credit for students with credit in TH 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5383 Action Acting
Description: This course introduces the student to stage violence. Emphasis is placed on safe and dramatically effective performance of violent scenes, to include slapstick and physical comedy. Stage/screen fencing, unarmed combat, basic tumbling, physical comedy, and theatrical firearms are covered within the context of scene work. May not be used for degree credit with TH 4383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5400 Seminar in Theatre
Description: Individual or group studies of techniques, history or literature of the theatre. A term paper or written report and self-evaluation of the study or project required. Cannot receive credit for both TH 3400 and TH 5400. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5500 Individual Theatre Projects
Prerequisites: Consent of instructor.
Description: Individual projects in directing, acting, or design and technology for a specified theatre production, with concept, realization, and self-evaluation under faculty guidance. Course previously offered as TH 5090. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5513 Theatre History and Theory II
Description: Global study of theatre and performance across cultures and multiple theories used to interpret and construct world theatre history, from the nineteenth century to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5600 Seminar in Dramatic Literature
Prerequisites: Consent of instructor.
Description: Selected topics in dramatic literature. Texts and themes will vary by semester. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5673 Advanced Costume Construction
Description: Advanced construction of techniques for theatrical costumes. Includes period garments, pattern drafting, fabric manipulation, and boning. May not be used for degree credit with TH 4673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5753 Stage Management
Description: Procedures and skills of effective stage management. Authoritative coordination of performers and technicians during rehearsal and performance periods. Maintenance and use of the production prompt book, notation of ground plan and blocking; scene shifts; cues for lighting, sound, special effects, and performers; opening and calling the show; post-show wrap-up. May not be used for degree credit with TH 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5953 Problems in Advanced Directing
Description: Problems in directing styles, especially Shakespeare, comedy, and absurdist drama. Preparation, rehearsal and staging of a complete production by each student. May not be used for degree credit with TH 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

University (UNIV)

UNIV 0113 Developmental Science Process Skills
Description: Study and investigate the natural world. Emphasis on critical thinking processes. Observation, classification, metric measurement, data table construction, graph construction, and interpretation. May be used to fulfill the science remediation requirement as established by State Regents policy. This course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Course offered and transcripted by Northern Oklahoma College.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0123 Pre College Algebra
Prerequisites: ACT Subscore Math 1-16.
Description: In-depth coverage of applications of factoring, arithmetic operations with polynomial and rational algebraic expressions, review of laws of exponents (integers, fractions), simplifying radical linear equations in two variables. May be used to fulfill the mathematics remediation requirements as established by State Regents policy. This course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Course offered and transcripted by Northern Oklahoma College. Previously offered as MATH 0123 and MATH 1213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0133 Basic Composition
Description: Intensive instruction in sentence and paragraph structure, punctuation, grammar and word usage. May be used to fulfill the English remediation requirement as established by State Regents policy. This course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Course offered and transcripted by Northern Oklahoma College.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0143 Improving College Reading Skills
Description: Instruction to improve reading comprehension, vocabulary building, study and reference skills, and critical thinking. May be used to fulfill the reading remediation requirements as established by State Regents policy. This course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Course offered and transcripted by Northern Oklahoma College.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0151 Supplement for Introductory Science
Prerequisites: Concurrent enrollment in a designated natural science (N) course.
Description: This course provides supplemental instruction for a designated natural science (N) course for students who do not meet entrance requirements for college-level science coursework. Students must be enrolled concurrently in a designated natural science (N) course. This supplement includes reviewing and learning basic reading skills, then applying those skills to science content. May be used to fulfill the science and reading remediation requirements as established by Oklahoma State Regents policy. The course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Same course as UNIV 0153.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0153 Critical Content Reading and Scientific Reasoning
Description: Course in reading consisting primarily of reviewing and learning basic reading skills, then practicing and applying those skills to content area reading. May be used to fulfill the science and reading remediation requirements as established by Oklahoma State Regents policy. The course is not acceptable for degree credit at Oklahoma State University. Graded on a satisfactory-unsatisfactory basis. Course offered and transcripted by Northern Oklahoma College.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 0163 Critical Reading with Science Reasoning and Writing
Description: Students with Reading and/or English ACT scores < 19 must enroll in this course. They cannot enroll in Composition I. This course replaces UNIV 0133 (the former Basic Composition) and UNIV 0153 (the former Critical Reading) courses. Students must successfully complete this course with a 70%. Course offered & transcripted by Northern Oklahoma College.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

UNIV 1111 First Year Seminar
Prerequisites: Designed for incoming undergraduate students.
Description: Aids students in becoming aware of campus resources, academic programs, and cocurricular offerings, exploring various majors and careers; understanding university academic rules and regulations; and enhancing study skills and attitudes that can contribute to academic success. Previously offered as AG 1011, ARCH 1112, A&S 1111, BADM 1111, BAE 1012, EDHS 1112, and ENGR 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 1133 Introduction to Leadership in Practice
Description: Introduction to ethical leadership concepts, theories, and competencies, introduced through the study of leadership, civic engagement, and ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 1311 McKnight Scholars Colloquium I
Prerequisites: Selection to McKnight Scholars Leadership Program.
Description: Develop and improve ability to identify values, envision the future, build strong relationships, encourage others, and to make a lasting contribution to society through applications of ethical leadership.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 2001 Academic Assessment and Evaluation
Description: Required for students in University Academic Assessment Program and available campus wide to students on academic probation. Identification of reasons for experiencing academic difficulty; assessment of reading ability and individual learning styles; understanding university policies and procedures and current issues in American education; development of goals, attitudes, and study skills needed to achieve academic success; and exploration of careers, majors, and alternative educational experiences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 2133 Ethical Leadership Behavior in a Changing Society (S)
Description: This course equips students to integrate leadership theories and empirical methods to address complex issues through social and behavioral sciences. Emphasizing the Social Change Model, students analyze human behavior, apply real-world leadership concepts, and foster ethical behavior and collective action for positive social change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College
General Education and other Course Attributes: Society & Human Behavior

UNIV 2311 McKnight Scholars Colloquium II
Prerequisites: Selection to McKnight Scholars Leadership Program.
Description: Informed by two leadership theories, transformational leadership theory and the culturally relevant leadership learning model, each student will grow their leadership efficacy and their critical thinking and decision-making skills as a leader.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 2510 Innovative Studies
Description: May be used for not more than two semesters for new or experimental topics or techniques. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 2511 Introduction to Health Careers
Description: 8-week course includes an overview and dialogue about all professional roles in healthcare. We include health profession guest speakers and activities to help you explore various options and validate your health profession interest. All levels of OSU students are welcome (Freshman-Senior if you are still exploring/deciding). Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 2611 Health Portfolio and Self-Development
Description: 8-week course designed for all OSU students who are 100% confident of their healthcare pathway and are ready to learn and plan how to grow into a holistically competitive future applicant. The course includes individual and group activities along with mentorship to prepare academically and non-academically for all professional healthcare schools. All levels of OSU students are welcome (Freshman-Senior). Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 2910 Niblack Research Scholars
Prerequisites: Current recipient of the Niblack Research Scholar Award.
Description: Scientific research in a laboratory environment at an early stage of an academic career. Offered for fixed, 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 3001 Academic Assessment for Transfer Students
Description: Required for students in transfer probation program and available campus wide to upper division students on probation. Assessment of individual learning ability and learning styles; understanding university policies and procedures related to transfer students and current issues in American education; development of goals, attitudes, and study skills needed to achieve academic success; and exploration of careers, majors, and alternative education experiences. No credit for student with credit in UNIV 2001.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 3090 National Student Exchange Plan B
Prerequisites: Consent of the Study Abroad/NSE Office. Participation in an OSU exchange on NSE Plan B exchange program.
Description: UNIV 3090 National Student Exchange Plan B. 1-19 credits, max. 38.
Credit hours: 1-19
Contact hours: Contact: 1-19 Other: 1-19
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 3110 Directed Study
Prerequisites: Written application approved by instructor, the department head, and the dean of the student's college.
Description: Independent study, research, field work or internship. Some sections will be graded on a pass-fail basis. Offered for variable credit, 1-18 credit hours, maximum of 18 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 3311 McKnight Scholars Experiential Learning
Prerequisites: Selection to McKnight Scholars Leadership Program.
Description: McKnight Scholars Program experiential leadership course will provide students with guidance and information to help them be the most effective life-giving community leader they can be.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 3413 International Perspective in Ethical Leadership for McKnight Scholars
Prerequisites: Selection to McKnight Scholars Leadership Program / Instructor Approval.
Description: International travel course that will study ethical leadership, culture, social change model of leadership, and leadership cultural competencies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 3423 International Perspective in Ethical Leadership for PLC
Prerequisites: Selection to President's Leadership Council (PLC) / Instructor Approval.
Description: International travel course that will study the social change model of leadership, the culturally relevant leadership learning model, ethics, culture, and activism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 3511 Health Profession School Preparation
Prerequisites: Highly Recommended: Junior/senior pre-health students.
Description: 6-week course designed for all OSU students who are holistically prepared to apply for a masters or doctoral healthcare program within that year. The course includes individual and group mentorship in the application and interview process, professional exam preparation and other important resources to help support a successful professional application submission and interview. Recommended for students who are applying to professional school within a year. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 3910 Niblack Research Scholars - Advanced
Description: Second year Niblack Research Scholar performing advanced scientific research in a laboratory environment. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lab: 2-18 Contact: 2-18
Levels: Undergraduate
Schedule types: Lab
Department/School: University College

UNIV 4511 Application of Ethical Leadership
Description: Supervised fieldwork experience in leadership and service learning in a community setting.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

UNIV 4950 Application of Ethical Leadership
Prerequisites: Consent of instructor.
Description: Supervised field work experience in leadership and service learning in a community setting. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: University College

UNIV 4963 Ethical Leadership for the Common Good
Prerequisites: Selection to President's Leadership Council (PLC) / Instructor Approval.
Description: Intentional reflection on leadership experiences in our time at Oklahoma State so that students may be equipped with leadership skills that may be applied to life post-graduation. All assignments are connected to development of life-giving leaders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: University College

Veterinary Clinical Sciences (VCS)

VCS 7000 Clinical Sciences Elective III
Description: This is a subspecialty elective course in veterinary medical clinical training. Graded on a pass/fail basis. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7002 Anesthesiology I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of clinical anesthesia in various domestic species. Previously offered as VCS 7843. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7012 Anesthesiology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of clinical anesthesia in various domestic species. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7022 Cardiology II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Students will take part in outpatient receiving including history taking, cardiovascular examination, forming a problem list, case assessment and treatment plan. Students will be responsible for preoperative and postoperative care of patients as well as the care of all hospitalized patients. Students will also assist with after-hours cardiology emergencies and share EMS and isolation ward duties. Previously offered as VCS 7913. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7032 Cardiology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Students will take part in outpatient receiving including history taking, cardiovascular examination, forming a problem list and case assessment and forming a treatment plan. Students will be responsible for preoperative and postoperative care of patients as well as the care of all hospitalized patients. Students will also assist with after-hours cardiology emergencies. Cardiology students also share EMS and isolation ward duties. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7042 Small Animal Wellness & Disease Prevention
Description: Receiving and managing emergency and general medical and surgical cases in companion animals. Previously offered as VCS 7733.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7052 Small Animal Wellness & Disease Prevention Clerkship Elective
Description: Receiving and managing emergency and general medical and surgical cases in companion animals.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7062 Small Animal Primary Care III
Prerequisites: VCS 7042 Small Animal Primary Care I and VCS 7052 Small Animal Primary Care II.
Description: Receiving and managing emergency and general medical and surgical cases in companion animals. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7072 Diagnostics I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Participation in animal necropsy, clinical pathology, clinical parasitology, and other investigative methods to study diagnosis, prognosis, prevention and treatment of animals (three week modules) Previously offered as VCS 7953. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7082 Equine Medicine I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of equine medical diseases. Previously offered as VCS 7723. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7092 Equine Medicine II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of equine medical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7102 Equine Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of equine medical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7112 Equine Performance Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine and Equine Emphasis Track.
Description: Common diagnostic techniques used in equine sports medicine will be systematically reviewed in a "hands-on" approach. This will include performing pre-purchase and lameness exams, diagnostic nerve blocks, ultrasound, and radiology. Graded on a pass/fail basis. Previously offered as VCS 7853.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci
Additional Fees: VM Consummable VCS 7112 fee of $50 applies.

VCS 7122 Equine Surgery and Sports Medicine II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment, and prevention of equine surgical diseases. Graded on a pass/fail basis. Previously offered as VCS 7793. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7132 Equine Surgery and Sports Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of equine surgical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7142 Externship I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, prevention and treatment of diseases of animals presented in the externship program. Graded on a pass/fail basis. Previously offered as VCS 7813.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7152 Externship II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, prevention and treatment of diseases of animals presented in the externship program. Graded on a pass/fail basis. Previously offered as VCS 7710 and VCS 7823.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7162 Externship III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Approved clinical rotations off the OSU campus. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7172 Externship IV
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Approved clinical rotations off the OSU campus. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7182 Externship V
Description: Approved clinical rotations off the OSU campus. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7192 Externship VI
Description: Approved clinical rotations off the OSU campus. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7202 Field Services and Production Medicine II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Students will gain confidence and become familiar in various clinical procedures and common diseases and conditions most common in farm species in field practice. Learn how to move/direct livestock, study, review, and prepare cases. Actively participate in rounds and "on the road" discussions, and learn to communicate with clients. Previously offered as VCS 7893. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7212 Field Services and Production Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Allows students to gain confidence in various clinical procedures common in field practice, to become familiar with the more common diseases and conditions that occur in farm species, to learn how to move/direct livestock, study, review, and prepare cases seen or for surgery, actively participate in rounds and "on the road" discussion, and learn to communicate with clients. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7222 Food Animal Medicine and Surgery I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of diseases of food animal medical and surgical diseases. Previously offered as VCS 7763. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7232 Food Animal Medicine and Surgery II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of diseases of food animal medical and surgical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7242 Food Animal Medicine and Surgery III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of diseases of food animal medical and surgical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7252 Hospital Based Theriogenology II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Students will admit and provide primary care with assistance from the surgery and medicine service to cases that are presented with a primary theriogenology component. Managed companion animal cases will include canine C-sections, breeding cycle mgmt, pyometras, and prostatic cases. Food Animal cases include bovine dystocias, bovine BSEs, bull preputial lacerations, small ruminant dystocias, etc. Morning case rounds in the surgery & medicine sections of the hospital (large/small animal) will be attended when case responsibility is shared. Previously offered as VCS 7933. Graded pass/fail.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7262 Hospital Based Theriogenology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Students will admit and provide primary care with assistance from the surgery and medicine service to cases that are presented to the VTH with a primary theriogenology component. Managed companion animal cases include canine C-sections, canine breeding cycle management, canine pyometras and canine prostatic cases. Food Animal cases include bovine dystocias, BSEs, bull preputial lacerations, small ruminant dystocias, etc. Participation in morning case rounds in surgery and medicine sections (both large and small animal) will be attended when responsibility is shared. Graded on a pass/fail basis
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7272 Small Animal Emergency and Critical Care Elective
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Clinical rotation in small animal intensive care/critical and emergency medicine. Previously offered as VCS 7703. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7282 Small Animal Emergency and Critical Care III
Prerequisites: VCS 7272 Small Animal Emergency and Critical Care I.
Description: Clinical rotation in small animal intensive care/critical and emergency medicine. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7292 Large Animal Bovine Theriogenology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of breeding cattle and horses at the CVM Ranch, including artificial insemination, treatment of infertility, periparturient management, and pediatrics. Emphasis in bovine. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7302 Large Animal Equine Theriogenology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of breeding horses and cattle at the CVM Ranch, including artificial insemination, treatment of infertility, periparturient management, and pediatrics. Emphasis in equine. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7312 Large Animal Theriogenology II-A
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of breeding cattle and horses at the CVM Ranch including estrous cycle management, semen processing artificial insemination and other advanced reproductive techniques, diagnosis and treatment of infertility, periparturient management and pediatrics. Previously offered as VCS 7770 and VCS 7773. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7322 Large Animal Theriogenology II-B
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of breeding cattle and horses at the College of Veterinary Medicine Ranch, including artificial insemination, treatment of infertility, periparturient management, and pediatrics. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7332 Large Animal Theriogenology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Management of breeding cattle and horses at the CVM Ranch, including artificial insemination, treatment of infertility, periparturient management, and pediatrics. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7342 Ophthalmology II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Clinical rotation in small animal, equine, exotic and food animal ophthalmology. Students will take part in outpatient receiving including history taking, ophthalmic examination, forming a problem list, case assessment, and treatment plan. Students will assist in surgery and be responsible for the care of all hospitalized patients. Students will also assist with after-hours ophthalmic emergencies. Ophthalmology students also share EMS and isolation ward duties. Previously offered as VCS 7903. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7352 Ophthalmology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: This is a two week clinical rotation in small animal, equine, exotic animals, and food animal ophthalmology. Students will take part in outpatient receiving including history taking, ophthalmic examination, forming a problem list and case assessment, and forming a treatment plan. Students will assist in surgery and be responsible for the care of all hospitalized patients. Students will also assist with after-hours ophthalmic emergencies. Ophthalmology students also share EMS and isolation ward duties. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7362 Professional Development Experience III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Special assignments for introductory clinical studies with a focused topic in the following: selected species clinic; herd-health program; necropsy, clinic pathology and parasitology; diagnostic laboratory; and special aspects of the basic sciences. Previously offered as VCS 7833.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7372 Radiology I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnostic radiography, ultrasound, and other special imaging modalities. Previously offered as VCS 7713. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7382 Radiology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnostic radiography, ultrasound, and other special imaging modalities. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7392 Small Animal Internal Medicine I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of companion animal medical diseases. Previously offered as VCS 7743. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7402 Small Animal Internal Medicine II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of companion animal medical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7412 Small Animal Internal Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of companion animal medical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7422 Small Animal Surgery I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment, and prevention of companion animal surgical diseases. Previously offered as VCS 7753. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7432 Small Animal Surgery III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Diagnosis, prognosis, treatment and prevention of companion animal surgical diseases. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7442 Surgical Fundamentals in Shelter Patients I
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Application of basic clinical, surgery, and anesthesia skills primarily to pet adoption candidates. Previously offered as VCS 7883. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7452 Ultrasound Elective
Description: Observing/performing diagnostic ultrasound exams. Graded on a pass-fail basis. Previously offered as VCS 7863.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7462 Ultrasound/Clinical Pathology III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Participants will attend radiology rounds daily as well as observing and/or performing diagnostic ultrasound exams on common domestic animal species, and, when not actively participating in a clinical ultrasound study, in library research on the subject. Graded on a pass/fail basis. Previously offered as VCS 7873.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7472 Zoological Medicine II
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Health maintenance, diagnosis and treatment of medical or surgical conditions in zoo, exotic pet and wildlife species. Previously offered as VCS 7780 and VCS 7783. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci
Additional Fees: VM Consummable VCS 7472 fee of $50 applies.

VCS 7482 Zoological Medicine III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Health maintenance, diagnosis and treatment of medical or surgical conditions in zoo, exotic pet and wildlife species. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci
Additional Fees: VM Consummable VCS 7482 fee of $50 applies.

VCS 7492 Applied Canine Exercise Physiology Elective III
Prerequisites: Fourth-year standing in the College of Veterinary Medicine, VMED 7632 Exercise Physiology and/or approval of instructor.
Description: Physiological mechanisms of exercise performance in different types of working dogs, including hands-on exposure to elite canine athletes. Diagnosis, treatment, and prevention of exercise-specific injuries and illnesses of working and athletic dogs.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci
Additional Fees: VM Consummable VCS 7492 fee of $450 applies.

VCS 7502 Small Animal Internal Medicine Clerkship Elective
Description: Designed to expose students to all aspects of small animal medicine cases at designated small animal veterinary practices. Same course as VCS 7392. Previously offered as VCS 7743. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7512 Small Animal Medicine Clerkship II
Description: Designed to expose students to all aspects of small animal medicine cases at designated small animal veterinary practices. Same course as VCS 7402. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7522 Small Animal Medicine Clerkship III
Description: Designed to expose students to all aspects of small animal medicine cases at designated small animal veterinary practices. Same course as VCS 7412. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7532 Applied Diagnostic Medicine and Laboratory Investigations III
Prerequisites: 4th Year standing in the College of Veterinary Medicine; must have already completed Core Diagnostic I rotation (VCS 7072).
Description: This course offers additional hands-on experience in the diagnosis of diseases commonly seen at the OADDL. Instruction will include necropsy examinations, observation and participation in ancillary laboratory sections (e.g. Bacteriology, Histology, Serology, Toxicology and Virology), case simulations, and close interaction with OADDL faculty and staff. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7542 Emergency and Critical Care Clerkship Elective
Prerequisites: VCS 7272 Small Animal Emergency and Critical Care I.
Description: Clinical rotation in small animal emergency and critical care medicine. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7552 Public Health Practice for Veterinarians III-A
Description: Clinical year elective for students enrolled in the MPH Program intended to demonstrate competency regarding data acquisition analysis and application to clinical settings communication of science-based information, design population-based policy program, project, or intervention for improvements in production or health, principles and tools of budget and resource management, leadership, governance, and personnel management. Course precedes enrollment in Public Health Practice III-B. May not be used for degree credit with MPH 5030.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7562 Public Health Practice for Veterinarians III -B
Description: -
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7572 Advanced Small Animal Ultrasound III
Description: This course is comprised of management of clinical cases, self-study, and hands-on instructional sessions.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7582 Externship VII
Description: Approved clinical rotation off OSU campus.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7592 Behavior Medicine Elective
Description: Clinical reinforcement in the application of basic procedures and methods for diagnosing and treating common behavioral problems of the dog and cat.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7602 Dermatology Elective
Description: Clinical reinforcement in the application of pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to skin.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7612 Small Animal General Medicine
Description: Diagnosis, prognosis, treatment and prevention of general medical diseases.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7622 Small Animal General Surgery
Description: Diagnosis, prognosis, treatment and prevention of general surgical diseases.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7632 Emergency & Critical Care
Description: Clinical rotation in critical and emergency medicine.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7642 Small Animal General Medicine Clerkship Elective
Description: Diagnosis, prognosis, treatment and prevention of general medical diseases.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7652 Small Animal General Surgery Clerkship Elective
Description: Diagnosis, prognosis, treatment and prevention of general surgical diseases.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7662 Large Animal Emergency & Critical Care
Description: Clinical rotation in equine and food animal emergency and critical care. Students will take part in receiving after-hours large animal emergencies, including triage, history taking, physical examination, diagnostics and diagnosis, prognosis, and treatment of large animal medical and surgical diseases. Students will also assist in the treatment and care of all hospitalized large animal patients, including both equine and food animal.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Veterinary Clinical Sci

VCS 7912 Grand Rounds
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Presentation and discussion of selected clinical topics by fourth-year students, departmental faculty, and invited experts. Graded on a pass/fail basis.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Professional
Schedule types: Independent Study
Department/School: Veterinary Clinical Sci

Veterinary Medical Education (VME)

VME 7111 Critical Thinking, Clinical Skills, & Communication I
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: This course is the first in a series that will focus on the growth of clinical reasoning, communication and technical skills necessary for the development and training of students in the DVM program. Students will further expand with practice and exposure through a series of clinical skills courses spanning years 1-3 of the curriculum with increasing complexity, understanding and integration of knowledge.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7121 Professional Skills I
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Introduction to non-technical aspects of veterinary medicine that are critically important in practice and success in the profession. Main topics include career options under the umbrella of veterinary medicine, jurisprudence, ethics, government regulations, stressors in practice, coping mechanisms and self-management skills for the profession.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7136 Veterinary Physiology & Histology I
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Scientific, evidence-based veterinary practice is based on an understanding of the normal function of the veterinary patient. The purpose of this course, as well as the following course (Physiology & Histology II) is to provide the students in the veterinary professional curriculum with clinically relevant knowledge of normal physiology through the full-range of animal organization (cellular, tissue, organ, organ system, and organism). This course will also provide the necessary foundation to support subsequent courses throughout the veterinary professional curriculum related to the diagnosis, treatment, and prevention of animal diseases.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7144 Gross & Developmental Anatomy
Description: Embryology and anatomy of domestic mammals using the dog as the primary model, integrated lecture-dissection laboratory format. Emphasis on the integration of developmental gross, radiographic and applied aspects of veterinary anatomy as they relate to a topographical appreciation of the living individual. Previously offered as VMED 7144.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7153 Veterinary Immunology
Description: Basic principles of immunology and their application to veterinary medicine. Course previously offered as VMED 7250 and VMED 7253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7161 Epidemiology & Evidence-Based Medicine
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Principles and uses of evidence-based practice of veterinary medicine; comprehension and utilization of scientific research; interpretation of basic concepts of observational study of disease.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7171 Nutrition
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Students will learn skills to evaluate for nutritional sufficiency in individual patients or group/herd management, symptoms of nutritional deficiencies and toxicities, and the value of therapeutic diets for various disease conditions in small and large animals.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7211 Critical Thinking, Clinical Skills, & Communication II
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: This course is in the second in a series that will focus on the growth of clinical reasoning, communication, and technical skills necessary for the development and training of students in the DVM program. Students will further expand with practice and exposure through a series of clinical skills courses spanning years 1-3 of the curriculum with increasing complexity, understanding, and integration of knowledge.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7221 Professional Skills II
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Introduction to non-technical aspects of veterinary medicine that are critically important in practice and success in the profession.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7236 Veterinary Physiology & Histology II
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Scientific, evidence-based veterinary practice is based on an understanding of the normal function of the veterinary patient. The purpose of this course is to provide the students in the veterinary professional curriculum with clinically relevant knowledge of normal physiology through the full range of animal organization (cellular, tissue, organ, organ system, and organism) as a continuation of Physiology & Histology I. This course will also provide the necessary foundation for subsequent courses throughout the curriculum related to the diagnosis, treatment, and prevention of animal diseases.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7243 Comparative Anatomy
Description: Comparative and functional gross anatomy of domestic mammals. Emphasis on the integration of developmental gross, radiologic, and applied clinical aspects of veterinary anatomy as they relate to a topographical appreciation of the living individual, integrated lecture-dissection laboratory format. Course previously offered as VMED 5243 and VMED 7243.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7253 Clinical Pathology
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Basic concepts pertinent to data interpretation and laboratory methods used in evaluation of disease. Course previously offered as VMED 7363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7264 General Pathology
Description: Cellular and tissue pathology, pigments, inflammation, immunopathology, disturbances of growth and circulation, and neoplasia. Functional disturbances that accompany changes in structures as well as the causes and pathogenesis of diseases. Course previously offered as VMED 5264 and VMED 7264.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7312 Critical Thinking, Clinical, Skills, & Communication III
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: This course is the third in a series that will focus on the growth of clinical reasoning, communication, and technical skills necessary for the development and training of students in the DVM program. Students will further expand with practice and exposure through a series of clinical skills courses spanning years 1-3 of the curriculum with increasing complexity, understanding, and integration of knowledge.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7325 Veterinary Parasitology
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7333 Pharmacology I
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7343 Diagnostic Imaging
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7353 Veterinary Virology
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7363 Toxicology
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7412 Critical Thinking, Clinical Skills, & Communication IV
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: This course is the fourth in a series that will focus on the growth of clinical reasoning, communication and technical skills necessary for the development and training of students in the DVM program. Students will further expand with practice and exposure through a series of clinical skills courses spanning years 14 of the curriculum with increasing complexity, understanding and Integration of knowledge.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7421 Professional Skills III
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: This course continues instruction in the non-technical aspects of veterinary education focused on personal and professional development. The course is divided Into two sections. The first set of topics Is focused on personal development focused on relationships in a practice setting: providing constructive feedback to peers and mentors, utilizing feedback to enhance team performance and developing effective leadership skills. The second set of topics identifies strategies to apply the principles of successful veterinary practice management
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7433 Food Safety & Public Health
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: Approaches and skills for identifying, investigating and mitigating occurrences of disease outbreaks; introduction to zoonotic diseases; role veterinarians play in protecting public health; potential human health hazards in foods of animal origin. Course previously offered as VMED 5313 and VMED 7413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7444 Veterinary Bacteriology & Mycology
Prerequisites: Second-year standing in College of Veterinary Medicine.
Description: Important animal diseases caused by bacteria and fungi will be covered on a system basis. Mechanisms of infectious disease processes and the relationship of such processes to disease development, diagnosis, treatment and control. The relationship of zoonotic diseases to community and environmental health as well as important zoonoses. Course previously offered as VMED 7350 and VMED 7354.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7452 Pharmacology II
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: Continuation of VMED 7333 that includes the mechanisms of action, disposition, adverse effects, and indications for groups of pharmacological agents used in veterinary medicine. Course previously offered as VMED 5432 and VMED 7432.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7463 Anesthesiology & Analgesia
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: Application of the principles of veterinary anesthesiology to incorporate fundamental aspects of physiology and pharmacology in the anesthetic management of important domestic species. Course previously offered as VMED 5412 and VMED 7412.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7472 Hemolymphatics & Oncology
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the blood and lymphatic system. Same course as CBSC 5482. Previously offered as VMED 5582 and VMED 7482.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7481 Introduction to Exotic Animal Medicine
Prerequisites: Second-year standing In the College of Veterinary Medicine.
Description: This course will provide introductory level knowledge on exotic animal (avian, reptile, and email mammals) medicine. Course will focus on common species and will provide information on the species natural history and biology, common diseases/presentations, and preventive medicine. The content covered by this class will focus on the basic knowledge a general practitioner should have to provide basic care for non-traditional species.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7512 Critical Thinking, Clinical Skills, & Communication V
Description: This course is fifth in a series that will focus on the development of clinical reasoning, communication, and technical skills necessary for the training of students in the DVM program. Students will expand with practice and exposure through a series of clinical skills courses spanning years 1-3 of the curriculum with increasing complexity, understanding and integration of knowledge.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7522 Junior Surgery I
Description: Introduction to fundamental principles of surgery. Didactic material will be followed by surgical laboratories. Previously offered as VMED 7592.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7533 Musculoskeletal
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Pathology, pathogenesis, diagnosis, treatment, and prevention of diseases related primarily to the musculoskeletal system of domestic animals. Previously offered as VMED 7563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7543 Theriogenology
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the reproductive system. Previously offered as VMED 7674.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7552 Veterinary Endocrinology
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the endocrine system.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7564 Cardiopulmonary
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the cardiovascular and respiratory systems. Previously offered as VBSC 5564 and VMED 7664. Same course as CBSC 5564.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7572 Primary Care I
Description: This course offers a focused study on essential preventive care strategies for dogs, cats, horses, and ruminants, including basic herd health for livestock species. Students will learn to design vaccination and parasite control programs, ensuring the health and longevity of these species. The course also covers the fundamentals of dental care, behavior, and nutrition, highlighting their impact on overall wellness.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7612 Critical Thinking, Clinical Skills, & Communication VI
Description: This course is the sixth in a series that will focus on the development of clinical reasoning, communication, and technical skills necessary for the training of students in the DVM program. Students will expand with practice and exposure through a series of clinical skills courses spanning years 1-3 of the curriculum with increasing complexity, understanding and integration of knowledge.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VME 7621 Professional Skills IV
Description: This course continues instruction in the non-technical aspects of veterinary education focused on personal and professional development.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7631 Junior Surgery II
Description: Introduction to fundamental principles of surgery. Didactic material will be followed by surgical laboratories. Previously offered as VMED 7601.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Lab
Department/School: Dean of Veterinary Med

VME 7644 Alimentary
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the alimentary system. Previously offered as VBSC 5564 and VMED 7664. Same course as CBSC 5564.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7652 Ophthalmology
Description: Pathogenesis, diagnosis, medical and surgical treatment, and prevention or ophthalmic diseases in small animal and equine patients. Course previously offered as VMED 7502.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7662 Urinary
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the urinary system. Course previously offered as VMED 7662.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7672 Neurology
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment and prevention of nervous system diseases. Course previously offered as VMED 7612.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VME 7682 Primary Care II
Description: This course offers a focused study on essential preventive care strategies for dogs, cats, horses, and ruminants, including basic herd health for livestock species. Students will learn to design vaccination and parasite control programs, ensuring the health and longevity of these species. The course also covers the fundamentals of dental care, behavior, and nutrition, highlighting their impact on overall wellness.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VME 7692 Dermatology
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to skin (nine-week module). Previously offered as VMED 7583.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

Veterinary Medicine (VMED)

VMED 7113 Veterinary Physiology II
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Study of molecular, cellular and organ system physiology with emphasis on establishing a base of knowledge and understanding requisite courses within the curriculum of veterinary medicine. Continuation of VMED 7114. (8 week course) Previously offered as VMED 7120.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7114 Veterinary Physiology I
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: To introduce students to the relevant concepts of cell physiology and cardiovascular physiology, providing a foundation for Physiology II and III, clinical coursework and clinical rotations. Previously offered as VMED 7110.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7123 Veterinary Histology
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Organization and structure of cells and tissues of domestic animals. Previously offered as VMED 5123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VMED 7152 Zootechnology
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Animal breeds and identification, animal production and marketing systems and animal handling and restraint as it applies to production and marketing. Previously offered as VMED 5152.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7162 Orientation to the Veterinary Medical Profession
Prerequisites: First year standing in College of Veterinary Medicine.
Description: Introduction to veterinary jurisprudence, ethics, licensing, government regulations, human-animal bond, and evolving issues in animal law and animal welfare.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7235 Veterinary Physiology III
Prerequisites: First-year standing in the College of Veterinary Medicine.
Description: Molecular, cellular and organ system physiology. Establishing a base of knowledge and understanding requisite to subsequent courses. Previously offered as VMED 7230.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7401 Introduction to Beef Production Medicine Elective
Prerequisites: Second-year or third-year standing in the College of Veterinary Medicine.
Description: This course will provide students with an understanding of the beef production industry in the United States. Students will gain an understanding of the importance of beef production to the US and global food production, the structure and function of the US beef industry, and the role of a veterinarian in beef production medicine. The course will be a combination of lecture and discussion format. If possible, the course will also include field trips to visit examples of the various segments of the beef industry.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7411 Best Practices Business Model for Veterinarians Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Online introduction to personal financial literacy and business management. This is a modular-format, online accessible course constructed by the Beef Cattle Institute at Kansas State University. Students will complete the course at their own pace. Graded on a pass/fail basis. Previously offered as VMED 7410.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7431 Small Animal Nutrition Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Discussion of clinical nutrition for dogs and cats, designing a feeding plan for small animal patients and nutritional management of various disease states. Discussions will include nutritional assessment, how to read a pet food label, how to evaluate unconventional diets, feline nutrition, and nutritional case management. Types of cases that will be covered include canine and feline obesity, gastrointestinal diseases and critical care cases.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7441 Intro to Veterinary Emergency Response and Disaster Management Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: This course will introduce the principles and structure of emergency management Including the incident Command System and the hierarchies. Basics of animal disaster management, including hazard recognition, disaster life cycle, development of Emergency Operations Plans, and veterinarian's role In disasters from the state to local level will be presented as well as management and sheltering of small and large animals pre and post disasters. Veterinary business emergency plans will be discussed.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7451 Advanced Veterinary Clinical Parasitology Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Offers an opportunity to explore key topics in veterinary parasitology in greater depth, including perceptions of parasites in society, diagnostic challenges in medicine, the scientific evidence behind parasiticide resistance and toxicity, and the marketing of parasiticides in veterinary medicine. In addition, students are guided through the process of developing and communicating management strategies for specific parasite challenges.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7481 Special Topics in Applied Anatomy: A Case-Based Approach Elective
Prerequisites: First, second or third-year standing in the College of Veterinary Medicine.
Description: Students will choose a small or large animal topic where anatomy plays a role in either the cause or treatment of the condition (or both). The IOR/student will contact an appropriate clinical faculty member who will choose a case from the VTH representing the condition of choice, the student will prepare a 20-30 minute presentation discussing the condition relevant anatomy and present case example from vth.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7510 Research Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Participation in faculty-directed projects to enhance career development in veterinary biomedical research. Students participate in a process mimicking investigator-initiated research by developing a research proposal, participating in a competitive peer-review process, and reporting on completed research project. Letter grade to be assigned. Course previously offered as VMED 5510. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7512 Laboratory Animal Medicine Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Introductory course focusing on the biology and major diseases of commonly used laboratory animals. Course previously offered as VMED 7721.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7513 Veterinary Acupuncture Elective
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: The Veterinary Acupuncture Elective is an integrative treatment modality that immerses students in a series of hybrid online lectures and in-person laboratory sessions.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7521 Veterinary Practice Management Elective
Prerequisites: Second- or third-year standing in College of Veterinary Medicine.
Description: Skills and background for success as an employee in private veterinary practice. Successful practice is defined in terms of the perceived value received in the delivery of veterinary medical services, doctor-client communication skills, and aesthetic quality of the environment in which services are delivered. Business management of private practice, personal finances, and personnel management. Course previously offered as VMED 5521.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7522 Small Animal Medical Diagnosis: Signs and Symptoms Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Introduction to clinical problem solving through application of a problem-oriented approach to clinical diagnosis. Discussion of major problems (clinical signs and symptoms) affecting animals, and the pathophysiology of each clinical sign, its differential diagnosis and symptomatic management. Review of key anatomical, pathological and immunological concepts learned in basic science courses. Course previously offered as VMED 5522.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7533 Toxicology
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Diagnosis and management of intoxications involving plant, chemical and biological toxins. Course previously offered as VMED 6533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7541 Introduction to Food Animal Production Systems Elective
Prerequisites: Second-year or third-year standing in the College of Veterinary Medicine.
Description: Consists of a week-long field trip of food animal production operations in Oklahoma and Texas providing exposure to beef cattle, swine and dairy production industries. Includes group presentation of the experience.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med
Additional Fees: VM Course Suppy & Mat VMED7541 fee of $50 applies.

VMED 7542 Clinical Endocrinology I Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Advanced medical endocrinology addressing diagnostic endocrinology and therapeutic endocrinology. Diagnostic endocrinology shall examine the physiological and medical basis for selecting provocative or non-provocative testing procedures as an adjunct to completing a definitive diagnosis. Therapeutic endocrinology involves the use of diagnostic endocrinology to evaluate the efficacy of medical treatment of endocrinopathies and the medical use of hormonal preparations to control animal physiology or endocrinology and non-endocrine diseases.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7551 Food Animal: Advanced Techniques Elective
Prerequisites: Second-year standing in the College of Veterinary Medicine.
Description: This elective is designed to give second year students the opportunity to learn how to perform some of the most commonly performed procedures in food animal medicine in regards to the modalities of treatment, diagnostics, herd health, local anesthesia and Pharmacology. One hour per week will be spent as formal lecture to provide some theory for the procedures and techniques to be performed during the laboratory periods.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Lab
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7551 fee of $30 applies.

VMED 7561 Introduction to Shelter Medicine Elective
Prerequisites: Second-year or third-year standing in the College of Veterinary Medicine.
Description: Introduction course on topics relevant to shelter medicine. Discusses major subjects and issues important to practicing medicine in the shelter setting.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7562 Avian and Exotic Pet Medicine Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Clinical diagnosis, management and treatment, prognosis, and prevention of diseases in avian and exotic pets. Introductory material provided to familiarize students with the species discussed and where clinically important; however, student understanding of the basic sciences required and assumed. Course previously offered as VMED 5562.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7562 fee of $55 applies.

VMED 7572 Introduction to Behavioral Medicine Elective
Description: Normal behavior of the dog and cat, basic procedures and methods for diagnosing and treating behavioral problems. Previously offered as VMED 5571 and VMED 7571.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

VMED 7591 International Veterinary Medicine Elective
Prerequisites: Second-year or third-year standing in the College of Veterinary Medicine.
Description: Overview of the importance of veterinarians and the wide range of activities in which they participate around the world including the military, public health agencies, humanitarian relief agencies, wildlife preservation groups and faith-based agencies.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7610 Basic Science Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Problems in the basic sciences taught as lecture or lab. Previously offered as VMED 6610. Graded on a pass-fail basis.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7630 Clinical Science Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Problems in the clinical sciences taught as lecture or lab. Previously offered as VMED 7620. Graded on a pass-fail basis.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7651 Equine Theriogenology Laboratory Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Introduction to palpation, ultrasonographic examination and breeding preparation of the mare reproductive tract.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7651 fee of $300 applies.

VMED 7652 Introduction To Clinics II
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Rotations through instructional and service areas, including the Veterinary Teaching Hospital of the College of Veterinary Medicine. Previously offered as VMED 6652.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VMED 7661 Infectious and Parasitic Diseases of Wild Animals Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Systematic approach to infectious and parasitic diseases affecting wild animals. Capture, restraint, and disease recognition in wild species, population management implications of disease diagnosis. Previously offered as VMED 5661.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7671 Clinical Endocrinology II Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Advanced medical endocrinology, focusing on endocrine diseases associated with (1) dysfunction of the endocrine pancreas, (2) selected endocrineopathies of the reproductive system, and (3) therapeutic use of hormones to control reproductive activity of animals.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7672 Swine Production and Diseases Elective
Prerequisites: Second or third-year standing in the College of Veterinary Medicine.
Description: Problem-based course related to swine diseases and production systems.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7681 Case Studies In Clinical Neurology Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Case based, problem oriented clinical diagnosis, management, treatment and prevention of small animal neurological diseases.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7682 Small Ruminant Production, Management, Medicine and Surgery Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Production, management, medical and surgical diseases of sheep, goats, and llamas used for production and companion animals. Previously offered as VMED 5682.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7692 Veterinary Dental Education Online and Practical Dentistry Elective
Description: -
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Clinical
Department/School: Dean of Veterinary Med

VMED 7710 Veterinary Study Abroad Elective
Prerequisites: Second- or third-year standing in the College of Veterinary Medicine.
Description: Participation in international animal health activities having an educational component, either through didactic instruction, service learning, workshop participation, and others. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

VMED 7711 Problem-Based Ophthalmology Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine. Case-based, problem-oriented discussions of small animal and equine ophthalmology cases.
Description: Case-based, problem-oriented discussions of small animal and equine ophthalmology cases. Key points in the case history, the significance of signalment in the diagnosis, clinical diagnosis, supportive diagnostic tests, and treatment. General discussion of the specific disease following the case discussion.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7712 Systemic Pathology: Case Studies and Mechanisms of Disease Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Selected diseases of major organ systems will be approached as an exercise in critical diagnostics thinking. Review of salient pathological responses for each system. Relevant journal articles to emphasize need for continued, self-guided learning.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Professional
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Dean of Veterinary Med

VMED 7742 Bovine Theriogenology and Regulatory Medicine Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Palpation techniques in cows. Previously offered as VMED 7741.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Professional
Schedule types: Lab
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7742 fee of $250 applies.

VMED 7761 Introduction to Integrative Medicine: An Investigation into Holistic Veterinary Medicine Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: This course will provide an overview of current modalities being utilized as alternative therapies in Veterinary Medicine. The student will gain an appreciation for the importance of complementary medicine, and the evidence available to support its use. Students will also gain an understanding of critically assessing the research available and determining whether the information is clinically relevant.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7771 Essentials in Equine Practice: Medicine Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Topics are related to equine medicine, ophthalmology, cardiology, and/or theriogenology that are not covered in detail in core curriculum. Aim is to supplement information and provide exposure to basic clinical techniques commonly performed in equine practice. A clinical perspective will be emphasized and hands-on laboratories used as an adjunct when appropriate.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7771 fee of $450 applies.

VMED 7781 Professional Veterinary Medicine
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: A capstone course preparing third-year veterinary students for clinical training. Topics include: non-technical skills, knowledge, aptitudes, and attitudes; veterinary career opportunities in public practice, and preparation for the North American Veterinary Licensing Examination (NAVLE).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7811 Basic Techniques in Equine Surgery and Sports Medicine Elective
Description: To provide the equine or mixed animal practice oriented student with in-depth knowledge/techniques concerning topics and procedures important for success in equine practice. Focuses on topics relative to the practice of equine sports medicine and minor surgery (lameness examination, castration, field anesthesia). Material will be applied to hands-on laboratories using models, live horses and/or cadaver specimens when appropriate. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7822 Food Animal Production Medicine Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Production animal agriculture and the veterinarian's present and future role in these enterprises. Cattle production is emphasized. Cycles of production, economics and health programs will be discussed. For students intending to enter mixed animal or exclusive food animal practices. Course previously offered as VMED 6622.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7841 Food Animal Surgery Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Detailed examination and review of commonly utilized local anesthetic techniques, injectable anesthetic techniques, and surgical procedures in food animal practice. Major topics include digital, mammary, gastrointestinal, and urethral surgery as well as cesarean section. Course previously offered as VMED 6641.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med
Additional Fees: VM Consummable VMED 7841 fee of $300 applies.

VMED 7861 Cytology Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: An introduction to clinical diagnosis using cytology. Topics include sample collection, inflammatory lesions, neoplasia, lymph node cytology, respiratory washes, synovial fluids, and body cavity effusions. The course consists of lectures, multi-head microscope and individual microscope laboratories; cases will be predominantly small animals.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Professional
Schedule types: Lab
Department/School: Dean of Veterinary Med

VMED 7881 Introduction to Ultrasound Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: This course will teach the principles of ultrasound imaging, focusing on small animal imaging, but will have general topics as well that apply to all species and applications.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7902 Small Animal Emergency and Critical Care Elective
Prerequisites: Third-year standing in the College of Veterinary Medicine.
Description: Emergency conditions and patients In shock states require rapid assessment, evaluation, Interpretation of the parameters, and Institution of the appropriate treatment to improve the patient's prognosis. This course will provide resources to prepare the student for these very common situations In emergency and critical care medicine. The course is based on lectures, case-based discussions, end two practical activities. In the first practical activity, students will be able to practice thoracocentesls, abdominocentesie, chest tube placement, endotracheal intubation, venous access via cutdown technique, and tracheostomy tube placement. Cadavers will be used for this activity. The second practical activity will involve monitoring techniques such as ECO tracing interpretation, performing a FAST scan, performing blood pressure measurement pulse oximetry placement and evaluation, and basic analysis of a blood gas.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

VMED 7941 Clinical Skills Outcomes Assessment
Prerequisites: Fourth-year standing in the College of Veterinary Medicine.
Description: Assessment of clinical skills using checklists and/or brief case summaries.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Professional
Schedule types: Independent Study
Department/School: Dean of Veterinary Med

Workforce and Adult Education (WAED)

WAED 5000 Thesis or Report
Description: Students studying for a master's degree may enroll for a total of two credit hours if they write a report or six hours if they write a thesis. Students working on a specialist's degree may earn a maximum of 10 hours credit. Previously offered as OCED 5000. Offered for variable credit, 2-10 credit hours, maximum of 10 credit hours.
Credit hours: 2-10
Contact hours: Contact: 2-10 Other: 2-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5010 Seminar
Description: Graduate student seminars focusing on current and critical issues and common problems relevant to workforce and adult education. Previously offered as OCED 5010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5013 Foundations and Characteristics of Adult Learning
Description: Societal trends and issues which have influenced the development and current status of workforce and adult education. Learning patterns, interests and participation among adults in a variety of educational settings. Previously offered as HRAE 5213 and EDLE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5110 Career and Technical Information
Description: New development in scientific and technical information and knowledge that are relevant to current career, technical and trade practices. May not be used for degree credit with CTED 4110. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5113 Principles of Leadership in Workforce Education
Description: Principles and analysis of leadership in today's workforce education organizations and the effect of leadership practices on organizational climate and governance. Understanding today's labor market and the connection among education, government, and workforce development policy. Previously offered as OCED 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5123 Administration & Evaluation of Workforce and Adult Education
Description: Principles of effective planning, administration and evaluation of workforce and adult education settings. Techniques and strategies for designing, conducting, reporting, and applications of evaluations. Course previously offered as TIED 5223 and OCED 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5133 Internationalism, Globalization and Workforce Education
Description: Preparing a globally competitive workforce. Analysis of comparative international occupational/technical education systems, and critical issues in internationalism and globalization in workforce education development. Course previously offered as OAED 5133 and OCED 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5143 Organization and Administration of Adult Education
Description: Organizational procedures and administrative practices for effective planning, implementation and management of adult and continuing education programs. Analyses of legislation, finances and community groups that influence and impact upon adult and continuing education programs. Previously offered as HRAE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5153 Curriculum Planning in Workforce and Adult Education
Description: Principles and procedures for curriculum planning, development and management in workforce and adult education with analyses of current trends and practices and their implications for program quality. Course previously offered as OAED 5153 and OCED 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5163 Instructional Procedures in Career and Technical Education
Description: Methods and techniques for effective teaching and learning in career and technical classroom, laboratories, and technology-based environments. May not be used for degree credit with CTED 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5170 CTED Workshop
Description: Professional workshops of various topics and lengths. Focus on a particular topic from such areas as the development, use, and evaluation of instructional methods and materials. May not be used for degree credit with WAED 4010. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5183 Coordinating Career and Technical Student Organizations and Activities
Description: Student organizations and activities in career and technical education at local, state and national levels. Procedures for planning programs of work, incorporation of student organization activities into curriculum, adviser characteristics and responsibilities, fund-raising activities, and techniques for recognizing outstanding members and community supporters. May not be used for degree credit with CTED 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5193 Safety, Organization and Management of Learning Facilities
Description: Techniques and procedures for organizing and managing career and technical laboratory facilities and learner activities to enhance the quality of instruction and improve efficiency of equipment and space utilization, including all safety rules and procedures. May not be used for degree credit with CTED 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5203 Foundations of Adult and Continuing Education
Description: Societal trends, issues and institutions which have influenced the development and current status of adult and continuing education. Analyses and critiques of contemporary adult and continuing education activities, materials and clientele groups served, and their implications for new existing programs in the field. Previously offered as HRAE 5203 and EDLE 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5213 Occupational Analysis and Curriculum Development
Description: Analysis of occupational job activities; development of course objectives, course outlines, and specific instructional materials for occupational and technical courses. May not be used for degree credit with CTED 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5223 Program Planning for Workforce and Adult Educators
Description: Approaches to program planning designed around continuous improvement methods for problem solving, flow charting, budgeting, gaining program support, and research proven models applicable to workforce and adult education. Previously offered as OCED 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5232 Teaching Related Information
Description: Selection of job-related topics common to most workforce and adult education programs; procedures for incorporating those topics into the regular curriculum. Course previously offered as TIED 5232 and OCED 5232.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5233 Advanced Instructional Procedures in Workforce and Adult Education
Description: Advanced methods and procedures for effective teaching and learning in workforce and adult education classrooms and laboratories. Teaching basic education and employment skills and the selection of job-related topics common to most occupations with procedures for incorporating those topics into the regular curriculum. Course previously offered as TIED 5233 and OCED 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5313 Overview of Workforce and Adult Education
Description: Organization of workforce and adult education including its history, principles and evolving social, political and economic forces influencing the field. Course previously offered as OAED 5313 and OCED 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5333 Administration and Supervision of Workforce Education Programs
Description: Understanding and critically analyzing the quality of workforce education courses and the value they hold. Course previously offered as OAED 5333 and OCED 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5340 Special Problems in Workforce and Adult Education
Description: Directed independent study of special topics involving assigned readings, library research, field work or a combination of these. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as OCED 5340.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5353 Instructional Strategies for Adults
Description: An analysis and application of the various techniques and materials available to facilitate the learning process in workforce and adult education settings. Process of designing effective learning experiences, planning curriculum and developing competencies of the facilitators. Previously offered as HRAE 5253 and EDLE 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5423 Individualized Competency Based Instruction and Customized Training
Description: Principles, techniques, and technologies for creating and delivering individualized competency-based instruction and customized workplace training. Includes LAP systems and customizing for industry. Course previously offered as TIED 5443 and OCED 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5443 Interpreting Research in Workforce and Adult Education
Description: Seminar on the methods of research, review, synthesis and interpretation with application to particular fields of workforce and adult education. Course previously offered as OAED 5443 and OCED 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5683 Legal Issues in Career and Technical Education
Description: Overview of the law and the legal system, including how to perform legal research using library and internet resources, issues involving student organizations, intellectual property, and distance education. May not be used for degree credit with CTED 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5703 Adult Learning in Diverse Settings
Description: The study of adult learning in diverse geographic and cultural settings. Interaction with experts in the field and reflection upon their experiences after returning from travel. Previously offered as HRAE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5720 Workshop
Description: Professional workshops of various topics and lengths. Each workshop designed to meet unique or special needs of individuals concerned with adult education and workplace learning. Previously offered as OCED 5720. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5730 Special Topics in Adult Education
Description: The practice, theory and research related to a current topic in adult education. Previously offered as HRAE 5730. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5733 Current Issues in Career and Technical Education
Description: Defining current issues, conducting action research and proposing possible solutions to current issues in CTED. Debating opposing views and giving logic and reasoning for each view. May not be used for degree credit with CTED 4673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5833 Global Consulting
Description: The consulting process, including contract, entry, diagnosis, response, disengagement, closure and ethical considerations. The competencies of successful consultants and trainers in the international environment, including cultural adaptations of self and of training materials. Previously offered as HRAE 5833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5880 Internship in Workforce and Adult Education
Description: Supervised experience working in business, industry, human service, or education settings. Previously offered as OCED 5880. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5910 Developing and Analyzing Teaching Content
Description: Provides opportunity for experienced teachers to incorporate the latest workforce and adult education methodology, strategy, and/or technology into their course of study. Previously offered as OCED 5910. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Previously offered as OCED 6000. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6103 Philosophy of Workforce and Adult Education
Description: Alternative perspectives for developing a philosophic position in workforce and adult education. Course previously offered as OAED 6103 and OCED 6103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6110 Graduate Reading in Workforce and Adult Education
Description: Supervised readings of significant literature not included in regularly scheduled courses. Previously offered as OCED 6110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6113 Supervision of Workforce Education Instruction
Description: Theoretical and practical application of current instructional supervision in workforce education setting. Strategies for effective supervision are learned through practice in analyzing teacher instruction for provisional and standard certifications and for industry certified instructors. Course previously offered as OAED 6113 and OCED 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6123 Foundations of Lifelong Learning
Description: The definitions, historical and philosophical development, and the scope and function of lifelong learning. Previously offered as HRAE 6103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6213 Lifelong Learning and Performance
Description: Lifelong learning theory within the context of applications in formal and informal settings in the community as well as in the workplace. Synthesis of research findings on changes of cognitive performance due to aging and analysis of recent literature on participation in adult education and training. Previously offered as OAED 6213 and HRAE 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6223 Current Research in Adult Education
Description: Analysis of the major research trends in the field of adult education. Recent research studies in the field. Previously offered as HRAE 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6233 Managing Knowledge in Learning Organizations
Description: Analyze the knowledge management concepts of informal learning, communities of practice, knowledge/learning transfer, organizational learning, and knowledge creation in learning organizations and workplaces. Conduct self-directed research projects on course-related topics and develop a conceptual map of learning concepts. Previously offered as OCED 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6253 Critical Issues in Adult Education
Description: Exploration of current issues of concern to adult educators from diverse settings. Previously offered as HRAE 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6330 Special Topics in Adult Education
Description: Analysis and critique of the application of adult learning principles and methods in one of the numerous diverse settings in which adult education is practiced. Previously offered as HRAE 6330. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6333 Strategic Planning in Workplace Learning and Organizational Performance
Description: Theory, trends, and competency model development performance areas. Course previously offered as OAED 6333 and OCED 6333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6343 Financing Workforce and Adult Education
Description: Development of conceptual and legal bases for funding public workforce and adult education programs. Sources of funds, distribution strategies, local, state and federal accountability requirements, and fraud and abuse funds. Previously offered as OCED 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6353 Future of Technology, Work and Society
Description: Complex interrelationships among emerging and future technologies, human society, and the definition and evolution of work in a global society. Traditional and emerging theoretical frames for technology and the future. Previously offered as OCED 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6880 Doctoral Internship in Workforce and Adult Education
Description: Directed field experiences related to the participant's area of concentration. Practice and testing ideas, theories and concepts learned in graduate study. Previously offered as OCED 6880. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

DEGREE PROGRAMS

The type of degree offered in each major is listed along with the options and the college(s) in which each may be earned. For details, see appropriate department narrative. Major and option codes are included to assist in completing University forms where major and option information is required. Options are also referred to as concentrations in various areas throughout the catalog.

College of Arts and Sciences

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Acting	AS	BFA	ACT	
American Sign Language Studies	AS	BA	ASLS	
English Interpreting	AS	BA	ASLS	EINT
American Studies	AS	BA/BS	AMST	
American Indian Studies	AS	BA/BS	AMST	AMIS
Business Essentials	AS	BA/BS	AMST	BUES
Pre-Law	AS	BA/BS	AMST	PLAW
Applied Computer Programming	AS	BS	APCP	
Art, Graphic Design and Art History				
Art History	AS	BA	ART	ARTH
Graphic Design	AS	BFA	ART	GRPH
Studio Art	AS	BA	ART	STDA
Studio	AS	BFA	ART	STU
Biochemistry	AS	BS	BIOC	
Biology	AS	BS	BIO	
Allied Health	AS	BS	BIO	ALHT
Environmental Biology	AS	BS	BIO	EB
Pre-Medical Sciences	AS	BS	BIO	PMDS
Secondary Teacher Certification	AS	BS	BIO	STCH
Chemistry	AS	BS	CHEM	
ACS Approved	AS	BS	CHEM	ACS
Pre-Health	AS	BS	CHEM	PHLT
Secondary Teacher Certification	AS	BS	CHEM	STCH
Communication Sciences and Disorders	AS	BS	CDIS	
Computer Science	AS	BS	CS	
Economics	AS	BS	ECON	
General	AS	BA	ECON	GEN
International Economic Relations	AS	BA	ECON	IECR
Pre-Dental	AS	BS	ECON	PDEN
Pre-Medical	AS	BS	ECON	PMED
Pre-Veterinary	AS	BS	ECON	PVET
English	AS	BA	ENGL	
Creative Writing	AS	BA	ENGL	CRWR
Pre-Law	AS	BA	ENGL	PLAW
Professional Writing	AS	BA	ENGL	PRWR
Screen Studies	AS	BA	ENGL	SCST
Environmental Geoscience	AS	BS	EGEO	
French	AS	BA	FREN	
Business Essentials	AS	BA	FREN	BUES
Pre-Law	AS	BA	FREN	PLAW
Geography	AS	BA/BS	GEOG	
Business Essentials	AS	BA/BS	GEOG	BUES
Pre-Law	AS	BA	GEOG	PLAW
Pre-Ministry	AS	BA	GEOG	PMIN
Geology	AS	BS	GEOL	
Business Essentials	AS	BS	GEOL	BUES
Environmental Geology	AS	BS	GEOL	ENVG
Petroleum Geology	AS	BS	GEOL	PETG
Pre-Law	AS	BS	GEOL	PLAW
Secondary Teacher Certification	AS	BS	GEOL	STCH
Geophysics	AS	BS	GPHY	
Geospatial Information Science	AS	BS	GSIS	
German	AS	BA	GRMN	
Business Essentials	AS	BA	GRMN	BUES
Pre-Law	AS	BA	GRMN	PLAW
Global Studies	AS	BA	GLST	
Business Essentials	AS	BA	GLST	BUES
Pre-Law	AS	BA	GLST	PLAW
Pre-Ministry	AS	BA	GLST	PMIN
History	AS	BA	HIST	
Business Essentials	AS	BA	HIST	BUES
Pre-Law	AS	BA	HIST	PLAW
Interdisciplinary Studies	AS	BA/BS	IDST	
Business Essentials	AS	BA/BS	IDST	BUES
Pre-Law	AS	BA/BS	IDST	PLAW
Mathematics	AS	BA/BS	MATH	
Actuarial Science and Financial Mathematics	AS	BS	MATH	ASFM
Applied Mathematics	AS	BS	MATH	AMTH
Data Science	AS	BS	MATH	DS
Pre-Law	AS	BS	MATH	PLAW
Pre-Medical Sciences	AS	BS	MATH	PMDS
Secondary Teacher Certification	AS	BS	MATH	STCH
Medicinal Chemistry	AS	BS	MCHM	
Microbiology/Cell and Molecular Biology	AS	BS	MCMB	

Medical Laboratory Science	AS	BS	MCMB	MDLS
Pre-Medical/Pre-Dental	AS	BS	MCMB	PMPD
Pre-Veterinary	AS	BS	MCMB	PVET
Multimedia Journalism	AS	BA/BS	MMJ	
Music	AS	BA	MUSI	
Jazz Performance	AS	BM	MUSI	JAZP
Music Composition	AS	BA	MUSI	MCOM
Performance	AS	BM	MUSI	PERF
Music Education				
Instrumental/ Vocal Certification	AS	BM	MSED	IVCT
Music Industry	AS	BS	MSIN	
Musical Theatre	AS	BFA	MUTH	
Philosophy	AS	BA	PHIL	
Ethics and Business Essentials	AS	BA	PHIL	EBUE
Ethics and Public Policy	AS	BA	PHIL	EPP
Pre-Law	AS	BA	PHIL	PLAW
Pre-Ministry	AS	BA	PHIL	PMIN
Physics	AS	BS	PHYS	
Applied Physics	AS	BS	PHYS	APPH
Secondary Teacher Certification	AS	BS	PHYS	STCH
Physiology	AS	BS	PHSL	
Pre-Medical Sciences	AS	BS	PHSL	PMDS
Plant Biology	AS	BS	PLB	
Cell Biology and Molecular Genetics	AS	BS	PLB	CBMG
Ecology and Evolutionary Biology	AS	BS	PLB	EEB
Pre-Forensics	AS	BS	PLB	PFRN
Pre-Law/ Environmental Policy	AS	BS	PLB	PLEP
Pre-Pharmacy	AS	BS	PLB	PPH
Political Science	AS	BA/BS	POLS	
Campaigns and Lobbying	AS	BS	POLS	CAML
Global Politics	AS	BA/BS	POLS	GLPO
Practical Politics: Campaign, Lobbying and Policymaking	AS	BA	POLS	PRPO
Pre-Law	AS	BA/BS	POLS	PLAW
Public Policy	AS	BA/BS	POLS	PUBP
Psychology	AS	BA/BS	PSYC	
Business Essentials	AS	BA	PSYC	BUES
Pre-Law	AS	BA	PSYC	PLAW
Pre-Medical	AS	BS	PSYC	PMED
Pre-Occupational Therapy	AS	BS	PSYC	PROT
Pre-Physical Therapy	AS	BS	PSYC	PRPT
Sociology	AS	BA/BS	SOC	
Anthropology	AS	BA/BS	SOC	ANTH
Criminology and Criminal Justice	AS	BA/BS	SOC	CRCJ
Environment and Society	AS	BA/BS	SOC	ENSO
Pre-Law	AS	BS	SOC	PLAW
Pre-Medical Science	AS	BS	SOC	PMDS
Social Services	AS	BA/BS	SOC	SOSV
Spanish	AS	BA	SPAN	
Business Essentials	AS	BA	SPAN	BUES
Pre-Law	AS	BA	SPAN	PLAW
Sports Media	AS	BA/BS	SPM	
Statistics	AS	BS	STAT	
Actuarial Science	AS	BS	STAT	ACSC
Business Essentials	AS	BS	STAT	BUES
Data Science	AS	BS	STAT	DS
Strategic Communication				
Advertising and Public Relations	AS	BA/BS	SC	ADPR
Social Media	AS	BA/BS	SC	SOCM
Sport Communication	AS	BA/BS	SC	SPCO
Theatre	AS	BA	TH	
Zoology	AS	BS	ZOOL	
Ecology and Conservation Biology	AS	BS	ZOOL	ECB
Pre-Medical Sciences	AS	BS	ZOOL	PMDS
Pre-Veterinary Science	AS	BS	ZOOL	PVT
Secondary Teacher Certification	AS	BS	ZOOL	STCH
University Studies	AS	BUS	UNST	
Multidisciplinary Studies	AS	BUS	UNST	MLTI

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Applied Statistics	AS	MS	APST	
Art History	AS	MA	ARTH	
Artificial Intelligence				
Computer Science	AS	MS	AI-AS	CS
Chemistry	AS	MS/PhD	CHEM	
Communication Sciences and Disorders	AS	MS	CDIS	
Computer Science	AS	MS/PhD	CS	
English	AS	MA/PhD	ENGL	
Creative Writing	AS	MFA	ENGL	CRWR
Professional Writing	AS	MA	ENGL	PRWR
Teaching English to Speakers of Other Languages	AS	MA	ENGL	TEOL
Geography	AS	MS/PhD	GEOG	
Geology	AS	MS/PhD	GEOL	
Geoscience	AS	MPSM	GEOS	
Graphic Design	AS	MFA	GRPH	
History	AS	PhD	HIST	

Public History	AS	MA	HIST	PHIS
Integrative Biology	AS	MS/PhD	IB	
Mass Communications	AS	MS	MSCM	
Mathematics	AS	MS/PhD	MATH	
Microbiology/Cell and Molecular Biology	AS	MS/PhD	MCMB	
Music				
Applied Music	AS	MM	MUSI	APMU
Conducting	AS	MM	MUSI	COND
Multiple Woodwinds	AS	MM	MUSI	MMWW
Peace, Conflict, & Security Studies	AS	MA	PCSS	
Philosophy	AS	MA	PHIL	
Physics	AS	MS/PhD	PHYS	
Optics and Photonics	AS	MS	PHYS	OPHO
Plant Biology	AS	MS/PhD	PLB	
Politics and Policy Studies	AS	MA	PPS	
Psychology				
Clinical	AS	PhD	PSYC	CLIN
Experimental Psychology	AS	PhD	PSYC	EXPS
Sociology	AS	MS/PhD	SOC	
Statistics	AS	MS/PhD	STAT	
Theatre	AS	MA	TH	

College of Education and Human Sciences

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Aerospace Administration and Operations				
Aerospace Security	EH	BS	AADO	ASPS
Aviation Management	EH	BS	AADO	AVMG
Professional Pilot	EH	BS	AADO	PRPL
Technical Services Management	EH	BS	AADO	TSM
Apparel Design and Technology	EH	BS	APDT	
Applied Exercise Science				
Pre-Professional	EH	BS	AES	PPRO
Sport and Coaching Science	EH	BS	AES	SPC
Strength and Conditioning	EH	BS	AES	SCON
Early Child Care and Development	EH	BS	ECCD	
Elementary Education	EH	BS	ELEM	
Fashion Merchandising	EH	BS	FMER	
Human Development and Family Science				
Child and Family Services	EH	BS	HDFS	CHFS
Early Childhood Education	EH	BS	HDFS	ECE
Family and Consumer Sciences Education	EH	BS	HDFS	FACS
Interior Design	EH	BS	ID	
Nursing	EH	BSN	NURS	
Nursing: RN to BSN	EH	BS	NRBS	
Nutritional Sciences				
Allied Health	EH	BS	NSCI	ALHT
Dietetics	EH	BS	NSCI	DIET
Human Nutrition/ Pre-Medical Sciences	EH	BS	NSCI	HNPS
Public Health Nutrition	EH	BS	NSCI	PHLN
Public Health				
Community Health	EH	BS	PH	CHLT
Exercise and Health	EH	BS	PH	EAHL
Recreation and Athletic Management				
Recreation Management	EH	BS	RCAM	RM
Recreational Therapy	EH	BS	RT	
Pre-Professional Occupational Therapy	EH	BS	RT	PPOT
Secondary Education				
English	EH	BS	SCED	ENGL
English - Alternative Certification	EH	BS	SCED	EGAC
Mathematics	EH	BS	SCED	MATH
Science	EH	BS	SCED	SCI
Social Studies	EH	BS	SCED	SSTD
Social Studies - Alternative Certification	EH	BS	SCED	SSAC
University Studies	EH	BUS	UNST	
Multidisciplinary Studies	EH	BUS	UNST	MLTI

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Aging Studies	EH	MS	AGSU	
Applied Educational Studies				
Aviation and Space Education	EH	EdD	AEST	AVSE
Aviation and Space	EH	MS	AVSP	
Community Health Sciences	EH	PhD	CHSC	
Counseling				
Mental Health Counseling	EH	MS	COUN	MHC
School Counseling	EH	MS	COUN	SCHC
Counseling Psychology	EH	MS/PhD	CPSY	
Curriculum Studies	EH	PhD	CURS	

College Curriculum and Teaching	EH	PhD	CURS	CCT
Curriculum and Leadership	EH	PhD	CURS	CULE
International and Peace Curriculum	EH	PhD	CURS	IPEC
Design and Merchandising				
Apparel Design and Production	EH	MS	DM	ADP
Digital Design	EH	MS	DM	DGDS
Interior Design	EH	MS	DM	ID
Merchandising	EH	MS	DM	MERC
Retail Merchandising Leadership	EH	MS	DM	RML
Dietetics	EH	MS	DIET	
Education				
Educational Administration	EH	EdS	EDUC	EADM
Learning, Design and Technology	EH	PhD	EDUC	LEDT
Literacies and Language Arts Education	EH	PhD	EDUC	LLAE
Mathematics Education	EH	PhD	EDUC	MATE
Science Education	EH	PhD	EDUC	SCIE
Social Foundations of Education	EH	PhD	EDUC	SFED
Special Education	EH	PhD	EDUC	SPED
Workforce and Adult Education	EH	PhD	EDUC	WAED
Educational Leadership and Policy Studies				
Educational Administration	EH	PhD	ELPS	EADM
Higher Education	EH	PhD	ELPS	HIED
Educational Leadership Studies				
Higher Education	EH	MS	ELS	HIED
School Administration	EH	MS	ELS	SA
Student Affairs	EH	MS	ELS	STUA
Workforce and Adult Education	EH	MS	ELS	WAED
Educational Psychology				
Educational Psychology	EH	MS/PhD	EPSY	EPSY
Research, Evaluation, Measurement and Statistics	EH	MS/PhD	EPSY	REMS
School Psychometrics	EH	MS	EPSY	SCPM
Educational Technology				
Educational Technology	EH	MS	EDTC	EDTC
School Library Media	EH	MS	EDTC	SCLM
Family and Community Services	EH	MS	FCS	
Family and Consumer Sciences Education	EH	MS	FACS	
Family Financial Planning	EH	MS	FFP	
Health and Human Performance	EH	PhD	HHP	
Applied Exercise Science	EH	MS	HHP	XAEX
Health Promotion	EH	MS	HHP	HPRO
Physical Education	EH	MS	HHP	PHED
Health, Leisure and Human Performance				
Health and Human Performance	EH	PhD	HLHP	HHP
Leisure Studies	EH	PhD	HLHP	LEIS
Human Development and Family Science	EH	PhD	HDFS	
Aging Sciences	EH	MS	HDFS	AGS
Applied Human Services	EH	MS	HDFS	AHS
Developmental and Family Science	EH	MS	HDFS	DVFS
Early Childhood Education	EH	MS	HDFS	ECE
Marriage and Family Therapy	EH	MS	HDFS	MFTH
Human Sciences				
Design and Merchandising	EH	PhD	HS	DM
Human Development and Family Science	EH	PhD	HS	HDFS
Language, Learning, and Culture Education	EH	EdS	LLCE	
Learning, Design and Technology	EH	EdD/PhD	LEDT	
Nutritional Sciences	EH	PhD	NSCI	
Dietetics Practice	EH	MS	NSCI	DIPR
Dietetics Research	EH	MS	NSCI	DTRS
Nutrition	EH	MS	NSCI	NUTR
Recreation Management and Recreational Therapy	EH	MS	RMRT	
School Administration	EH	EdD	SA	
School Psychology	EH	EdS/PhD	SPSY	
Social Foundations of Education	EH	MA	SCFD	
Teaching, Learning and Leadership				
Curriculum and Leadership Studies	EH	MS	TLL	CLS

Gifted and Talented Education	EH	MS	TLL	GTED
K-12 Education	EH	MS	TLL	KTED
Mathematics/ Science Education	EH	MS	TLL	MMSE
Reading and Literacy	EH	MS	TLL	REAL
Special Education	EH	MS	TLL	SPED
Workforce and Adult Education	EH	MS	TLL	WAED

College of Engineering, Architecture and Technology

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Aerospace Engineering	EN	BSAE	AERS	
Architectural Design Studies				
Design Management and Leadership	EN	BS	ARDS	DMAN
Design Thinking and Communication	EN	BS	ARDS	DCOM
Design, Culture, and Urban Studies	EN	BS	ARDS	DCUL
Architectural Engineering				
Construction Project Management	EN	BEN	ARCE	CNPM
Structures	EN	BEN	ARCE	STR
Architecture	EN	BAR	ARCH	
Biosystems Engineering	EN	BSBE	BAE	BAE
Bioprocessing and Food Processing	EN	BSBE	BAE	BPFP
Environmental and Natural Resources	EN	BSBE	BAE	ENTR
Machine Systems and Agricultural Engineering	EN	BSBE	BAE	MSAE
Pre-Medical	EN	BSBE	BAE	PMED
Chemical Engineering	EN	BSCH	CHEN	
Biomedical/ Biochemical	EN	BSCH	CHEN	BMBC
Pre-Medical	EN	BSCH	CHEN	PMED
Civil Engineering	EN	BSCV	CIVE	
Environmental	EN	BSCV	CIVE	ENV
Computer Engineering	EN	BSCP	CPE	
Software Engineering	EN	BSCP	CPE	SOFT
Construction Engineering Technology				
Building	EN	BSET	CET	BLDG
Heavy	EN	BSET	CET	HVY
Electrical Engineering	EN	BSEE	ELEN	
Electrical Engineering Technology	EN	BSET	EETE	
Computer	EN	BSET	EETE	COMP
Fire Protection and Safety Engineering Technology	EN	BSET	FPSE	
Industrial Engineering and Management	EN	BSIE	IEM	
Mechanical Engineering	EN	BSME	MEEN	
Fire Protection Systems	EN	BSME	MEEN	FPS
Petroleum	EN	BSME	MEEN	PETR
Pre-Medical	EN	BSME	MEEN	PMED
Mechanical Engineering Technology	EN	BSET	MET	
Mechatronics and Robotics	EN	BS	MERO	
University Studies	EN	BUS	UNST	
Multidisciplinary Studies	EN	BUS	UNST	MLTI

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Artificial Intelligence				
Computer Engineering	EN	MS	AI	CPE
Biosystems Engineering	EN	MS/PhD	BAE	
Chemical Engineering	EN	MS/PhD	CHEN	
Civil Engineering	EN	MS/PhD	CIVE	
Data Science				
Engineering	EN	MS	DS-EN	ENGR
Electrical Engineering	EN	MEN/MS/PhD	ELEN	
Control Systems	EN	MS	ELEN	CTLS
Optics and Photonics	EN	MS	ELEN	OPHO
Engineering and Technology Management	EN	MS	ETM	
Engineering Technology				
Fire Safety and Explosion Protection	EN	MS	ENT	FSEP
Mechatronics and Robotics	EN	MS	ENT	MERO
Environmental Engineering	EN	MS	EVEN	
Fire and Emergency Management Administration	EN	MS/PhD	FEMP	
Industrial Engineering and Management	EN	MS/PhD	IEM	
Operations Research and Analytics	EN	MS	IEM	IEOR
Supply Chain and Logistics	EN	MS	IEM	SCLG
Materials Science and Engineering	EN	MEN/MS/PhD	MSE	

Mechanical and Aerospace Engineering	EN	MEN/MS/PhD	MAE	
Unmanned Aerial Systems	EN	MS/PhD	MAE	UMAS
Petroleum Engineering	EN	MS/PhD	PETE	

Ferguson College of Agriculture

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Agribusiness	FC	BSAG	AGBU	
Accounting Double Major	FC	BSAG	AGBU/ACCT	
Agricultural Communications Double Major	FC	BSAG	AGBU/AGCM	
Community and Regional Analysis	FC	BSAG	AGBU	CRA
Crop and Soil Science	FC	BSAG	AGBU	CASS
Farm and Ranch Management	FC	BSAG	AGBU	FARM
International	FC	BSAG	AGBU	INT
Natural Resources	FC	BSAG	AGBU	NRES
Pre-Law	FC	BSAG	AGBU	PLAW
Pre-Veterinary Business Management	FC	BSAG	AGBU	PVBM
Agricultural Communications	FC	BSAG	AGCM	
Agricultural Economics	FC	BSAG	AGEC	
Agricultural Education				
Multidisciplinary	FC	BSAG	AGED	MULT
Agricultural Leadership	FC	BSAG	AGLE	
Extension Education	FC	BSAG	AGLE	EXTE
International Studies	FC	BSAG	AGLE	INTL
Agricultural Systems Technology	FC	BSAG	AST	
Animal Science				
Business/Pre-Law	FC	BSAG	ANSI	BPLW
General	FC	BSAG	ANSI	GEN
Pre-Veterinary/ Pre-Medical	FC	BSAG	ANSI	PVM
Production and Operations	FC	BSAG	ANSI	PROP
Biochemistry and Molecular Biology	FC	BSAG	BIMB	
Biotechnology	FC	BSAG	BIMB	BIOT
Pre-Medical or Pre-Veterinary Science	FC	BSAG	BIMB	PMPV
Entomology				
Insect Biology and Ecology	FC	BSAG	ENTO	IBAE
Pre-Professional	FC	BSAG	ENTO	PPRO
Environmental Science				
Environmental Policy	FC	BSAG	ENVR	ENVP
Natural Resources	FC	BSAG	ENVR	NRES
Water Resources	FC	BSAG	ENVR	WATR
Food Science	FC	BSAG	FDSC	
Horticulture				
Horticultural Business	FC	BSAG	HORT	HRTB
Horticultural Food Safety	FC	BSAG	HORT	HFS
Horticultural Science	FC	BSAG	HORT	HRTS
Landscape Management	FC	BSAG	HORT	LM
Public Horticulture	FC	BSAG	HORT	PHRT
Turf Management	FC	BSAG	HORT	TURF
Urban Horticulture	FC	BSAG	HORT	URBH
Landscape Architecture	FC	BLA	LA	
Natural Resource Ecology and Management				
Fisheries and Aquatic Ecology	FC	BSAG	NREM	FAEC
Forest Ecology and Management	FC	BSAG	NREM	FOEM
Rangeland Ecology and Management	FC	BSAG	NREM	REM
Wildlife Biology and Pre-Veterinary Science	FC	BSAG	NREM	WBPV
Wildlife Ecology and Management	FC	BSAG	NREM	WLEM
Plant and Soil Sciences				
Agronomic Business	FC	BSAG	PASS	AGB
Crop Production and Management	FC	BSAG	PASS	CPM
Plant Biotechnology and Improvement	FC	BSAG	PASS	PBI
Soil and Water Resources	FC	BSAG	PASS	SAWR
University Studies	FC	BUS	UNST	
Multidisciplinary Studies	FC	BUS	UNST	MLTI

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Agricultural Communications	FC	MS	AGCM	
Agricultural Economics	FC	MS/PhD	AGEC	
Agricultural Education, Communications, and Leadership	FC	PhD	AECL	
Agricultural Education and Leadership	FC	MS	AGEL	
Animal Science	FC	MS/PhD	ANSI	
Biochemistry and Molecular Biology	FC	MS/PhD	BIMB	
Crop Science	FC	PhD	CPSI	
Entomology	FC	PhD	ENTO	
Entomology and Plant Pathology				
Entomology	FC	MS	ENPP	ENTO

Plant Pathology	FC	MS	ENPP	PLP
Environmental Science	FC	MS/PhD	ENVR-FC	
Food Science	FC	MS/PhD	FDSC	
General Agriculture				
Agribusiness	FC	MAG	GNAG	AGBU
Agricultural Leadership	FC	MAG	GNAG	AGLE
Horticulture	FC	MS	HORT	
International Agriculture	FC	MAG/MS	AGIN	
Natural Resource Ecology and Management	FC	MS/PhD	NREM	
Fisheries and Aquatic Ecology	FC	MS/PhD	NREM	FAEC
Forest Resources	FC	MS/PhD	NREM	FTRS
Rangeland Ecology and Management	FC	MS/PhD	NREM	REM
Wildlife Ecology and Management	FC	MS/PhD	NREM	WLEM
Plant and Soil Sciences	FC	MS	PASS	
Plant Pathology	FC	PhD	PLP	
Soil Science	FC	PhD	SOIL	

School of Global Studies

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Global Studies	GL	MS	GL	

Spears School of Business

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Accounting				
External Reporting, Control and Auditing	SB	BSBA	ACCT	ACEX
Internal Reporting, Control and Auditing	SB	BSBA	ACCT	ACIN
Accounting Systems				
Cyber Audit	SB	BSBA	ACSY	CYAU
Data Analytics	SB	BSBA	ACSY	DAN
Data Analytics	SB	BSBA	DAN	
Economics	SB	BSBA	ECON	
Business Economics and Quantitative Studies	SB	BSBA	ECON	BEQS
Pre-Law	SB	BSBA	ECON	PLAW
Entrepreneurship	SB	BSBA	EEE	
Finance	SB	BSBA	FIN	
Commercial Bank Management	SB	BSBA	FIN	CBM
Financial Analyst	SB	BSBA	FIN	FINA
Financial Planning	SB	BSBA	FIN	FINP
Pre-Law	SB	BSBA	FIN	PLAW
General Business	SB	BSBA	GNBU	
Pre-Law	SB	BSBA	GNBU	PLAW
Hospitality and Tourism Management	SB	BSBA	HTM	
Event Management	SB	BSBA	HTM	EVMG
International Business	SB	BSBA	INBU	
Management	SB	BSBA	MGMT	
Business Sustainability and Nonprofit Management	SB	BSBA	MGMT	BSNM
Human Resource Management	SB	BSBA	MGMT	HRM
Management Consulting	SB	BSBA	MGMT	MGMC
Pre-Law	SB	BSBA	MGMT	PLAW
Sports Management	SB	BSBA	MGMT	SPMG
Management Information Systems	SB	BSBA	MIS	
Data Science	SB	BSBA	MIS	DS
Information Assurance	SB	BSBA	MIS	IA
Marketing	SB	BSBA	MKTG	
Marketing Communications Management	SB	BSBA	MKTG	MKCM
Marketing Research and Analytics	SB	BSBA	MKTG	MRA
Professional Selling and Sales Management	SB	BSBA	MKTG	MKPS
Sports Marketing and Revenue Generation	SB	BSBA	MKTG	SMRG
Supply Chain Management	SB	BSBA	MKTG	SCM
Real Estate and Property Management	SB	BSBA	REPM	
University Studies	SB	BUS	UNST	
Multidisciplinary Studies	SB	BUS	UNST	MLTI

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Accounting	SB	MS	ACCT	
Corporate Finance	SB	MS	ACCT	CF
Data Analytics and Systems	SB	MS	ACCT	DAS
Financial Reporting and Auditing	SB	MS	ACCT	FRA
Research Methods	SB	MS	ACCT	ACRM
Tax	SB	MS	ACCT	TAX
Accounting Systems				
Cyber Audit	SB	MS	ACSY	CYAU
Data Analytics	SB	MS	ACSY	DAN
Business Administration	SB	MBA/DBA	BADM	
Accounting	SB	PhD	BADM	ACCT
Entrepreneurship	SB	PhD	BADM	EEE
Executive Research	SB	PhD	BADM	EXRS
Finance	SB	PhD	BADM	FIN

Hospitality and Tourism Management	SB	PhD	BADM	HTM
Management	SB	PhD	BADM	MGMT
Management Science and Information Systems	SB	PhD	BADM	MSIS
Marketing	SB	PhD	BADM	MKTG
Business Analytics and Data Science	SB	MS	BADS	
Advanced Data Science	SB	MS	BADS	ADS
Cybersecurity Analytics	SB	MS	BADS	CYAN
Health Analytics	SB	MS	BADS	HLTA
Marketing Analytics	SB	MS	BADS	MKTA
Economics	SB	MS/PhD	ECON	
Entrepreneurship	SB	MS	EEE	
Hospitality and Tourism Management	SB	MS	HTM	
Management Information Systems	SB	MS	MIS	
Big Data Analytics	SB	MS	MIS	BDA
Cybersecurity	SB	MS	MIS	CYBR
Health Analytics	SB	MS	MIS	HLTA
Quantitative Finance	SB	MS	QF	

Graduate College

Interdisciplinary Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Interdisciplinary Studies	GR	MS	IDST	
Photonics	GR	PhD	PHOT	
Public Health	GR	MPH	PH	
Rural and Underserved Populations	GR	MPH	PH	RUP

College of Veterinary Medicine

Doctor Veterinary Medicine Degree Program

Major/Option	College	Degree	Major Code	Option Code
Comparative Biomedical Sciences	VM	MS/PhD	CBSC	
Doctor of Veterinary Medicine	VM	DVM	VM	

Certificate Programs

Major/Option	College	Degree	Major Code	Option Code
Certificate				
Geographic Information Systems	AS	CERT	GIS	
Undergraduate Certificates				
Accounting, Systems, and Auditing	SB	UCRT	ACSU	
American Sign Language	AS	UCRT	ASLU	
Audiology Assistants	AS	UCRT	AUDU	
Biblical Studies	AS	UCRT	BIBU	
Business Analytics	SB	UCRT	BANU	
Business Essentials	SB	UCRT	BUEU	
Business Finance Essentials	SB	UCRT	BFEU	
Casino, Gaming and Resort Management	SB	UCRT	CGMU	
Communication Sciences and Disorders	AS	UCRT	CSDC	
Computational Economics and Data Analysis	SB	UCRT	CEDU	
Construction	EN	UCRT	CNSU	
Cybersecurity	AS	UCRT	CYBU	
Cyber Systems	SB	UCRT	CSU	
Data Systems	SB	UCRT	DSYU	
Digital Design in Design and Merchandising	EH	UCRT	DDMU	
Digital Studies	AS	UCRT	DGST	
Dyslexia	AS	UCRT	DLXU	
Environmental Studies	AS	UCRT	EVST	
Equine Enterprise Management	FC	UCRT	EEM	
eSports	AS	UCRT	ESPU	
Ethical Leadership		UCRT	ELU	
Ethics	AS	UCRT	ETHU	
Event Management	SB	UCRT	EVMU	
Fashion Design	EH	UCRT	FDEU	
Fashion Design: Digital Product Creation	EH	UCRT	FDDU	
Food Safety	FC	UCRT	SAFU	
Global Beverage Business	SB	UCRT	GBBU	
Information Systems Development	SB	UCRT	ISDU	
Instructional Design	EH	UCRT	INDU	
International Business	SB	UCRT	IBU	
Learning and Motivation	EH	UCRT	LEMU	
Marketing Essentials for Business Success	SB	UCRT	MEU	
Pest Management	FC	UCRT	PESU	
Post-Baccalaureate in Dietetics	EH	UCRT	PBAU	
Pre-Health Care Administration	AS	UCRT	PHCA	
Pre-Medical Sciences	AS	UCRT	PMDS	
Pre-Nursing	EH	UCRT	PNUR	
Product Development for Apparel	EH	UCRT	PDAU	

Professional Spanish	AS	UCRT	PSPU
Property and Real Estate Management	SB	UCRT	PRMU
Public Health	EH	UCRT	PHU
Publishing and Editing	AS	UCRT	PUBU
Sales and Service Excellence	SB	UCRT	SSE
Special Education	EH	UCRT	SPDU
Speech-Language Pathology Assistants	AS	UCRT	SLPU
Sports Marketing and Revenue Generation	SB	UCRT	SMRU
Starting and Growing a New Business	SB	UCRT	SGBU
Supply Chain and Logistics	EN	UCRT	SCLU
Supply Chain Management	SB	UCRT	SUPU
Sustainable Business Management	SB	UCRT	SBM
Teaching English to Speakers of Other Languages	AS	UCRT	TEOU
The Art and Science of Critical Thinking	AS	UCRT	ASCU
Travel and Tourism Management	SB	UCRT	TTMU
Undergraduate Research		UCRT	UR
Graduate Certificates			
3D Fashion Design/Digital Product Creation	EH	GCRT	3DFG
Accounting	SB	GCRT	ACTG
Advanced Sports Medicine Concepts	CG	GCRT	ASMG
Aging Studies	EH	GCRT	AGSG
Aviation/ Aerospace Administration	EH	GCRT	AVAG
Big Data Analytics	GR	GCRT	BDA
Bioinformatics	GR	GCRT	BIOI
Brand Communication	AS	GCRT	BRCG
Building Level Leadership	EH	GCRT	BDLL
Business	SB	GCRT	BUSG
Business Analytics and Data Science	SB	GCRT	BADS
Business Sustainability and Nonprofit Management	SB	GCRT	BSNG
Casino and Gaming Management	SB	GCRT	CGMG
Collaborative Piano	AS	GCRT	CPG
College Teaching	GR	GCRT	CTCH
Comparative and International Education	EH	GCRT	CMIE
Developmental Disabilities	EH	GCRT	DD
Dietetics	EH	GCRT	DIEG
Digital Design in Design & Merchandising	EH	GCRT	DDMG
Digital Forensics & Incident Response	CG	GCRT	DFIG
District Level Leadership	EH	GCRT	DLL
Dyslexia	AS	GCRT	DLXG
Educational and Psychological Measurement	EH	GCRT	EDPM
Effective Teaching in Elementary Schools	EH	GCRT	ETES
Effective Teaching in Secondary Schools	EH	GCRT	ETSS
Elementary Mathematics Specialist	EH	GCRT	ELMS
Energy Business	SB	GCRT	ENBG
Engineering and Technology Management	GR	GCRT	CETM
Entrepreneurship	SB	GCRT	EEEG
Environmental Science with Regulatory Certifications	GR	GCRT	ESRC
Facilitating Career Development	EH	GCRT	FCDG
Family Financial Planning	GR	GCRT	FFPG
Fashion Merchandising	EH	GCRT	FMEG
Finance & Investment Banking	SB	GCRT	FIBG
Food Safety Management	FC	GCRT	FSMG
Food Safety Science	FC	GCRT	FSSG
Forensic Arson, Explosives, Firearms, and Toolmarks Investigation	GR	GCRT	FAFT
Forensic Crime Analysis	CG	GCRT	FCAG
Forensic Investigation of Impaired Driving	CG	GCRT	FIDG
Forensic Investigative Sciences	CG	GCRT	FISG
Forensic Psychology	CG	GCRT	FPSY
Forensic Threat Assessment and Management	CG	GCRT	FTAG

Forensic Weapons of Mass Destruction	CG	GCRT	FWMG
Geographic Information Systems	AS	GCRT	GISG
Global Issues	GL	GCRT	GLI
Grassland Management	GR	GCRT	GRMT
Health Analytics	SB	GCRT	HLTA
Health Care Administration	CG	GCRT	HCAG
Health Care Administration Compliance	CG	GCRT	HCCG
Health Care Administration Finance	CG	GCRT	HCAF
Health Care Administration Global Health	CG	GCRT	HCGH
Hidden Student Populations	EH	GCRT	HSPG
Hospitality & Tourism Analytics	SB	GCRT	HTAG
Human Resource Management	SB	GCRT	HRM
Infant Mental Health	GR	GCRT	IMH
Information Assurance	SB	GCRT	IAG
Innovative Leadership	SB	GCRT	INLG
Integrative Design of Building Envelope	EN	GCRT	IDBE
Interdisciplinary Toxicology	GR	GCRT	ITOX
International Disaster and Emergency Management	GL	GCRT	IDEM
K-12 STEM Educator	EH	GCRT	KSED
Learning and Motivation	EH	GCRT	LEMG
Marketing Analytics	SB	GCRT	MKTA
Mathematics	AS	GCRT	MATG
Medical Sciences	GR	GCRT	MSCI
Museum and Curatorial Studies	AS	GCRT	MCS
Neuroscience	GR	GCRT	NEUG
Non-Profit Management	SB	GCRT	NPM
Online Teaching	GR	GCRT	OLT
Program Evaluation	GR	GCRT	PREV
Public Health in Rural and Underserved Populations	GR	GCRT	PHG
Quantum Information Science	AS	GCRT	QISG
Recreation and Leisure Management	EH	GCRT	RCLM
School Library Certification	EH	GCRT	SCL
Special Education	EH	GCRT	SPED
Sport Communication	AS	GCRT	SPCG
Statistical Methods and Analyses in Educational and Behavioral Sciences	EH	GCRT	SMAE
Substance Abuse Counseling	EH	GCRT	SACG
Supply Chain and Logistics	EN	GCRT	SCLG
Teaching English to Speakers of Other Languages	GR	GCRT	TEOG
Tribal Health Care Administration	CG	GCRT	THCG
Workforce and Adult Education	GR	GCRT	WAED

Center for Health Sciences

Doctor of Osteopathic Medicine Degree Program

Major/Option	College	Degree	Major Code	Option Code
Doctor of Osteopathic Medicine	OM	DO	OM	

OSU Graduate Programs Offered Through The Center for Health Sciences

Major/Option	College	Degree	Major Code	Option Code
Artificial Intelligence				
Athletic Training	CG	MAT	ATRN	
Health Care Administration	CG	MS	AI-CG	HCA
Biomedical Sciences	CG	MS/PhD	BMED	
Forensic Sciences	CG	DFS/MS/PhD	FOSC	
Arson, Explosives, Firearms and Toolmarks Investigation	CG	MS	FOSC	FAFT
Forensic Science Administration	CG	MS	FOSC	FSA
Global Health	CG	MS	GLHE	
Health Care Administration	CG	DHCA	HCA	
Administration	CG	MS	HCA	ADMN
Leadership and Entrepreneurship	CG	MS	HCA	LAE
Medical Sciences	CG	MS	MSCI	
Physician Assistant Studies	CG	MS	PHAS	

College of Professional Studies

Undergraduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Entertainment Media	PS	BPS	ENME	
Health Care Administration	PS	BPS	HCA	

Organizational Leadership	PS	BPS	ORGL
Public Safety	PS	BPS	PSAF

Graduate Degree Programs

Major/Option	College	Degree	Major Code	Option Code
Environmental Science				
Environmental Management Professional Science Masters	PS	MS	ENVR-PS	PSM

College Abbreviations

Banner Code	Abbreviations	College Name
AS	CAS	College of Arts and Sciences
CG	CHS	Center for Health Sciences Graduate Programs
EH	EHS	College of Education and Human Sciences
EN	CEAT	College of Engineering, Architecture and Technology
FC	AGRI	Ferguson College of Agriculture
GR	GC	Graduate College
GL	GL	School of Global Studies
PS	PS	College of Professional Studies
SB	SSB	Spears School of Business
VM	CVM	College of Veterinary Medicine

Degree Abbreviations

BA	Bachelor of Arts
BAR	Bachelor of Architecture
BEN	Bachelor of Engineering
BFA	Bachelor of Fine Arts
BLA	Bachelor of Landscape Architecture
BM	Bachelor of Music
BPS	Bachelor of Professional Studies
BS	Bachelor of Science
BSAE	Bachelor of Science in Aerospace Engineering
BSAG	Bachelor of Science in Agricultural Sciences and Natural Resources
BSBA	Bachelor of Science in Business Administration
BSBE	Bachelor of Science in Biosystems Engineering
BSCH	Bachelor of Science in Chemical Engineering
BSCP	Bachelor of Science in Computer Engineering
BSCV	Bachelor of Science in Civil Engineering
BSEE	Bachelor of Science in Electrical Engineering
BSET	Bachelor of Science in Engineering Technology
BSHS	Bachelor of Science in Human Sciences
BSIE	Bachelor of Science in Industrial Engineering and Management
BSME	Bachelor of Science in Mechanical Engineering
BSN	Bachelor of Science in Nursing
BUS	Bachelor of University Studies
MA	Master of Arts
MAG	Master of Agriculture
MAT	Master of Athletic Training
MATT	Master of Arts in Teaching
MBA	Master of Business Administration
MEN	Master of Engineering
MFA	Master of Fine Arts
MM	Master of Music
MPH	Master of Public Health
MPSM	Professional Science Masters
MS	Master of Science
DFS	Doctor of Forensic Sciences
EdS	Specialist in Education
EdD	Doctor of Education
PhD	Doctor of Philosophy
DVM	Doctor of Veterinary Medicine
DHCA	Doctor of Healthcare Administration

Undergraduate Degree Requirements A-Z

A

- Accounting Systems: Cyber Audit, BSBA (p. 2862)
- Accounting Systems: Data Analytics, BSBA (p. 2864)
- Accounting: External Reporting, Control, and Auditing, BSBA (p. 2867)
- Accounting: Internal Reporting, Control and Auditing, BSBA (p. 2870)
- Acting, BFA (p. 1959)
- Aerospace Administration and Operations: Aerospace Security, BS (p. 2146)
- Aerospace Administration and Operations: Aviation Management, BS (p. 2149)
- Aerospace Administration and Operations: Professional Pilot, BS (p. 2152)
- Aerospace Administration and Operations: Technical Service Management, BS (p. 2154)
- Aerospace Engineering, BSAE (p. 2436)
- Agribusiness, BSAG (p. 2496)
- Agribusiness: Accounting Double Major, BSAG (p. 2498)
- Agribusiness: Agricultural Communications Double Major, BSAG (p. 2500)

- Agribusiness: Community and Regional Analysis, BSAG (p. 2502)
- Agribusiness: Crop and Soil Sciences, BSAG (p. 2504)
- Agribusiness: Farm and Ranch Management, BSAG (p. 2506)
- Agribusiness: International, BSAG (p. 2508)
- Agribusiness: Natural Resources, BSAG (p. 2510)
- Agribusiness: Pre-Law, BSAG (p. 2512)
- Agribusiness: Pre-Veterinary Business Management, BSAG (p. 2515)
- Agricultural Communications, BSAG (p. 2483)
- Agricultural Economics, BSAG (p. 2518)
- Agricultural Education: Multidisciplinary, BSAG (p. 2527)
- Agricultural Leadership, BSAG (p. 2533)
- Agricultural Leadership: Extension Education, BSAG (p. 2535)
- Agricultural Leadership: International Studies, BSAG (p. 2537)
- Agricultural Systems Technology, BSAG (p. 2588)
- American Sign Language Studies, BA (p. 1479)
- American Sign Language Studies: ASL - English Interpreting, BA (p. 1482)
- American Studies, BA (p. 1034)
- American Studies, BS (p. 1038)
- American Studies: American Indian Studies, BA (p. 1042)
- American Studies: American Indian Studies, BS (p. 1046)
- American Studies: Business Essentials, BA (p. 1050)
- American Studies: Business Essentials, BS (p. 1054)
- American Studies: Pre-Law, BA (p. 1058)
- American Studies: Pre-Law, BS (p. 1061)
- Animal Science: Business/Pre-Law, BSAG (p. 2552)
- Animal Science: General Option, BSAG (p. 2554)
- Animal Science: Pre-Veterinary/Pre-Medical, BSAG (p. 2556)
- Animal Science: Production and Operations, BSAG (p. 2558)
- Apparel Design and Technology, BS (p. 1989)
- Applied Computer Programming, BS (p. 1242)
- Applied Exercise Science: Pre-Professional, BS (p. 2180)
- Applied Exercise Science: Sport and Coaching Science, BS (p. 2183)
- Applied Exercise Science: Strength and Conditioning, BS (p. 2185)
- Architectural Design Studies: Design Management and Leadership, BS (p. 2459)
- Architectural Design Studies: Design Thinking and Communication, BS (p. 2461)
- Architectural Design Studies: Design, Culture and Urban Studies, BS (p. 2463)
- Architectural Engineering: Construction Project Management, BEN (p. 2465)
- Architectural Engineering: Structures, BEN (p. 2467)
- Architecture, BAR (p. 2472)
- Art: Art History, BA (p. 1084)
- Art: Graphic Design, BFA (p. 1088)
- Art: Studio Art, BA (p. 1092)
- Art: Studio, BFA (p. 1096)

B

- Biochemistry and Molecular Biology, BSAG (p. 2574)
- Biochemistry and Molecular Biology: Biotechnology, BSAG (p. 2576)
- Biochemistry and Molecular Biology: Pre-Medical or Pre-Veterinary Science, BSAG (p. 2578)
- Biochemistry, BS (p. 1193)
- Biology, BS (p. 1120)
- Biology: Allied Health, BS (p. 1123)
- Biology: Environmental Biology, BS (p. 1126)
- Biology: Pre-Medical Sciences, BS (p. 1129)
- Biology: Secondary Teacher Certification, BS (p. 1132)
- Biosystems Engineering: Bioprocessing & Food Processing, BSBE (p. 2590)
- Biosystems Engineering: Biosystems Engineering, BSBE (p. 2592)
- Biosystems Engineering: Environmental and Natural Resources, BSBE (p. 2594)
- Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE (p. 2596)
- Biosystems Engineering: Pre-Medical, BSBE (p. 2598)

C

- Chemical Engineering, BSCH (p. 2290)
- Chemical Engineering: Biomedical/Biochemical, BSCH (p. 2292)
- Chemical Engineering: Pre-Medical, BSCH (p. 2294)
- Chemistry (Approved by the American Chemical Society), BS (p. 1196)
- Chemistry, BS (p. 1199)
- Chemistry: Pre-Health, BS (p. 1202)
- Chemistry: Secondary Teacher Certification, BS (p. 1205)
- Civil Engineering, BSCV (p. 2318)
- Civil Engineering: Environmental, BSCV (p. 2320)
- Communication Sciences and Disorders, BS (p. 1222)
- Computer Engineering, BSCP (p. 2341)
- Computer Engineering: Software Engineering, BSCP (p. 2343)
- Computer Science, BS (p. 1246)
- Construction Engineering Technology: Building, BSET (p. 2367)
- Construction Engineering Technology: Heavy, BSET (p. 2369)

D

- Data Analytics, BSBA (p. 2836)

E

- Early Child Care and Development, BS (p. 2032)
- Economics, BS (p. 1263)
- Economics, BSBA (p. 2736)
- Economics: Business Economics and Quantitative Studies, BSBA (p. 2738)
- Economics: General Option, BA (p. 1266)
- Economics: International Economics Relations, BA (p. 1269)
- Economics: Pre-Dental, BS (p. 1272)
- Economics: Pre-Law, BSBA (p. 2740)
- Economics: Pre-Medical, BS (p. 1275)
- Economics: Pre-Veterinary, BS (p. 1278)
- Electrical Engineering Technology, BSET (p. 2406)
- Electrical Engineering Technology: Computer, BSET (p. 2408)
- Electrical Engineering, BSEE (p. 2346)

- Elementary Education, BS (p. 2236)
- English, BA (p. 1301)
- English: Creative Writing, BA (p. 1304)
- English: Pre-Law, BA (p. 1307)
- English: Professional Writing, BA (p. 1310)
- English: Screen Studies, BA (p. 1313)
- Entertainment Media, BPS (p. 3325)
- Entomology: Insect Biology and Ecology, BSAG (p. 2607)
- Entomology: Pre-Professional, BSAG (p. 2609)
- Entrepreneurship, BSBA (p. 2879)
- Environmental Geoscience, BS (p. 1403)
- Environmental Science: Environmental Policy, BSAG (p. 2622)
- Environmental Science: Natural Resources, BSAG (p. 2624)
- Environmental Science: Water Resources, BSAG (p. 2626)

F

- Fashion Merchandising, BS (p. 1996)
- Finance: Commercial Bank Management Option, BSBA (p. 2757)
- Finance: Financial Analyst Option, BSBA (p. 2759)
- Finance: Financial Planning, BSBA (p. 2761)
- Finance: General Option, BSBA (p. 2763)
- Finance: Pre-Law, BSBA (p. 2765)
- Fire Protection and Safety Engineering Technology, BSET (p. 2373)
- Food Science, BSAG (p. 2563)
- French, BA (p. 1488)
- French: Business Essentials, BA (p. 1491)
- French: Pre-Law, BA (p. 1494)

G

- General Business, BSBA (p. 2743)
- General Business: Pre-Law, BSBA (p. 2745)
- Geography, BA (p. 1350)
- Geography, BS (p. 1353)
- Geography: Business Essentials, BA (p. 1356)
- Geography: Business Essentials, BS (p. 1359)
- Geography: Pre-Law, BA (p. 1362)
- Geography: Pre-Ministry, BA (p. 1365)
- Geology, BS (p. 1406)
- Geology: Business Essentials, BS (p. 1409)
- Geology: Environmental Geology, BS (p. 1412)
- Geology: Petroleum Geology, BS (p. 1415)
- Geology: Pre-Law, BS (p. 1418)
- Geology: Secondary Teacher Certification, BS (p. 1421)
- Geophysics, BS (p. 1425)
- Geospatial Information Science, BS (p. 1368)
- German, BA (p. 1498)
- German: Business Essentials, BA (p. 1501)
- German: Pre-Law, BA (p. 1504)
- Global Studies, BA (p. 1373)
- Global Studies: Business Essentials, BA (p. 1377)
- Global Studies: Pre-Law, BA (p. 1381)
- Global Studies: Pre-Ministry, BA (p. 1384)

H

- Health Care Administration, BPS (p. 3327)
- History, BA (p. 1451)
- History: Business Essentials, BA (p. 1455)
- History: Pre-Law, BA (p. 1459)
- Horticulture: Horticultural Business, BSAG (p. 2640)
- Horticulture: Horticultural Food Safety, BSAG (p. 2642)
- Horticulture: Horticultural Science, BSAG (p. 2644)
- Horticulture: Landscape Management, BSAG (p. 2646)
- Horticulture: Public Horticulture, BSAG (p. 2648)
- Horticulture: Turf Management, BSAG (p. 2650)
- Horticulture: Urban Horticulture, BSAG (p. 2652)
- Hospitality and Tourism Management, BSBA (p. 2781)
- Hospitality and Tourism Management: Event Management, BSBA (p. 2783)
- Human Development and Family Science: Child and Family Services, BS (p. 2034)
- Human Development and Family Science: Early Childhood Education, BS (p. 2037)
- Human Development and Family Science: Family & Consumer Sciences Education, BS (p. 2040)

I

- Industrial Engineering and Management, BSIE (p. 2389)
- Interdisciplinary Studies, BA (p. 1655)
- Interdisciplinary Studies, BS (p. 1658)
- Interdisciplinary Studies: Business Essentials, BA (p. 1661)
- Interdisciplinary Studies: Business Essentials, BS (p. 1664)
- Interdisciplinary Studies: Pre-Law, BA (p. 1667)
- Interdisciplinary Studies: Pre-Law, BS (p. 1670)
- Interior Design, BS (p. 1999)
- International Business, BSBA (p. 2894)

L

- Landscape Architecture, BLA (p. 2654)

M

- Management Information Systems, BSBA (p. 2843)
- Management Information Systems: Data Science, BSBA (p. 2846)
- Management Information Systems: Information Assurance, BSBA (p. 2848)
- Management, BSBA (p. 2807)
- Management: Business Sustainability and Nonprofit Management, BSBA (p. 2809)
- Management: Human Resource Management, BSBA (p. 2812)
- Management: Management Consulting, BSBA (p. 2814)
- Management: Pre-Law, BSBA (p. 2816)
- Management: Sports Management, BSBA (p. 2818)
- Marketing, BSBA (p. 2900)
- Marketing: Marketing Communications Management, BSBA (p. 2902)
- Marketing: Marketing Research and Analytics, BSBA (p. 2904)
- Marketing: Professional Selling and Sales Management, BSBA (p. 2906)

- Marketing: Sports Marketing and Revenue Generation, BSBA (p. 2908)
- Marketing: Supply Chain Management, BSBA (p. 2910)
- Mathematics, BA (p. 1543)
- Mathematics, BS (p. 1546)
- Mathematics: Actuarial Science and Financial Mathematics, BS (p. 1549)
- Mathematics: Applied Mathematics, BS (p. 1552)
- Mathematics: Data Science, BS (p. 1556)
- Mathematics: Pre-Law, BS (p. 1559)
- Mathematics: Pre-Medical Sciences, BS (p. 1562)
- Mathematics: Secondary Teacher Certification, BS (p. 1565)
- Mechanical Engineering Technology, BSET (p. 2410)
- Mechanical Engineering, BSME (p. 2438)
- Mechanical Engineering: Fire Protection Systems, BSME (p. 2440)
- Mechanical Engineering: Petroleum, BSME (p. 2442)
- Mechanical Engineering: Pre-Medical, BSME (p. 2444)
- Mechatronics and Robotics, BS (p. 2414)
- Medicinal Chemistry, BS (p. 1208)
- Microbiology/Cell & Molecular Biology, BS (p. 1627)
- Microbiology/Cell & Molecular Biology: Medical Laboratory Science, BS (p. 1630)
- Microbiology/Cell and Molecular Biology: Pre-Medical/Pre-Dental, BS (p. 1633)
- Microbiology/Cell and Molecular Biology: Pre-Veterinary, BS (p. 1637)
- Multimedia Journalism, BA (p. 1585)
- Multimedia Journalism, BS (p. 1588)
- Music Education: Instrumental/Vocal Certification, BM (p. 1699)
- Music Industry, BS (p. 1704)
- Music, BA (p. 1707)
- Music: Jazz Performance, BM (p. 1710)
- Music: Music Composition, BA (p. 1713)
- Music: Performance, BM (p. 1716)
- Musical Theatre, BFA (p. 1964)

N

- Natural Resource Ecology & Management: Fisheries & Aquatic Ecology, BSAG (p. 2674)
- Natural Resource Ecology & Management: Forest Ecology & Management, BSAG (p. 2676)
- Natural Resource Ecology & Management: Rangeland Ecology & Management, BSAG (p. 2678)
- Natural Resource Ecology & Management: Wildlife Biology & Preveterinary Science, BSAG (p. 2681)
- Natural Resource Ecology & Management: Wildlife Ecology & Management, BSAG (p. 2684)
- Nursing, BSN (p. 2092)
- Nursing: RN to BSN, BS (p. 2094)
- Nutritional Sciences: Allied Health, BS (p. 2058)
- Nutritional Sciences: Dietetics, BS (p. 2061)
- Nutritional Sciences: Human Nutrition/Pre-Medical Sciences, BS (p. 2063)
- Nutritional Sciences: Public Health Nutrition, BS (p. 2066)

O

- Organizational Leadership, BPS (p. 3328)

P

- Philosophy, BA (p. 1740)
- Philosophy: Ethics and Business Essentials, BA (p. 1743)
- Philosophy: Ethics and Public Policy, BA (p. 1746)
- Philosophy: Pre-Law, BA (p. 1749)
- Philosophy: Pre-Ministry, BA (p. 1751)
- Physics, BS (p. 1768)
- Physics: Applied Physics, BS (p. 1771)
- Physics: Secondary Teacher Certification, BS (p. 1773)
- Physiology, BS (p. 1135)
- Physiology: Pre-Medical Sciences, BS (p. 1138)
- Plant and Soil Sciences: Agronomic Business, BSAG (p. 2702)
- Plant and Soil Sciences: Crop Production and Management, BSAG (p. 2704)
- Plant and Soil Sciences: Plant Biotechnology and Improvement, BSAG (p. 2706)
- Plant and Soil Sciences: Soil and Water Resources, BSAG (p. 2708)
- Plant Biology, BS (p. 1142)
- Plant Biology: Cell Biology and Molecular Genetics, BS (p. 1145)
- Plant Biology: Ecology and Evolutionary Biology, BS (p. 1148)
- Plant Biology: Pre-Forensics, BS (p. 1151)
- Plant Biology: Pre-Law Environmental Policy, BS (p. 1154)
- Plant Biology: Pre-Pharmacy, BS (p. 1157)
- Political Science, BA (p. 1794)
- Political Science, BS (p. 1797)
- Political Science: Campaigns and Lobbying, BS (p. 1800)
- Political Science: Global Politics, BA (p. 1803)
- Political Science: Global Politics, BS (p. 1806)
- Political Science: Practical Politics - Campaigning, Lobbying and Policymaking, BA (p. 1809)
- Political Science: Pre-Law, BA (p. 1812)
- Political Science: Pre-Law, BS (p. 1815)
- Political Science: Public Policy, BA (p. 1818)
- Political Science: Public Policy, BS (p. 1821)
- Psychology, BA (p. 1842)
- Psychology, BS (p. 1846)
- Psychology: Business Essentials, BA (p. 1849)
- Psychology: Pre-Law, BA (p. 1852)
- Psychology: Pre-Med, BS (p. 1856)
- Psychology: Pre-Occupational Therapy, BS (p. 1860)
- Psychology: Pre-Physical Therapy, BS (p. 1863)
- Public Health: Community Health, BS (p. 2100)
- Public Health: Exercise and Health, BS (p. 2102)
- Public Safety, BPS (p. 3329)

R

- Real Estate and Property Management, BSBA (p. 2787)
- Recreation and Athletic Management: Recreation Management, BS (p. 2187)

- Recreational Therapy, BS (p. 2191)
- Recreational Therapy: Pre-Professional Occupational Therapy, BS (p. 2193)

S

- Secondary Education: English - Alternative Certification, BS (p. 2240)
- Secondary Education: English, BS (p. 2242)
- Secondary Education: Mathematics, BS (p. 2245)
- Secondary Education: Science, BS (p. 2248)
- Secondary Education: Social Studies - Alternative Education, BS (p. 2254)
- Secondary Education: Social Studies, BS (p. 2256)
- Sociology, BA (p. 1888)
- Sociology, BS (p. 1891)
- Sociology: Anthropology, BA (p. 1894)
- Sociology: Anthropology, BS (p. 1897)
- Sociology: Criminology and Criminal Justice, BA (p. 1900)
- Sociology: Criminology and Criminal Justice, BS (p. 1903)
- Sociology: Environment and Society, BA (p. 1906)
- Sociology: Environment and Society, BS (p. 1909)
- Sociology: Pre-Law, BS (p. 1912)
- Sociology: Pre-Medical Science, BS (p. 1915)
- Sociology: Social Services, BA (p. 1918)
- Sociology: Social Services, BS (p. 1921)
- Spanish, BA (p. 1515)
- Spanish: Business Essentials, BA (p. 1518)
- Spanish: Pre-Law, BA (p. 1521)
- Sports Media, BA (p. 1591)
- Sports Media, BS (p. 1594)
- Statistics, BS (p. 1936)
- Statistics: Actuarial Science, BS (p. 1939)
- Statistics: Business Essentials, BS (p. 1942)
- Statistics: Data Science, BS (p. 1945)
- Strategic Communication: Advertising and Public Relations, BA (p. 1597)
- Strategic Communication: Advertising and Public Relations, BS (p. 1600)
- Strategic Communication: Social Media, BA (p. 1603)
- Strategic Communication: Social Media, BS (p. 1606)
- Strategic Communication: Sport Communication, BA (p. 1609)
- Strategic Communication: Sport Communication, BS (p. 1612)

T

- Theatre, BA (p. 1968)

U

- University Studies, BUS (p. 1002)
- University Studies: Multidisciplinary Studies, BUS (p. 1003)

Z

- Zoology, BS (p. 1161)
- Zoology: Ecology and Conservation Biology, BS (p. 1164)
- Zoology: Pre-Medical Sciences, BS (p. 1167)
- Zoology: Pre-Veterinary Sciences, BS (p. 1170)
- Zoology: Secondary Teacher Certification, BS (p. 1173)

Undergraduate Minors

A

- Accounting (ACCT), Minor (p. 2861)
- Actuarial Science (ACSC), Minor (p. 1541)
- Aerospace Administration and Operations: Aerospace Security (AAAS), Minor (p. 2145)
- Aerospace Administration and Operations: Aviation Management (AAAM), Minor (p. 2148)
- Aerospace Administration and Operations: Professional Pilot (AAPP), Minor (p. 2151)
- Aerospace Studies (AERO), Minor (p. 1026)
- African American and Africana Studies (AFAA), Minor (p. 1644)
- Aging Services (ASVC), Minor (p. 2030)
- Agricultural Economics and Agribusiness (AEAB), Minor (p. 2517)
- Agricultural Leadership (AGLE), Minor (p. 2532)
- Agricultural Real Estate Appraisal (AREA), Minor (p. 2520)
- Agronomy (AGRN), Minor (p. 2701)
- American Indian Studies (AMIS), Minor (p. 1645)
- American Sign Language (ASL), Minor (p. 1478)
- American Studies (AMST), Minor (p. 1033)
- Ancient and Medieval Studies (AAMS), Minor (p. 1449)
- Animal Science (ANSI), Minor (p. 2551)
- Anthropology (ANTH), Minor (p. 1884)
- Applied Computer Programming (APCP), Minor (p. 1241)
- Applied Music (APMU), Minor (p. 1695)
- Applied Statistics (APST), Minor (p. 1933)
- Arabic (ARB), Minor (p. 1485)
- Architectural Studies: Architecture and Entrepreneurship (ASAE), Minor (p. 2469)
- Architectural Studies: Design (ASDS), Minor (p. 2470)
- Architectural Studies: History and Theory (ASHT), Minor (p. 2471)
- Art History (ARTH), Minor (p. 1083)
- Arts Administration (AADM), Minor (p. 1962)
- Asian Studies (ASTD), Minor (p. 1646)

B

- Biochemistry (BIOC), Minor (p. 2573)
- Biology (BIO), Minor (p. 1119)
- Business Sustainability and Nonprofit Management (BSNM), Minor (p. 2804)

C

- Campaigns and Lobbying (CAML), Minor (p. 1789)
- Central Asian Studies (CAST), Minor (p. 1647)
- Chemistry (CHEM), Minor (p. 1211)
- Child Development (CHDV), Minor (p. 2031)
- Chinese (CHIN), Minor (p. 1486)
- Classical Studies (CLST), Minor (p. 1648)
- Cognitive Science (CSCI), Minor (p. 1838)

- Communication Sciences and Disorders (CDIS), Minor (p. 1221)
- Communication Studies (CMST), Minor (p. 1839)
- Computer Engineering (CPE), Minor (p. 2340)
- Computer Science (CS), Minor (p. 1245)
- Construction (CNST), Minor (p. 2366)
- Creative Writing (CRWR), Minor (p. 1299)
- Creativity Studies (CRST), Minor (p. 2156)
- Criminology and Criminal Justice (CRCJ), Minor (p. 1885)

D

- Dance (DANC), Minor (p. 1963)
- Data Analytics for Engineers (DAEN), Minor (p. 2388)
- Data Science (DS), Minor (p. 2838)

E

- Economics (Arts and Sciences) (ECAS), Minor (p. 1262)
- Economics (ECBU), Minor (p. 2735)
- Electrical Engineering (ELEN), Minor (p. 2345)
- Emergency Management (EM), Minor (p. 2372)
- Energy Finance (EFIN), Minor (p. 2755)
- English (ENGL), Minor (p. 1300)
- Entomology (ENTO), Minor (p. 2606)
- Entrepreneurship (EEE), Minor (p. 2878)
- Environmental Economics, Politics and Policy (EEPP), Minor (p. 2521)
- Environmental Engineering (EVEN), Minor (p. 2322)
- Environmental Science (ENVR), Minor (p. 2621)
- Ethics (ETHC), Minor (p. 1737)
- European Studies (EUST), Minor (p. 1649)
- Event Management (EVMG), Minor (p. 2778)

F

- Fashion Merchandising (FMER), Minor (p. 1995)
- Finance (FIN), Minor (p. 2756)
- Fisheries and Aquatic Ecology (FAEC), Minor (p. 2672)
- Food Science (FDSC), Minor (p. 2562)
- Forestry (FOR), Minor (p. 2673)
- French (FREN), Minor (p. 1487)

G

- Gender, Women's and Sexuality Studies (GWS), Minor (p. 1325)
- General Business (GNBU), Minor (p. 2742)
- Geography (GEOG), Minor (p. 1349)
- Geology (GEOL), Minor (p. 1424)
- Geophysics (GPHY), Minor (p. 1428)
- Geospatial Information Technologies (GSIT), Minor (p. 1371)
- German (GRMN), Minor (p. 1497)
- Global Studies (GLST), Minor (p. 1372)
- Greek (GREK), Minor (p. 1507)

H

- Hispanic and Latin American Studies (HLAS), Minor (p. 1651)
- History (HIST), Minor (p. 1450)
- Horticulture (HORT), Minor (p. 2639)
- Hospitality Business Administration (HOSB), Minor (p. 2785)
- Human Resource Management (HRM), Minor (p. 2805)
- Human Services (HSVC), Minor (p. 2043)

I

- Information Assurance (IA), Minor (p. 2840)
- Intelligence and Security Analysis (INSA), Minor (p. 1790)
- International Business (INBU), Minor (p. 2893)
- International Studies (INTL), Minor (p. 2717)

J

- Japanese (JPN), Minor (p. 1508)
- Jazz (JAZZ), Minor (p. 1696)

K

- Korean (KRN), Minor (p. 1509)

L

- Latin (LATN), Minor (p. 1510)
- Law and Legal Studies (LLS), Minor (p. 1791)
- Learning and Motivation (LEMO), Minor (p. 2158)
- Linguistics (LING), Minor (p. 1316)

M

- Management (MGMT), Minor (p. 2806)
- Management Information Systems (MIS), Minor (p. 2842)
- Marketing (MKTG), Minor (p. 2898)
- Mathematics (MATH), Minor (p. 1542)
- Mechatronic Engineering Technology for EET Students (EETM), Minor (p. 2412)
- Mechatronic Engineering Technology for MET Students (METM), Minor (p. 2413)
- Microbiology (MICR), Minor (p. 1626)
- Middle East Studies (MES), Minor (p. 1652)
- Military Science (MLSC), Minor (p. 1642)
- Music (MUSI), Minor (p. 1697)
- Music Composition and Theory (MUCT), Minor (p. 1698)

N

- Natural Resource Ecology and Management (NREM), Minor (p. 2686)
- Neuroscience (NEUR), Minor (p. 1840)
- Nuclear Engineering (NENG), Minor (p. 2276)
- Nutritional Sciences (NSCI), Minor (p. 2057)

O

- Oceanography (OCEN), Minor (p. 1429)

P

- Pest Management (PEST), Minor (p. 2611)
- Petroleum Engineering (PETE), Minor (p. 2296)
- Philosophy (PHIL), Minor (p. 1739)
- Physics (PHYS), Minor (p. 1767)

- Plant Biology (PLB), Minor (p. 1141)
- Political Science (POLS), Minor (p. 1792)
- Pre-Art Therapy (PART), Minor (p. 1100)
- Pre-Counseling (PCOU), Minor (p. 2096)
- Professional Chinese (PRCH), Minor (p. 1511)
- Professional Writing (PRWR), Minor (p. 1317)
- Psychology (PSYC), Minor (p. 1841)
- Public Health (PH), Minor (p. 2098)
- Public School Support Specialist for Children At-Risk (PSSC), Minor (p. 2239)

R

- Rangeland Ecology and Management (REM), Minor (p. 2687)
- Recreation Management (RM), Minor (p. 2190)
- Religious Studies (REL), Minor (p. 1872)
- Russian (RUSS), Minor (p. 1513)
- Russian and East European Studies (REES), Minor (p. 1653)

S

- Safety and Exposure Sciences (SAES), Minor (p. 2376)
- Screen Studies (SCST), Minor (p. 1319)
- Social Justice (SOJU), Minor (p. 1886)
- Sociology (SOC), Minor (p. 1887)
- Soil Science (SOIL), Minor (p. 2710)
- Spanish (SPAN), Minor (p. 1514)
- Special Education (SPED), Minor (p. 2259)
- Speech Communication (SPCH), Minor (p. 1866)
- Sports and Coaching Science (SPCS), Minor (p. 2196)
- Sports Management (SPMG), Minor (p. 2820)
- Statistical Data Science (SDSC), Minor (p. 1934)
- Statistics (STAT), Minor (p. 1935)
- Studio Art (STDA), Minor (p. 1101)

T

- The Art and Science of Critical Thinking (ASCT), Minor (p. 1754)
- Theatre (TH), Minor (p. 1967)
- Truth and Reconciliation in the Americas (TRRA), Minor (p. 1064)

W

- Wildlife Ecology (WLEC), Minor (p. 2688)

Z

- Zoology (ZOOL), Minor (p. 1160)

Undergraduate Certificates

Undergraduate Certificates

- Accounting, Systems, and Auditing, UCRT (p. 2866)
- American Sign Language, UCRT (p. 1484)
- Audiology Assistants, UCRT (p. 1220)
- Biblical Studies, UCRT (p. 1177)
- Business Analytics, UCRT (p. 2834)
- Business Essentials, UCRT (p. 2724)
- Business Financial Essentials, UCRT (p. 2725)
- Casino, Gaming and Resort Management, UCRT (p. 2777)
- Communication Sciences and Disorders, UCRT (p. 1225)
- Computational Economics and Data Analysis, UCRT (p. 2734)
- Construction, UCRT (p. 2371)
- Cyber Systems, UCRT (p. 2835)
- Cybersecurity, UCRT (p. 1249)
- Data Systems, UCRT (p. 2839)
- Digital Design in Design and Merchandising, UCRT (p. 1992)
- Digital Studies, UCRT (p. 1178)
- Dyslexia, UCRT (p. 1226)
- Environmental Studies, UCRT (p. 1347)
- Equine Enterprise Management, UCRT (p. 2560)
- eSports, UCRT (p. 1179)
- Ethical Leadership, UCRT (p. 1000)
- Ethics, UCRT (p. 1738)
- Event Management, UCRT (p. 2779)
- Fashion Design, UCRT (p. 1993)
- Fashion Design: Digital Product Creation, UCRT (p. 1994)
- Food Safety, UCRT (p. 2561)
- Geographic Information Systems, CRT (p. 1348)
- Global Beverage Business, UCRT (p. 2780)
- Information Systems Development, UCRT (p. 2841)
- Instructional Design, UCRT (p. 2157)
- International Business, UCRT (p. 2897)
- Learning and Motivation, UCRT (p. 2159)
- Marketing Essentials for Business Success, UCRT (p. 2899)
- Pest Management, UCRT (p. 2612)
- Post-Baccalaureate in Dietetics, UCRT (p. 2069)
- Pre-Health Care Administration, UCRT (p. 1180)
- Pre-Medical Sciences, UCRT (p. 1181)
- Pre-Nursing, UCRT (p. 2097)
- Product Development for Apparel, UCRT (p. 2002)
- Professional Spanish, UCRT (p. 1512)
- Property and Real Estate Management, UCRT (p. 2786)
- Public Health, UCRT (p. 2099)
- Publishing and Editing, UCRT (p. 1318)
- Sales and Service Excellence, UCRT (p. 2912)
- Special Education, UCRT (p. 2260)
- Speech-Language Pathology Assistants, UCRT (p. 1227)
- Sports Marketing and Revenue Generation, UCRT (p. 2913)
- Starting and Growing a New Business, UCRT (p. 2881)
- Supply Chain and Logistics, UCRT (p. 2391)
- Supply Chain Management, UCRT (p. 2851)
- Sustainable Business Management, UCRT (p. 2821)
- Teaching English to Speakers of Other Languages, UCRT (p. 1320)
- The Art and Science of Critical Thinking, UCRT (p. 1755)
- Travel and Tourism Management, UCRT (p. 2790)
- Undergraduate Research, UCRT (p. 1001)

Online Degree Programs
Online Degree Programs

- Aging Studies, MS (https://osuonline.okstate.edu/programs/graduate/gerontology-master-of-science.html)
- Agricultural Education and Leadership, MS (https://osuonline.okstate.edu/programs/graduate/agricultural-education-and-leadership-master-of-science.html)
- Agricultural Leadership, BSAG (https://osuonline.okstate.edu/programs/undergraduate/agricultural-leadership.html)
- Agricultural Leadership, MAG (https://osuonline.okstate.edu/programs/graduate/agricultural-leadership-master-of-agriculture.html)
- Applied Educational Studies: Aviation and Space Education, EdD (https://osuonline.okstate.edu/programs/graduate/aviation-and-space-doctoral-of-education.html)
- Applied Statistics, MS (https://osuonline.okstate.edu/programs/graduate/applied-statistics-master-of-science.html)
- Aviation and Space, MS (https://osuonline.okstate.edu/programs/graduate/aviation-and-space-master-of-science.html)
- Building Level Leadership, GCRT (https://osuonline.okstate.edu/programs/certificates/building-level-leadership.html)
- Business Administration, MBA (https://osuonline.okstate.edu/programs/graduate/business-administration-master-mba.html)
- Business Analytics and Data Science, GCRT (https://osuonline.okstate.edu/programs/certificates/business-analytics-data-science.html)
- Business Analytics and Data Science, MS (https://osuonline.okstate.edu/programs/graduate/business-analytics-master-of-science.html)
- Business Sustainability, GCRT (https://osuonline.okstate.edu/programs/certificates/business-sustainability.html)
- Casino and Gaming Management, GCRT (https://osuonline.okstate.edu/programs/certificates/casino-and-gaming-management.html)
- College Teaching, GCRT (https://osuonline.okstate.edu/programs/certificates/college-teaching.html)
- Computer Science, BS (https://osuonline.okstate.edu/programs/undergraduate/computer-science.html)
- Digital, Housing and Merchandising: Digital Design, MS (https://osuonline.okstate.edu/programs/graduate/digital-design-master-of-science.html)
- Dietetics, MS (https://osuonline.okstate.edu/programs/graduate/dietetics-master-of-science.html)
- Digital Forensics and Incident Response, GCRT (https://osuonline.okstate.edu/programs/certificates/digital-forensics-incident-response.html)
- Early Child Care and Development, BS (https://osuonline.okstate.edu/programs/undergraduate/early-child-care-and-development.html)
- Educational Leadership Studies: Higher Education, MS (https://osuonline.okstate.edu/programs/graduate/educational-leadership-higher-education-master-of-science.html)
- Educational Leadership Studies: School Administration, MS (https://osuonline.okstate.edu/programs/graduate/educational-leadership-studies-school-administration-master-of-science.html)
- Educational Leadership Studies: Workforce and Adult Education, MS (https://osuonline.okstate.edu/programs/graduate/educational-leadership-studies-workforce-adult-education-master-of-science-option.html)
- Educational Psychology: Educational Psychology, MS (https://osuonline.okstate.edu/programs/graduate/educational-psychology-master-of-science.html)
- Educational Technology: Educational Technology, MS (https://osuonline.okstate.edu/programs/graduate/educational-technology-master-of-science.html)
- Educational Technology: School Library Media, MS (https://osuonline.okstate.edu/programs/graduate/educational-technology-school-library-media-master-of-science.html)
- Effective Teaching in Elementary Schools, GCRT (https://osuonline.okstate.edu/programs/certificates/effective-teaching-elementary-schools.html)
- Effective Teaching in Secondary Schools, GCRT (https://osuonline.okstate.edu/programs/certificates/effective-teaching-secondary-schools.html)
- Electrical Engineering, MEN (https://osuonline.okstate.edu/programs/graduate/electrical-engineering-master-of-engineering.html)
- Electrical Engineering, MS (https://osuonline.okstate.edu/programs/graduate/electrical-engineering-master-of-science.html)
- Elementary Education, BS (https://osuonline.okstate.edu/programs/undergraduate/elementary-education.html)
- Elementary Mathematics Specialist, GCRT (https://osuonline.okstate.edu/programs/certificates/elementary-mathematics-specialist.html)
- Engineering and Technology Management, GCRT (https://go.okstate.edu/graduate-academics/programs/certificates/engineering-and-technology-management.html)
- Engineering Technology and Management, MS (https://osuonline.okstate.edu/programs/graduate/engineering-and-technology-management-master-of-science.html)
- Engineering Technology: Fire Safety and Explosion and Protection, MS (https://go.okstate.edu/graduate-academics/programs/masters/engineering-technology-option-in-fire-safety-and-explosion-protection-ms.html)
- Engineering Technology: Mechatronics and Robotics, MS (https://go.okstate.edu/graduate-academics/programs/masters/engineering-technology-option-in-mechatronics-and-robotics-ms.html)
- Entrepreneurship, BSBA (https://osuonline.okstate.edu/programs/undergraduate/business-adminstration-in-entrepreneurship.html)
- Entrepreneurship, GCRT (https://osuonline.okstate.edu/programs/certificates/entrepreneurship.html)
- Family and Community Services, MS (https://osuonline.okstate.edu/programs/graduate/family-and-community-services-master-of-science.html)
- Family and Consumer Sciences Education, MS (https://osuonline.okstate.edu/programs/graduate/family-and-consumer-sciences-education-master-of-science.html)
- Family Financial Planning, GCRT (https://osuonline.okstate.edu/programs/certificates/family-financial-planning.html)
- Family Financial Planning, MS (https://osuonline.okstate.edu/programs/graduate/family-financial-planning-master-of-science.html)
- Finance, BSBA (https://osuonline.okstate.edu/programs/undergraduate/business-administration-finance.html)

- Fire and Emergency Management Administration, MS (https://osuonline.okstate.edu/programs/graduate/fire-emergency-management-administration-master-of-science.html)
- Fire and Emergency Management Administration, PhD (https://osuonline.okstate.edu/programs/graduate/fire-emergency-management-administration-doctoral-of-philosophy.html)
- Fire Protection and Safety Engineering Technology, BSET (https://go.okstate.edu/undergraduate-academics/majors/fire-protection.html)
- Forensic Arson, Explosives, Firearms, Toolmarks Investigation, GCRT (https://osuonline.okstate.edu/programs/certificates/forensic-arson-explosives-firearms-toolmarks-investigation-gcrt.html)
- Forensic Crime Analysis, GCRT (https://osuonline.okstate.edu/programs/certificates/forensic-crime-analysis.html)
- Forensic Investigative Sciences, GCRT (https://osuonline.okstate.edu/programs/certificates/forensic-investigative-sciences-gcrt.html)
- Forensic Psychology, GCRT (https://osuonline.okstate.edu/programs/certificates/forensic-psychology.html)
- Forensic Sciences, DFS (https://osuonline.okstate.edu/programs/graduate/doctor-of-forensic-sciences.html)
- Forensic Sciences, MS (https://osuonline.okstate.edu/programs/graduate/forensic-sciences-master-of-science.html)
- Forensic Threat Assessment and Management, GCRT (https://osuonline.okstate.edu/programs/certificates/forensic-psychology.html)
- General Business, BSBA (https://osuonline.okstate.edu/programs/undergraduate/business-administration-general-business.html)
- General Business, GCRT (https://osuonline.okstate.edu/programs/certificates/general-business.html)
- Global Health, MS (https://osuonline.okstate.edu/programs/graduate/global-health-master-of-science.html)
- Health Analytics, GRCT (https://osuonline.okstate.edu/programs/certificates/health-analytics.html)
- Health Care Administration, BPS (https://osuonline.okstate.edu/programs/undergraduate/heath-care-administration.html)
- Health Care Administration, DHCA (https://medicine.okstate.edu/academics/programs/doctor-in-healthcare-administration.html)
- Health Care Administration, GCRT (https://osuonline.okstate.edu/programs/certificates/health-care-administration-gcrt.html)
- Health Care Administration: Finance, GCRT (https://osuonline.okstate.edu/programs/certificates/hca-finance-gcrt.html)
- Health Care Administration: Global Health, GCRT (https://osuonline.okstate.edu/programs/certificates/hca-global-health-gcrt.html)
- Health Care Administration, MS (https://osuonline.okstate.edu/programs/graduate/health-care-administration-master-of-science.html)
- Health, Leisure and Human Performance: Leisure Studies, PhD (https://osuonline.okstate.edu/programs/graduate/leisure-studies-doctoral-of-philosophy.html)
- Hidden Student Populations, GCRT (https://osuonline.okstate.edu/programs/certificates/hidden-populations.html)
- History, BA (https://osuonline.okstate.edu/programs/undergraduate/history.html)
- Human Resource Management, GCRT (https://osuonline.okstate.edu/programs/certificates/human-resource-management.html)
- I (https://ceat.okstate.edu/ceatonline/)ndustrial Engineering and Management, MS (https://osuonline.okstate.edu/programs/graduate/industrial-engineering-and-management-master-of-science.html)
- Information Assurance, GCRT (https://osuonline.okstate.edu/programs/certificates/information-assurance.html)
- Interdisciplinary Studies BA/BS (https://osuonline.okstate.edu/programs/undergraduate/interdisciplinary-studies-bachelor-of-arts.html)
- Interdisciplinary Studies, MS (https://osuonline.okstate.edu/programs/graduate/interdisciplinary-studies-master-of-science.html)
- International Agriculture, MAG (https://osuonline.okstate.edu/programs/graduate/master-of-international-agriculture-miap.html)
- I (https://go.okstate.edu/graduate-academics/programs/masters/international-agriculture-ms.html)nternational Agriculture, MS (https://osuonline.okstate.edu/programs/graduate/international-agriculture-master-of-science.html)
- K-12 STEM Educator, GCRT (https://osuonline.okstate.edu/programs/certificates/k12-stem-educator.html)
- Learning and Motivation, GCRT (https://osuonline.okstate.edu/programs/certificates/learning-motivation.html)
- Management, BSBA (https://osuonline.okstate.edu/programs/undergraduate/business-administration-in-management.html)
- Management Information Systems, BSBA (https://business.okstate.edu/watson/online.html)
- Management Information Systems, MS (https://osuonline.okstate.edu/programs/graduate/management-information-systems-master-of-science.html)
- Marketing, BSBA (https://osuonline.okstate.edu/programs/undergraduate/business-administration-in-marketing.html)
- Marketing Analytics, GCRT (https://osuonline.okstate.edu/programs/certificates/marketing-analytics.html)
- Master of Business Administration (MBA) and Health Care Administration (HCA) Dual Degree (https://osuonline.okstate.edu/programs/graduate/mba-hca-dual.html)
- Mechanical Engineering Technology, BSET (https://osuonline.okstate.edu/programs/undergraduate/mechanical-engineering-technology.html)
- Non-Profit Management, GCRT (https://osuonline.okstate.edu/programs/certificates/nonprofit-management.html)
- Nursing: RN to BSN, BS (https://osuonline.okstate.edu/programs/undergraduate/rn-to-bsn-nursing.html)
- Online Teaching, GCRT (https://osuonline.okstate.edu/programs/certificates/online-teaching.html)
- Organizational Leadership, BPS (https://osuonline.okstate.edu/programs/undergraduate/organizational-leadership.html)
- Psychology, BS (https://osuonline.okstate.edu/programs/undergraduate/psychology.html)
- Public Health, GCRT (https://osuonline.okstate.edu/programs/certificates/public-health.html)
- Public Health, MPH (https://osuonline.okstate.edu/programs/graduate/public-health-master-of-science.html)
- Public Safety, BPS (https://osuonline.okstate.edu/programs/undergraduate/public-safety.html)

- School Library Certification, GCRT (https://osuonline.okstate.edu/programs/certificates/school-library.html)
- Secondary Education: English, BS (https://osuonline.okstate.edu/programs/undergraduate/secondary-education-english.html)
- Sociology, BA/BS (https://osuonline.okstate.edu/programs/undergraduate/sociology.html)
- Sociology: Criminology and Criminal Justice, BA/BS
- Special Education, GCRT (https://osuonline.okstate.edu/programs/certificates/special-education.html)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (https://osuonline.okstate.edu/programs/graduate/curriculum-and-leadership-master-of-science.html)
- Teaching, Learning and Leadership: Mathematics/Science Education, MS (https://osuonline.okstate.edu/programs/graduate/science-and-mathematics-education-master-of-science.html)
- Teaching, Learning and Leadership: Reading and Literacy, MS (https://osuonline.okstate.edu/programs/graduate/reading-and-literacy-teaching-master-of-science.html)
- Teaching, Learning and Leadership: Special Education, MS (https://osuonline.okstate.edu/programs/graduate/special-education-master-of-science.html)
- University Studies, BUS (https://osuonline.okstate.edu/programs/undergraduate/university-studies-multidisciplinary-studies-bus.html)
- University Studies: Multidisciplinary Studies, BUS (https://osuonline.okstate.edu/programs/undergraduate/university-studies-multidisciplinary-studies-bus.html)
- Workforce and Adult Education, GCRT (https://osuonline.okstate.edu/programs/certificates/workforce-adult-education.html)

Graduate Programs

Graduate Programs

- 3D Fashion Design/Digital Product Creation, GCRT (p. 3051)
- Accounting Systems: Cyber Audit, MS (p. 3137)
- Accounting Systems: Data Analytics, MS (p. 3138)
- Accounting, GCRT (p. 3052)
- Accounting, MS (p. 3139)
- Accounting: Corporate Finance, MS (p. 3140)
- Accounting: Data Analytics & Systems, MS (p. 3141)
- Accounting: Financial Reporting & Auditing, MS (p. 3142)
- Accounting: Research Methods, MS (p. 3143)
- Accounting: Tax, MS (p. 3144)
- Advanced Sports Medicine Concepts, GCRT (p. 3053)
- Aging Studies, GCRT (p. 3054)
- Aging Studies, MS (p. 3145)
- Agricultural Communications, MS (p. 3146)
- Agricultural Economics, MS (p. 3147)
- Agricultural Economics, PhD (p. 2955)
- Agricultural Education and Leadership, MS (p. 3149)
- Agricultural Education, Communications, and Leadership, PhD (p. 2956)
- Animal Science, MS (p. 3150)
- Animal Science, PhD (p. 2957)
- Applied Educational Studies: Aviation and Space Eduation, EdD (p. 2958)
- Applied Statistics, MS (p. 3151)
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- Artificial Intelligence: Health Care Administration, MS (p. 3155)
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- Aviation and Space, MS (p. 3157)
- Aviation/Aerospace Administration, GCRT (p. 3055)
- Big Data Analytics, GCRT (p. 3056)
- Biochemistry and Molecular Biology, MS (p. 3158)
- Biochemistry and Molecular Biology, PhD (p. 2959)
- Bioinformatics, GCRT (p. 3057)
- Biomedical Sciences, MS (p. 3159)
- Biomedical Sciences, PhD (p. 2960)
- Biosystems Engineering, MS (p. 3162)
- Biosystems Engineering, PhD (p. 2962)
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- Building Level Leadership, GCRT (p. 3059)
- Business Administration, DBA (p. 2963)
- Business Administration, MBA (p. 3163)
- Business Administration: Accounting, PhD (p. 2964)
- Business Administration: Entrepreneurship, PhD (p. 2965)
- Business Administration: Executive Research, PhD (p. 2966)
- Business Administration: Finance, PhD (p. 2967)
- Business Administration: Hospitality and Tourism Management, PhD (p. 2968)
- Business Administration: Management Science and Information Systems, PhD (p. 2969)
- Business Administration: Management, PhD (p. 2970)
- Business Administration: Marketing, PhD (p. 2971)
- Business Analytics and Data Science, GCRT (p. 3060)
- Business Analytics and Data Science, MS (p. 3165)
- Business Analytics and Data Science: Advanced Data Science, MS (p. 3166)
- Business Analytics and Data Science: Cybersecurity Analytics, MS (p. 3167)
- Business Analytics and Data Science: Health Analytics, MS (p. 3168)
- Business Analytics and Data Science: Marketing Analytics, MS (p. 3169)
- Business Sustainability and Nonprofit Management, GCRT (p. 3061)
- Business, GCRT (p. 3062)
- Casino and Gaming Management, GCRT (p. 3063)
- Chemical Engineering, MS (p. 3170)
- Chemical Engineering, PhD (p. 2972)
- Chemistry, MS (p. 3171)
- Chemistry, PhD (p. 2973)
- Civil Engineering, MS (p. 3172)
- Civil Engineering, PhD (p. 2974)
- Collaborative Piano, GCRT (p. 3064)
- College Teaching, GCRT (p. 3065)
- Communication Sciences and Disorders, MS (p. 3173)
- Community Health Sciences, PhD (p. 2975)
- Comparative and International Education, GCRT (p. 3066)

- Comparative Biomedical Sciences, MS (p. 3174)
- Comparative Biomedical Sciences, PhD (p. 2976)
- Computer Science, MS (p. 3175)
- Computer Science, PhD (p. 2977)
- Counseling Psychology, MS (p. 3176)
- Counseling Psychology, PhD (p. 2978)
- Counseling: Mental Health Counseling, MS (p. 3177)
- Counseling: School Counseling, MS (p. 3179)
- Crop Science, PhD (p. 2979)
- Curriculum Studies: College Curriculum and Teaching, PhD (p. 2980)
- Curriculum Studies: Curriculum and Leadership, PhD (p. 2981)
- Curriculum Studies: International and Peace Curriculum, PhD (p. 2982)
- Data Science: Engineering, MS (p. 3181)
- Design and Merchandising: Apparel Design and Production, MS (p. 3182)
- Design and Merchandising: Digital Design, MS (p. 3183)
- Design and Merchandising: Interior Design, MS (p. 3184)
- Design and Merchandising: Merchandising, MS (p. 3185)
- Design and Merchandising: Retail Merchandising Leadership, MS (p. 3186)
- Developmental Disabilities, GCRT (p. 3067)
- Dietetics, GCRT (p. 3068)
- Dietetics, MS (p. 3187)
- Digital Design in Design & Merchandising, GCRT (p. 3069)
- Digital Forensics & Incident Response, GCRT (p. 3070)
- District Level Leadership, GCRT (p. 3071)
- Dyslexia, GCRT (p. 3072)
- Economics, MS (p. 3188)
- Economics, PhD (p. 2983)
- Education: Educational Administration, EdS (p. 2984)
- Education: Learning, Design and Technology, PhD (p. 2985)
- Education: Literacies and Language Arts Education, PhD (p. 2986)
- Education: Mathematics Education, PhD (p. 2987)
- Education: Science Education, PhD (p. 2988)
- Education: Social Foundations of Education, PhD (p. 2989)
- Education: Special Education, PhD (p. 2991)
- Education: Workforce and Adult Education, PhD (p. 2992)
- Educational and Psychological Measurement, GCRT (p. 3073)
- Educational Leadership and Policy Studies: Educational Administration, PhD (p. 2993)
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- Educational Leadership Studies: School Administration, MS (p. 3190)
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- Educational Leadership Studies: Workforce and Adult Education, MS (p. 3192)
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- Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD (p. 2996)
- Educational Psychology: School Psychometrics, MS (p. 3195)
- Educational Technology: Educational Technology, MS (p. 3196)
- Educational Technology: School Library Media, MS (p. 3197)
- Effective Teaching in Elementary Schools, GCRT (p. 3074)
- Effective Teaching in Secondary Schools, GCRT (p. 3075)
- Electrical Engineering, MEN (p. 3198)
- Electrical Engineering, MS (p. 3199)
- Electrical Engineering, PhD (p. 2997)
- Elementary Mathematics Specialist, GCRT (p. 3076)
- Energy Business, GCRT (p. 3077)
- Engineering and Technology Management, GCRT (p. 3078)
- Engineering and Technology Management, MS (p. 3200)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 3201)
- Engineering Technology: Mechatronics & Robotics, MS (p. 3202)
- English, MA (p. 3204)
- English, PhD (p. 2998)
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- English: Professional Writing, MA (p. 3206)
- English: Teaching English to Speakers of Other Languages, MA (p. 3208)
- Entomology and Plant Pathology: Entomology, MS (p. 3210)
- Entomology and Plant Pathology: Plant Pathology, MS (p. 3211)
- Entomology, PhD (p. 2999)
- Entrepreneurship, GCRT (p. 3079)
- Entrepreneurship, MS (p. 3212)
- Environmental Engineering, MS (p. 3213)
- Environmental Science with Regulatory Certifications, GCRT (p. 3080)
- Environmental Science, MS (p. 3214)
- Environmental Science, PhD (p. 3000)
- Environmental Science: Environmental Management Professional Science Masters, PSM (p. 3215)
- Facilitating Career Development, GCRT (p. 3081)
- Family and Community Services, MS (p. 3216)
- Family and Consumer Sciences Education, MS (p. 3217)
- Family Financial Planning, GCRT (p. 3082)
- Family Financial Planning, MS (p. 3218)
- Fashion Merchandising, GCRT (p. 3083)
- Finance and Investment Banking, GCRT (p. 3084)
- Fire and Emergency Management Administration, MS (p. 3219)
- Fire and Emergency Management Administration, PhD (p. 3001)
- Food Safety Management, GCRT (p. 3085)
- Food Safety Science, GCRT (p. 3086)
- Food Science, MS (p. 3221)
- Food Science, PhD (p. 3002)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 3087)
- Forensic Crime Analysis, GCRT (p. 3089)
- Forensic Investigation of Impaired Driving, GCRT (p. 3090)
- Forensic Investigative Sciences, GCRT (p. 3091)

- Forensic Psychology, GCRT (p. 3093)
- Forensic Sciences, DFS (p. 3003)
- Forensic Sciences, MS (p. 3222)
- Forensic Sciences, PhD (p. 3005)
- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 3225)
- Forensic Sciences: Forensic Science Administration, MS (p. 3227)
- Forensic Threat Assessment and Management, GCRT (p. 3094)
- Forensic Weapons of Mass Destruction Investigation, GCRT (p. 3095)
- General Agriculture: Agribusiness, MAG (p. 3228)
- General Agriculture: Agricultural Leadership, MAG (p. 3230)
- Geographic Information Systems, GCRT (p. 3096)
- Geography, MS (p. 3231)
- Geography, PhD (p. 3007)
- Geology, MS (p. 3233)
- Geology, PhD (p. 3008)
- Geoscience, MPSM (p. 3235)
- Global Health, MS (p. 3237)
- Global Issues, GCRT (p. 3097)
- Global Studies, MS (p. 3238)
- Graphic Design, MFA (p. 3239)
- Grassland Management, GCRT (p. 3098)
- Health Analytics, GCRT (p. 3099)
- Health and Human Performance, PhD (p. 3009)
- Health and Human Performance: Applied Exercise Science, MS (p. 3240)
- Health and Human Performance: Health Promotion, MS (p. 3241)
- Health and Human Performance: Physical Education, MS (p. 3242)
- Health Care Administration, DHCA (p. 3010)
- Health Care Administration, GCRT (p. 3100)
- Health Care Administration, MS (p. 3243)
- Health Care Administration: Compliance, GCRT (p. 3101)
- Health Care Administration: Finance, GCRT (p. 3102)
- Health Care Administration: Global Health, GCRT (p. 3103)
- Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 3011)
- Health, Leisure and Human Performance: Leisure Studies, PhD (p. 3012)
- Hidden Student Populations, GCRT (p. 3104)
- History, MA (p. 3244)
- History, PhD (p. 3014)
- Horticulture, MS (p. 3245)
- Hospitality and Tourism Analytics, GCRT (p. 3105)
- Hospitality and Tourism Management, MS (p. 3246)
- Human Development and Family Science, PhD (p. 3015)
- Human Development and Family Science: Aging Sciences, MS (p. 3248)
- Human Development and Family Science: Applied Human Services, MS (p. 3249)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 3250)
- Human Development and Family Science: Early Childhood Education, MS (p. 3251)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 3252)
- Human Resource Management, GCRT (p. 3106)
- Human Sciences: Design and Merchandising, PhD (p. 3016)
- Human Sciences: Human Development and Family Science, PhD (p. 3017)
- Industrial Engineering and Management, MS (p. 3254)
- Industrial Engineering and Management, PhD (p. 3018)
- Industrial Engineering and Management: Operations Research and Analytics, MS (p. 3255)
- Industrial Engineering and Management: Supply Chain and Logistics, MS (p. 3256)
- Infant Mental Health, GCRT (p. 3107)
- Information Assurance, GCRT (p. 3108)
- Innovative Leadership, GCRT (p. 3109)
- Integrative Biology, MS (p. 3257)
- Integrative Biology, PhD (p. 3019)
- Integrative Design of Building Envelope, GCRT (p. 3110)
- Interdisciplinary Studies, MS (p. 3258)
- Interdisciplinary Toxicology, GCRT (p. 3111)
- International Agriculture, MAG (p. 3259)
- International Agriculture, MS (p. 3260)
- International Disaster and Emergency Management, GCRT (p. 3112)
- K-12 STEM Educator, GCRT (p. 3113)
- Language, Literacy, and Culture Education, EdS (p. 3020)
- Learning and Motivation, GCRT (p. 3114)
- Learning, Design and Technology, EdD (p. 3021)
- Learning, Design and Technology, PhD (p. 3022)
- Management Information Systems, MS (p. 3262)
- Management Information Systems: Big Data Analytics, MS (p. 3263)
- Management Information Systems: Cybersecurity, MS (p. 3264)
- Management Information Systems: Health Analytics, MS (p. 3265)
- Marketing Analytics, GCRT (p. 3115)
- Mass Communications, MS (p. 3266)
- Materials Science and Engineering, MEN (p. 3268)
- Materials Science and Engineering, MS (p. 3269)
- Materials Science and Engineering, PhD (p. 3023)
- Mathematics, GCRT (p. 3116)
- Mathematics, MS (p. 3272)
- Mathematics, PhD (p. 3025)
- Mechanical and Aerospace Engineering, MEN (p. 3274)
- Mechanical and Aerospace Engineering, MS (p. 3275)
- Mechanical and Aerospace Engineering, PhD (p. 3026)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS (p. 3276)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD (p. 3027)
- Medical Sciences, GCRT (p. 3117)
- Medical Sciences, MS (p. 3277)
- Microbiology, Cell and Molecular Biology, MS (p. 3278)
- Microbiology, Cell and Molecular Biology, PhD (p. 3028)
- Museum and Curatorial Studies, GCRT (p. 3118)
- Music: Applied Music, MM (p. 3279)

- Music: Conducting, MM (p. 3280)
- Music: Multiple Woodwinds, MM (p. 3281)
- Natural Resource Ecology and Management, MS (p. 3282)
- Natural Resource Ecology and Management, PhD (p. 3029)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS (p. 3283)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD (p. 3030)
- Natural Resource Ecology and Management: Forest Resources, MS (p. 3284)
- Natural Resource Ecology and Management: Forest Resources, PhD (p. 3031)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, MS (p. 3285)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD (p. 3032)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, MS (p. 3286)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD (p. 3033)
- Neuroscience, GCRT (p. 3119)
- Non-Profit Management, GCRT (p. 3120)
- Nutritional Sciences, PhD (p. 3034)
- Nutritional Sciences: Dietetics Practice, MS (p. 3287)
- Nutritional Sciences: Dietetics Research, MS (p. 3288)
- Nutritional Sciences: Nutrition, MS (p. 3290)
- Online Teaching, GCRT (p. 3121)
- Peace, Conflict, and Security Studies, MA (p. 3292)
- Petroleum Engineering, MS (p. 3293)
- Petroleum Engineering, PhD (p. 3036)
- Philosophy, MA (p. 3294)
- Photonics, PhD (p. 3037)
- Physician Assistant Studies, MS (p. 3295)
- Physics, MS (p. 3296)
- Physics, PhD (p. 3039)
- Physics: Optics and Photonics, MS (p. 3297)
- Plant and Soil Sciences, MS (p. 3298)
- Plant Biology, MS (p. 3299)
- Plant Biology, PhD (p. 3040)
- Plant Pathology, PhD (p. 3041)
- Politics and Policy Studies, MA (p. 3300)
- Program Evaluation, GCRT (p. 3122)
- Psychology: Clinical, PhD (p. 3042)
- Psychology: Experimental Psychology, PhD (p. 3043)
- Public Health in Rural and Underserved Communities, GCRT (p. 3123)
- Public Health, MPH (p. 3301)
- Public Health: Rural and Underserved Populations, MPH (p. 3302)
- Quantitative Finance, MS (p. 3304)
- Quantum Information Science, GCRT (p. 3124)
- Recreation and Leisure Management, GCRT (p. 3125)
- Recreation Management and Recreational Therapy, MS (p. 3305)
- School Administration, EdD (p. 3044)
- School Library Certification, GCRT (p. 3126)
- School Psychology, EdS (p. 3045)
- School Psychology, PhD (p. 3046)
- Social Foundations of Education, MA (p. 3306)
- Sociology, MS (p. 3307)
- Sociology, PhD (p. 3047)
- Soil Science, PhD (p. 3048)
- Special Education, GCRT (p. 3127)
- Sport Communication, GCRT (p. 3128)
- Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT (p. 3129)
- Statistics, MS (p. 3308)
- Statistics, PhD (p. 3049)
- Substance Abuse Counseling, GCRT (p. 3130)
- Supply Chain and Logistics, GCRT (p. 3131)
- Teaching English to Speakers of Other Languages, GCRT (p. 3132)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 3309)
- Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 3310)
- Teaching, Learning and Leadership: K-12 Education, MS (p. 3311)
- Teaching, Learning and Leadership: Mathematics/Science Education, MS (p. 3313)
- Teaching, Learning and Leadership: Reading and Literacy, MS (p. 3314)
- Teaching, Learning and Leadership: Special Education, MS (p. 3315)
- Teaching, Learning and Leadership: Workforce and Adult Education, MS (p. 3316)
- Theatre, MA (p. 3317)
- Tribal Health Care Administration, GCRT (p. 3133)
- Workforce and Adult Education, GCRT (p. 3134)

Ethical Leadership, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Core Requirements		
Select 3 hours of an introductory course:		3
AGLE 2303	Agricultural Leaders in Society (S)	
HESA 1521 & HESA 1512	President's Leadership Council II and President's Leadership Council I	
UNIV 1133	Introduction to Leadership in Practice	
UNIV 1311	McKnight Scholars Colloquium I	
UNIV 2133	Ethical Leadership Behavior in a Changing Society (S)	
UNIV 2311	McKnight Scholars Colloquium II	
UNIV 3311	McKnight Scholars Experiential Learning	
Pre-Approved Diversity Credits		
Select 3 hours of pre-approved diversity credit or leadership study abroad		3
HESA 3910	Current Issues in Leadership	
OR		
UNIV 3413	International Perspective in Ethical Leadership for McKnight Scholars	
OR		
UNIV 3423	International Perspective in Ethical Leadership for PLC	
OR students may choose 3 credit hours from the following:		
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	
AMST 3503	Television and American Society (DH)	
AMST 3653	The Body in American Culture (DH)	
AMST 3823	U.S. as Business Culture (DH)	
AMST 4553	Gender in America (DH)	
CPSY 4443	Cultural Diversity in Professional Life (D)	
DIVR 2003	Inclusion Leadership (DS)	
DIVR 2213	Minorities in Science and Technology: Contributions Past, Present and Future (DS)	
DIVR 2323	Diversity and Inclusion in 21st Century America (DS)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 2413	Exploring Literature (DH)	
GEOG 3713	Exploring North America and Diversity (DS)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3553	LGBTQ Lives in the United States (D)	
GWST 3713	Gender and Representation (D)	
HIST 2343	Religion in America (DH)	
HIST 3713	Women in the American West (DH)	
HLTH 3113	Health Issues in Diverse Populations (D)	
MC 1143	Media in a Diverse Society (DS)	
MGMT 4213	The Fair Workplace (D)	
MSIS 3931	Diversity Impacts in Information Systems (D)	
PHIL 3623	Philosophy of Race (DH)	
POLS 2313	Social Justice Politics (D)	
POLS 3953	Minorities in the American Political System (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
RT 2443	Contemporary Issues in Diversity (DS)	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 4043	Gender and Work (DS)	
OR students may petition to the Ethical Leadership Committee for approval of additional study abroad courses offered by OSU.		
Pre-Approved Electives		
Select 6 hours of pre-approved electives		6
AGLE 3303	Agricultural Leadership: Theory and Practice	
AGLE 3403	Facilitating Social Change in Agriculture	
AGLE 3803	Global Leadership in Agriculture (G)	
AMST 3333	Crime, Law and American Culture (S)	
BADM 3113	Practical Business and Interpersonal Skills	
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	
HDFS 4473	Policy, Law and Advocacy	
HESA 3013	Leadership Concepts	
HESA 3113	Civic Leadership	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 2603	Total Wellness (S)	
MGMT 3133	Developing Leadership Skills	
MGMT 4013	Current Topics in Management and Leadership	
MGMT 4061	Managing Confrontations	
MGMT 4073	Management and Ethical Leadership	
MKTG 4443	Social Issues in the Marketing Environment (D)	
MSIS 4273	Legal and Ethical Issues in Information Systems	
PHIL 3803	Ethics, Society, and Business (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 3823	Engineering Ethics	
POLS 4693	Gender and Politics	
PSYC 3013	Psychology of Motivation	
SOC 2123	Social Problems (DS)	
OR students may petition to the Ethical Leadership Certificate Commitee for approval of additional elective courses offered by OSU.		
Service Learning (minimum of 1 hour)		
UNIV 4511	Application of Ethical Leadership	1
Capstone Course		
UNIV 4963	Ethical Leadership for the Common Good	3
Total Hours		**16**

Undergraduate Research, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Core Requirements		
Nine hours of undergraduate research.		9
Three hours of thesis preparation.		3
Three hours of undergraduate thesis.		3
Total Hours		**15**

Other Requirements

- Minimum GPA 2.50 with no grade below C.
- Minimum 9 hours in residence at OSU.
- The student's plan of study must be approved by the Associate Dean for Research or designee of the student's college.
- A bachelor's degree from Oklahoma State University is required to be eligible to earn the certificate.

University Studies, BUS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Purpose

Individualization and flexibility are features of the program leading to the degree of Bachelor of University Studies. The program is designed for goal-directed, motivated, and mature students who find that the present degree programs (majors) at the University will not enable them to attain their educational objectives. The Bachelor of University Studies degree program allows a student to use the total resources of the University available to accomplish unique educational objectives. The program may or may not prepare a student for a particular occupation or for entry into a professional school.

Degree Requirements

1. All students who intend to present a program for the University Studies degree should be enrolled in one of the colleges of the University or the Office of University College Advising.
2. The study plan must include no fewer than 40 upper-division semester credit hours which are selected from two or more disciplines and which in their aggregate comprise a rational combination of concepts and skills.
3. The study plan must meet all general education requirements of the University and the college of enrollment.
4. A minimum of 120 semester credit hours shall be required for granting the degree.

Procedure

Students who believe their educational objectives can best be fulfilled through a Bachelor of University Studies degree program will be responsible for complying with the following procedures:

1. Obtain the declaration of major and plan of study forms for the Bachelor of University Studies from the Director of Student Academic Services in the college that will grant the degree, University College Advising, or the Advising Center at OSU-Tulsa. This form will list the General Education requirements for the college.
2. Meet with an advisor to determine the student's educational objectives and the two or three areas of concentration.
3. Obtain approval from a departmental representative (faculty member or advisor) if the area of concentration does not represent a minor or certificate.
4. Submit the completed form to the Office of the Dean in the college of enrollment for approval. The form will be forwarded to the Office of the Provost.
5. Any necessary changes in the approved program should be requested by the student through the student's advisor and dean.
6. Fulfill the approved graduation requirements for the degree and apply for graduation before the final semester of coursework.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

University Studies: Multidisciplinary Studies, BUS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Purpose

The bachelor's degree in multidisciplinary studies is a four-year degree plan for students who find that current University degree programs will not allow them to meet their educational objectives and who wish to tailor course choices to meet individual goals. The program allows students to prepare for professional careers that require extensive knowledge in a broad array of subjects. The multidisciplinary program allows students to focus on two or three areas of study that are selected by the student.

Degree Requirements

1. The student must complete a minimum of 120 semester hours of which at least 40 hours must be upper-division.
2. The major requires two or three areas of concentration. If the student selects two areas of concentration, each area will include at least 27 hours of coursework; for three areas of concentration, each area will include at least 18 hours of coursework. Of the 54 hours of concentration, at least 27 hours must be upper-division. A course may not be used to fulfill the requirements of more than one area of concentration. The remaining coursework, to total at least 120 hours, may be selected from different disciplines.
3. Areas of concentration may include coursework from the requirements for a minor or certificate or a group of related courses approved by a departmental representative (faculty member or advisor). A study plan may use 18 hours of 'major' courses from an AA, AS or AAS degree to fulfill one of three areas of concentration. The other two areas of concentration will include at least 27 hours of upper-division coursework.
4. All students who intend to present a program for multidisciplinary studies must enroll in one of the colleges of the University (select one of the colleges responsible for an area of concentration).
5. The study plan must meet all General Education requirements of the University and the college of enrollment.
6. A multidisciplinary studies faculty advisory committee will oversee program quality and conduct an annual curriculum review.

Area of Concentration

Code	Title	Hours
Concentration 1		27
Concentration 2		27
OR		
Concentration 1		18
Concentration 2		18
Concentration 3		18

Procedure

Students who believe their educational objectives can best be fulfilled through a multidisciplinary studies program will be responsible for complying with the following procedures:

1. Obtain the multidisciplinary studies declaration of major and plan of study forms from the Director of Student Academic Services in the college that will grant the degree, University College Advising or the Advising Center at OSU-Tulsa. The form will list the General Education requirements for the college.
2. Meet with an advisor to determine the student's educational objectives and the two or three areas of concentration.
3. Obtain approval from a departmental representative (faculty member or advisor) if the area of concentration does not represent a minor or certificate.
4. Submit the completed form to the Office of the Dean in the college of enrollment for approval. The form will be forwarded to the Office of the Provost.
5. Any necessary changes in the approved program should be requested by the student through the student's advisor and dean.
6. Fulfill the approved graduation requirements for the degree and apply for graduation before the final semester of coursework.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

UNIVERSITY ACADEMIC REGULATIONS

In addition to these minimal regulations, additional college, department or program requirements may apply. Students are advised to review all steps of their academic progress with their academic advisor.

1. Admission, Academic Standing and Withdrawal

1.1 Admission of Freshmen

Policies and procedures governing the admission of new freshmen are detailed in another section of the Catalog. (See "Undergraduate Admissions (p. 33).")

Assessment/Course Placement

To help insure that students possess the skills necessary to be successful in college, the Oklahoma State Regents for Higher Education require students to obtain a 19 ACT subject area score(s) in science reasoning, mathematics, and English to enroll in course work in the respective subject area(s). Students must score 19 or higher in reading to enroll in courses that require extensive reading. Students scoring below 19 will be required to remediate in the discipline area (UNIV courses with course numbers beginning with 0) or undergo additional testing to determine the level of readiness for college level work. Students must pass developmental courses within the first 24 hours attempted or have all subsequent enrollments restricted to developmental courses until the deficiencies are removed. If a student fails to remediate in a single subject within the 24 hour limit and is in good academic standing, the advisor and dean may recommend to the Provost that the student be allowed to continue to enroll in college level courses in addition to developmental courses.

1.2 Admission of Transfer Students

Policies and procedures governing the admission of transfer students are detailed in another section of the Catalog. (See "Undergraduate Admissions (p. 33).")

1.3 Admission to Certain Professional Programs

Admission to certain programs as approved by the University may be restricted. (See "Undergraduate Admissions (p. 33)" and appropriate college sections in the Catalog.)

1.4 English Proficiency Requirement

As a condition of admission to undergraduate study at OSU, all persons for whom English is a second language shall be required to present evidence of English proficiency. (See "Undergraduate Admissions (p. 33).")

1.5 Satisfactory Academic Progress

Students not under academic suspension from the University are judged to be making satisfactory progress toward their educational objectives. They are eligible to enroll in any of the undergraduate colleges except as may be restricted. (See Academic Regulation 1.3 Admission to Certain Professional Programs.)

1.6 Good Academic Standing and Scholastic Requirements for Continuing Enrollment of a Student Under Academic Probation in an Undergraduate College

Undergraduate students must meet the GPA requirements below to be in good academic standing. Each college, department, or academic program within OSU may require higher standards for admission, retention, or good academic standing.

Overall Hours attempted (total retention/graduation hours attempted)	Minimum Overall Grade-Point Average Required (retention/ graduation GPA)
0 through 30	1.70
31 or more	2.00

Any student not maintaining an overall GPA as indicated above will be placed on probation for one semester. At the end of that semester, he or she must have a current term (semester) GPA of 2.00, not to include physical education activity (leisure) or developmental courses, or meet the minimum standard required above, in order to continue as a student.

First year students (30 or fewer credit hours, as defined by OSRHE policy) with an overall GPA of 1.70 to less than 2.00 will be placed on academic notice. These students should remain in contact with their student academic service offices regarding special academic support services and procedures.

See Academic Regulation 6.4: Grade-Point Average Calculations for a description of overall and current term GPA calculations. These calculations are made three times per year, to coincide with the conclusion of the fall and spring semesters, and the collective summer term. Grades submitted after these calculations are carried forward to the next calculation. (See also Academic Regulation 6.13 Academic Forgiveness.)

A student enrolling on probation should seek help from an academic advisor and a counselor in the University Counseling Services when deciding on an academic load and extracurricular activities.

1.7 Academic Suspension

A student on probation will be suspended when he or she earns a current term (semester) GPA of less than a 2.00 in regularly-graded course work not including physical education activity (leisure) or developmental courses, and the overall grade-point average falls below the following. See Academic Regulation 6.4: Grade-Point Average Calculations for a description of overall and term GPA calculations.

Total Overall Hours attempted (total retention/graduation hours attempted)	Minimum Overall Grade-Point Average Required (retention/ graduation GPA)
0 through 30	1.70
31 or more	2.00

1.8 Reinstatement after Academic Suspension

A student who has been suspended from the University for academic reasons may not be readmitted until one regular semester (fall or spring) has elapsed (unless the faculty appeals committee grants immediate reinstatement). Students who wish to appeal suspension status should inquire about procedures and deadlines from their advisor or the Office of Academic Affairs. Students who were concurrently enrolled in another college or university during the semester may appeal the suspension by submitting an official transcript from the institution. Procedures and

deadlines for appealing may be obtained from the Office of Academic Affairs.

Readmission after one regular semester (fall or spring) has elapsed will be considered on the merits of the individual case. Suspended students can be readmitted only one time. If a student is suspended a second time, he or she must attend another institution and raise the overall (retention/graduation) GPA before readmission to OSU can be considered.

A student with 90 or more hours in a specified degree program who has been academically suspended may enroll, at the discretion of the institution, in up to 15 additional credit hours in a further attempt to achieve the requirements for retention. During these 15 hours of enrollment, the student must achieve a minimum 2.00 current term (semester) GPA at the end of each term or must raise the overall (retention) GPA to 2.00 or above to avoid suspension. This senior suspension exception must be approved by the Director of Student Academic Services or Associate Dean for Instruction in the student's college in the form of a letter to the Registrar. This option can be exercised only once per student.

A student suspended from OSU at the end of the spring semester may continue in the summer semester at OSU if this spring suspension was the student's first suspension. The student must complete a minimum of six hours and must achieve a 2.00 current term (summer semester) GPA, or raise the overall (retention/graduation) GPA to the OSRHE standard, in order to continue in the subsequent fall semester. The student should contact his or her dean's office for additional information and restrictions. (See also Academic Regulation 1.7 Academic Suspension.)

1.9 Readmission

An undergraduate student who has attended OSU but was not enrolled during the immediate past semester (except the summer session) must submit an updated Application for Admission and current application fee. A student who has enrolled in another college or university since last attending OSU must submit a transcript from each school. Admission status will be determined after an evaluation of the previous work has been made.

1.10 Cancelling Enrollment and Withdrawing from the University

Enrollment cancellation occurs when a student drops all classes before classes begin, that is, before the applicable semester or session begins. Student requests to cancel enrollment must be received by the Office of the Registrar before the first day of classes for the term. Enrollment changes, such as cancelling enrollment or withdrawing from the University are the responsibility of the student. Failure to attend classes or nonpayment of tuition and fees does not constitute notice of cancellation.

Withdrawing from the University occurs when a student drops all classes after classes begin, that is, after the applicable semester or session begins. The withdrawal process is initiated with the student's academic advisor or in the student's academic student services office. International students must also consult with International Students and Scholars (ISS) before dropping courses or withdrawing for the semester. Under reporting regulations required by the Student and Exchange Visitor Information System (SEVIS), dropping below full-time can put a student's visa status in jeopardy.

General cancellation and withdrawal periods are provided in the table below. The Academic Calendar provides specific dates for each term. Exceptions to these deadlines may be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdraw Petition and the Petition for a Refund of Tuition and Fees are available on the Registrar website (registrar.okstate.edu (http://registrar.okstate.edu)).

Cancellation/Withdrawal Periods for Full-Semester (16-week) Courses

Semester Time Period	Course Grade	Course-Related Tuition/ Fee Refund
Before term begins (cancellation)	No transcript records	100% refund
First 6 days	No transcript record	100% refund
Day 7-10	No transcript record	Partial refund
Weeks 3-12	"W"	No refund
Weeks 13-14	"W" or "F" as assigned by instructor	No refund
Weeks 15-16	Final grade as assigned by instructor	No refund

Summer courses, intersession courses, and other courses that do not extend through the entire 16-week semester follow proportionate cancellation/withdrawal/refund periods. (*See also OSU Policy 2-0206 Adding and Dropping Classes and Withdrawing from the University*).

2. Student Status

2.1 Classification of Students

Undergraduate classification is determined by the criteria below:

Freshman	fewer than 30 semester credit hours earned
Sophomore	30 to 59 semester credit hours earned
Junior	60 to 89 semester credit hours earned
Senior	90 or more semester credit hours earned

These hours are calculated based on overall (retention) hours earned.

2.2 Full-Time Students

Undergraduate students who are enrolled in 12 or more semester credit hours (six or more for the summer session) are classified as "full-time" students. Graduate students enrolled in nine or more semester credit hours (three or more for the summer session) are classified as "full-time."

Credit hours offered through correspondence study are not counted toward full-time status, unless the course is independent study taken through regular enrollment.

Students engaged in an internship or cooperative education program assignment that requires full-time work on the assignment are regarded as full-time students when they are enrolled in the number of credit hours deemed appropriate for the academic credit they receive for the assignment.

A student holding a 0.50 FTE Graduate Teaching/Research Associate/Assistant (GTA or GRA) appointment who is enrolled in a minimum of six hours during the fall or spring semester and two hours during the summer semester will be certified as a full-time graduate student. Any FTE appointment less than 0.50 requires nine hours of enrollment for the fall or spring semester and three hours of enrollment for the summer

semester in order for the student to be classified as a full-time student. There is no reduction in credit hour requirements in the final semester of enrollment for GTAs or GRAs.

A student enrolled for the final semester of a bachelor's degree program may be classified as a full-time student if enrolled in fewer than 12 hours during that semester.

Doctoral Candidacy Enrollment Requirements

Doctoral students who have completed the requirements for admission to doctoral candidacy and had their "Admission to Doctoral Candidacy" form approved by the Graduate College may enroll for a minimum of at least two credit hours during any term and be considered full-time. This post-candidacy reduced enrollment option applies to all qualified graduate students, including GTAs, GRAs, international students and veterans receiving VA benefits. A student is normally expected to enroll primarily in research hours or in program-approved courses after being admitted to doctoral candidacy.

2.3 Part-Time Students

Students who are enrolled but not meeting the definition of full-time students are classified as "part-time." Undergraduate students are classified as "half-time" if they are enrolled in six hours in a regular semester (or three hours in a summer session). Graduate students are classified as "half-time" if they are enrolled in four hours in a regular semester (or two hours in a summer session).

2.4 Special Students

A student who does not have immediate plans to enter a degree program but wants to take courses may be classified as a "special student." A student on an F-1 visa may not enroll as a special student since he or she must be admitted to a degree program.

3. Undergraduate Degree Requirements

3.1 Date of Matriculation

A student's matriculation date is associated with his or her first term after high school graduation as an admitted student in an accredited institution of higher education. That date will be used in calculating the time limit for the use of a given plan of study.

3.2 Changes in Degree Requirements

A student generally follows the degree requirements associated with his or her matriculation year. Although the curriculum may be revised before a student graduates, students will be held responsible for the degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation. A student has the option of adopting the new degree requirements that have been established since matriculation. The time limit for following a given undergraduate degree program is six years. Time limits for graduate degrees are described under "Academic Regulations" in the "Graduate College (p. 2927)" section of the Catalog.

3.3 The Honors College

(See the "Honors College (p. 2917)" section of the Catalog.)

3.4 General Education Requirements

In keeping with State Regents policy, every OSU undergraduate degree includes a 40-credit-hour general education core that meets the requirements specified in the following table. Degree requirements may exceed the minimum criteria stated below. Courses that carry general education designations are identified in the student information system and the Courses section of the Catalog. Physical education/leisure activity courses may not be used to meet general education requirements.

General Education Area	General Education Designation	Required Minimum (at least 40 credit hours total)	Courses and Notes (See degree plans for details)
The following English, history and government courses are specified on all degree plans as required by OSRHE and OSU policy.			
English Composition	-	6 credit hours	See Academic Regulation 3.5
American History	-	3 credit hours	HIST 1103, HIST 1483 (H), or HIST 1493 (DH)
			When HIST 1483 (H) or HIST 1493 (DH) are used to meet the American History requirement, they cannot also be used for H general education credit hours. HIST 1493 (DH) can be used to meet both the American History requirement and the D requirement below.
American Government	-	3 credit hours	POLS 1113
A minimum of 15 hours of the requirements below should be unspecified on degree plans. Students are encouraged to select a Cowboy Compass Trail leading to a certificate to meet these area requirements.			
Quantitative Thought and Logical Reasoning	Q	3 credit hours of mathematics	MATH or STAT prefix with Q designation
			Previous coursework carrying an A designation will meet Q designation requirements.
Understanding Humanities - Human Heritage and Cultures	H	6 credit hours	Courses with H designation
Exploring Society and Human Behavior	S	3 credit hours	Courses with S designation

Reasoning in the Natural Sciences	N	6 credit hours	Courses with N designation. One course must also carry the L designation.
Laboratory-Based Inquiry	L	1 course	See Reasoning in the Natural Sciences
Diversity	D	3 credit hours	Course with D designation; Courses carrying a D and another general education designation can count toward both this requirement and another area's minimum credit hour requirement.
Global Cultural Competency	G	3 credit hours	Course with G designation; Courses carrying a G and another general education designation can count toward both this requirement and another area's minimum credit hour requirement. Previous coursework carrying an I designation will meet G designation requirements.
Fine Arts	F	None	Courses with the F designation are optional and may be used to meet the 40 credit hour general education total.
Additional General Education Courses	Q, H, S, N, D, G or F	A minimum of 4 additional credit hours to reach total of 40	An additional 4-10 hours of general education are required to meet the total 40 credit hour minimum. If courses used to meet the D and G requirements do not carry other general education designations, only 4 additional hours will be required.

OSU degree plans are designed to allow maximum flexibility within general education areas Q, H, S, N, L, D, and G, so students may select a Cowboy Compass trail leading to a certificate to fulfill these requirements. A minimum of 15 credit hours in these general education areas should be unspecified on a degree plan. An additional 4-10 hours of general education courses are required to meet the total 40 credit hour minimum. If courses used to meet the D and G requirements do not carry other general education designations, only 4 additional hours will be required. Departments/Colleges may request an exception from the Office of Academic Affairs to specify more hours, but such exceptions would generally be approved only in the case of formal written external accreditation or certification requirements.

Substitution of general education courses is allowed when background for the major demands greater depth in an area in which a general education requirement is stated. Only in the Quantitative Thought and Logical Reasoning (Q) and Reasoning in the Natural Sciences (N) areas is substitution of the more advanced lower-division course permitted. Such a substitution requires the recommendation of the student's academic advisor and dean and the approval of the Office of Academic Affairs. (See also Academic Regulation 3.6.)

For students who earn an Associate of Arts or Associate of Science degree from another college or university within the Oklahoma State System, the lower-division general education requirement of the baccalaureate degree shall be the responsibility of the institution awarding the associate degree, providing the general education requirements specified by the State Regents are met. OSU may, with the approval of the State Regents, require that transferring students complete additional general education work for the degree if such additional work is programmed as a part of the upper division requirements of the degree program.

3.5 English Composition Requirement

The University requires a minimum of six semester credit hours in English composition for a baccalaureate degree. The required sequence of courses is ENGL 1113 Composition I and ENGL 1213 Composition II. For those who qualify, ENGL 1123 International Freshman Composition I or ENGL 1313 Critical Analysis and Writing I may be substituted for ENGL 1113 Composition I. Students who earn an "A" or "B" in ENGL 1113 Composition I (or ENGL 1123 International Freshman Composition I or ENGL 1313 Critical Analysis and Writing I) or who earn three semester credit hours in English composition through credit by exam, and who have the consent of their college, may substitute ENGL 3323 Technical Writing for ENGL 1213 Composition II. Students who qualify may substitute ENGL 1223 International Freshman Composition II or ENGL 1413 Critical Analysis and Writing II for ENGL 1213 Composition II. A third course may be required by the student's college to satisfy either an additional composition or oral communication requirement.

3.6 Substitution of Required Courses

A *course substitution* is a specific course that takes the place of a required course on a degree plan because it meets the content and/or spirit of the requirement. Individual colleges have the authority to approve substitutions for required courses on degree plans with two exceptions:

1. Substitutions related to university general education requirements require approval from Academic Affairs (see Academic Regulation

3.4), with the exception of the English composition substitutions described in Academic Regulation 3.5;

2. A lower-division course may not be substituted for an upper-division course to meet degree requirements.

3.7 Waiving of Required Courses

A *course waiver* excuses a student from completing a required course on a degree plan because the student has fulfilled the content requirement of the course by completing other courses or academic experiences. A course waiver does not result in awarding credit hours and consequently does not reduce the number of semester credit hours required for the degree or for any other degree-related requirements. A maximum of six semester credit hours may be waived, and waiver approval is granted only in special circumstances. Required courses in English, American history and American government cannot be waived. Waivers must be approved by the student's advisor, the head of the student's major department and the dean of the college. Waivers involving university general education requirements must in addition be approved by Academic Affairs.

3.8 Changing Majors

Students are advised to select a specific major no later than the end of the sophomore year. Students on probation, or not making satisfactory progress toward a degree, may change majors only with the approval of the dean of the college in which they wish to pursue a different degree. Students should contact the office of Student Academic Services of his or her college concerning procedures and forms to change majors and/or minors.

3.9 Deadline for Completion of Requirements

Degrees are conferred only on specific commencement dates. If a student completes requirements for a degree after a commencement date, the degree will be granted at the next scheduled commencement after the student files a graduation application. (See Academic Regulation 7.8 Graduation Application.) The student may request a certified statement of completion of graduation requirements from the Office of the Registrar.

3.10 Additional Baccalaureate Degrees

A student who receives a baccalaureate degree from OSU may use all applicable courses toward another OSU baccalaureate degree. An additional baccalaureate degree may not be earned in the same major as the first degree, even if the option is different. For example, it is not possible to earn both a BS degree in Sociology with an option in Anthropology and a BS degree in Sociology with an option in Applied Sociology. Completion of requirements for more than one concentration may be noted on the official transcript, but an additional degree will not be awarded. In addition, it is not possible to earn both a BS degree in Mathematics with a second major in Spanish and a BA degree in Spanish. The Bachelor of University Studies cannot be earned as an additional or concurrent OSU baccalaureate degree.

Additional Graduate Degrees

The OSU Graduate College does not allow students to obtain an additional degree of the same award category in the same major as the first degree, even if the options/concentrations are different. For example, it is not possible to earn both an MS degree in Physics with a concentration in Medical Physics and an MS degree in Physics with a concentration in Optics and Photonics. Completion of requirements for more than one concentration may be noted on the official transcript, but an additional degree will not be awarded. Additionally, because of the OSRHE requirement for a coursework common core within a master's degree options, it should not be assumed that obtaining an additional option/concentration within the same degree program and level will be possible. Careful discussions and planning with the Graduate Program Coordinator prior to admission is imperative, if such study is desired.

Multiple Credentials Across Different Award Categories

While this regulation prohibits earning multiple OSU credentials at the same award category with duplication in majors (e.g., two baccalaureate degrees with the same major reflected in both), it is permissible for students to earn multiple OSU credentials with the same major if all credentials with duplication in the major are across different award categories. For example, it is permissible for a student to earn a micro-credential, undergraduate certificate, baccalaureate degree, graduate certificate, master's degree and doctoral degree all with the same major.

3.11 Additional Majors, Minors and Options/ Concentrations

An additional major can be earned by satisfying all degree requirements for the primary major and the major requirements for the additional major plus any college/departmental requirements from the additional major degree plan if deemed appropriate by the college home of the additional major. If the general education requirements are met from one college, they do not need to be met for an additional major if it is in another college. Earning an additional major does not necessarily require hours above the minimum required for the primary major program. Whether additional hours are required generally depends upon the number of electives allowed by the primary program and the extent of overlap between courses in the majors. An additional major cannot duplicate an existing major within a degree program.

Minors are available for many fields of study. A list of current minors and their requirements can be found in the "Minors and Certificates (p. 991)" section of the *Catalog.* Undergraduate minors may not duplicate majors or options/concentrations within a student's curriculum (for example, a student who earns a BA in Art with an Art History concentration may earn a minor in Studio Art but not Art History).

Many degree programs offer a variety of embedded options/ concentrations. Students may declare multiple options/concentrations for a single degree program, but only if the options have been approved to be offered under the parent degree-major program. All components of a student's curriculum, including multiple majors and/or minors, will be noted on the student's transcript while in-progress. Students should contact their college Student Academic Services office for information on adding or removing additional components to/from their curriculum.

3.12 Pre-Finals Week

Final examinations are scheduled at the end of each semester and are preceded by pre-finals week, which begins seven days prior to the first day of finals. During pre-finals week, all normal class activities will continue; however, no assignment, test or examination accounting for more than five percent of the course grade may be given; and no activity or field trip may be scheduled that conflicts with another class. This excludes makeup and laboratory examinations, out-of-class assignments or projects made prior to pre-finals week, and independent study courses. No student or campus organization may hold meetings, banquets, receptions, or may sponsor or participate in any activity, program, or related function that requires student participation. Additional information may be obtained from the student services office of each college or the Office of Academic Affairs.

3.13 Final Exam Overload

In the event that a student has three or more final exams scheduled for a single day, that student is entitled to arrange with the faculty member instructing the highest numbered course (based on the 4-digit course number) to reschedule that examination at a time of mutual convenience during final exam week. (Common final exams are not among those to be rescheduled unless two common exams are scheduled at the same time.) The affected student should submit to the instructor a written request to take the affected exam at a different time at least two weeks prior to the beginning of final exam week. In seeking to provide relief to the student, the instructor may request that the student provide a copy of his or her schedule to confirm the difficulty. The instructor has one week prior to the beginning of final exam week to arrange a mutually convenient time for administration of the final exam, after which the student may take the request to the instructor's department head.

4. Credits

4.1 Residence Credit

Residence credit is awarded for work taken on campus (not through correspondence or credit earned by examination) or at a location officially designated as a residence center by the governing board of the institution (e.g., in-state military bases and OSU courses at OSU-Tulsa.)

4.2 Credit Earned Through Outreach and Correspondence

Outreach Credit

Outreach credit is earned by OSU-admitted students who complete credit courses offered during normal academic terms through OSU academic outreach programs. Outreach courses are also referred to as "electronically delivered" and "traditional off-campus courses and programs" in State Regents' policy. OSU accepts transfer outreach credit from other accredited institutions. Outreach credit is fully applicable toward the satisfaction of requirements for academic degrees and certificates consistent with State Regents' and institutional residence and degree requirements.

Correspondence Credit

Correspondence credit is earned by students who complete year-long correspondence study courses offered through Office of Individual Study. Admission to OSU is not required to earn correspondence credit unless the student intends to apply the credits toward an OSU degree. OSU will accept, toward a degree, a maximum of eight transfer semester credit hours earned through correspondence study from other accredited institutions. Credits earned through correspondence study cannot exceed one-fourth of the credits required for a baccalaureate degree. (See also Academic Regulations 2.2, 4.1, 5.5, and 6.11.)

4.3 Transfer Credit from Other Accredited Four-Year Institutions

Except as excluded in Academic Regulations 4.4 Transfer of Credit from Community Colleges and 7.2 Residence Credit Requirements, credits transferred from accredited senior colleges will apply toward baccalaureate degrees in the same way that they would apply had they been earned in residence at OSU. Students may not use transfer credits to satisfy more than one-half the major course requirements for a department unless they have the approval of the head of that department and the academic dean.

4.4 Transfer Credit from Community Colleges

Credits will be accepted by transfer from a community college to meet lower-division (i.e., 1000- and 2000-level courses) requirements only. A minimum of 60 semester credit hours must be earned at a senior college. Within these guidelines, transfer credits are subject to the individual colleges' degree requirements. See Academic Regulation 4.6 for degree applicability of credit for prior learning received from community college transcripts.

4.5 Transfer Credit from International Colleges and Universities

Credit is accepted based on equivalent standards as outlined in Academic Regulations 4.3 and 4.4. Credit is accepted based on the U.S. letter grade equivalents for the post-secondary grading method used in each country of study.

4.6 Credit for Prior Learning (Credit by Exam)

Credit for prior learning, also referred to as credit by exam, applies to learning acquired from, but not limited to, work and life experiences, non-degree granting institutions, professional training, military training, or open source learning. OSU uses the State Regents' recognized or approved methods to validate prior learning for awarding credit, including the following examinations: Advanced Placement Program (AP), International Baccalaureate Program (IB), College Level Examination Program (CLEP), DANTES Subject Standardized Tests (DSST), and OSU Advanced Standing Examinations.

a. credit earned by examination will be recorded on a student's OSU transcript with a neutral grade of "CBE-P" (Pass) if the student earns the equivalent of a "C" or better on the examination. No grade is recorded if the student fails the exam;

b. credit earned by examination does not count toward the minimum of 30 hours that must be earned in residence (See Academic Regulation 7.2 Residence Credit Requirements);

c. credit earned by examination through institution-independent exams, including AP, CLEP, IB and DSST (see military credit below), applies toward the minimum 60 semester credit hours that must be earned at a senior college, regardless of whether OSU received the exam scores directly from the primary testing source or from transfer transcripts (including high school, community college, and senior college transcripts). Credit earned through Advanced Standing (Departmental) Examinations will only apply toward the minimum 60 credit hours that must be earned at a senior college if the examination credit was awarded at a senior college. Advanced Standing (Departmental) Examinations from community colleges do not apply toward the 60 credit hours. Generic credit by exam (unknown exam type) will only apply toward the minimum 60 credit hours that must be earned at a senior college if the source of the credit is a senior college.

d. a native speaker of a foreign language (one whose high-school level instruction was conducted principally in that language) cannot earn credit toward graduation in lower-division (1000-2000 level) courses in that language (See Academic Regulation 4.9 Foreign Language Credit for Native Speakers);

OSU Advanced Standing Examinations may be offered by academic departments on campus in subject areas not offered through the examination programs listed above. Any currently enrolled student whose travel, employment, extensive readings or educational experience appear

to have given the student proficiency in a subject that is offered at OSU, equivalent to the proficiency ordinarily expected of those students who take the subject in a regular class, may apply for an examination on the subject.

In addition to the regulations listed above, to qualify for an OSU Advanced Standing Examination the student must:

a. be enrolled at OSU;

b. not have taken an Advanced Standing exam over the course within the preceding six months;

c. receive the approval of the head of the department and the associate dean in which the course is offered;

d. present a valid student I.D. at the examination.

Information pertaining to OSU Advanced Standing Examinations may be obtained from the Office of Undergraduate Admissions.

Military Credit

OSU accepts credit as recommended by the American Council on Education (ACE), as published in "The Guide to the Evaluation of Military Experiences in the Armed Services," for selected educational experiences provided by the armed forces. OSU also accepts credit earned through the DSST exams (DANTES Subject Standardized tests) for active veteran and dependent military personnel.

Students who wish to establish credit for military training should request and submit a copy of their JST (Joint Services Transcript) and/or a DSST transcript to the Office of Undergraduate Admissions for evaluation.

Training Programs

OSU awards credit as recommended by the American Council on Education (ACE) in the "National Guide to Educational Credit for Training Programs." Students may present certificates of completion or a transcript from the ACE Registry of Credit Recommendations to the Office of Undergraduate Admissions for evaluation. OSU also awards credit based on the recommendation of the Board of Regents of the University of the State of New York in the NCCRS (National College Credit Recommendation Service, formerly National PONSI).

4.7 Graduate Credit Hours for Undergraduates

An OSU undergraduate senior may take a limited number of courses for graduate credit toward an OSU degree program. Undergraduates admitted to an approved OSU accelerated master's degree program may utilize some of these credits for both a baccalaureate degree and graduate degree as outlined in section 11.15 of the Graduate College section of the University Catalog. All other undergraduates are subject to the graduate credit rules below.

The credits may not be utilized for both a baccalaureate degree and a graduate degree. The courses in question must be approved for graduate credit (as listed in the Course Catalog). The applicability of such graduate courses to a specific graduate program will be determined by the student's graduate advisory committee when the student enrolls in the Graduate College and submits a plan of study for an advanced degree.

To receive credit, a Graduate Credit for Seniors form must be completed by the student to receive graduate credit for courses taken. This form must be submitted to the Graduate College prior to the end of the second week of class instruction of a regular semester, or the first week of a regular summer session. The required form is available on the Graduate College's website or in the Graduate College.

Such credit may be earned only if the following conditions are satisfied at the time of application:

1. Students must have a minimum overall (cumulative graduation/retention) undergraduate GPA of 3.00.
2. The total enrollment must not exceed 18 credit hours for a regular semester or nine credit hours for a summer session.
3. The student must be within 12 semester credit hours of completing requirements for the baccalaureate degree at the beginning of the semester or summer session in which courses are taken for graduate credit.
4. Admission to courses taken for graduate credit must have approval of the course instructor, the director of the undergraduate student services office associated with the student's major, and the dean of the Graduate College.

Not more than 9 semester credit hours taken while a senior may be approved for graduate credit. The student must earn a grade of "B" or higher in those courses for which he or she seeks graduate credit. Credit will be applied to the student's graduate transcript only after the student has been admitted as a graduate student at OSU. Students are cautioned that institutions other than OSU may or may not allow courses taken for graduate credit during the senior year to be transferred into one of their graduate programs.

4.8 Semester Credit Hour

A semester credit hour is equivalent to

a. sixteen 50-minute class sessions (including examinations) conducted under the guidance of a qualified instructor plus 32 hours of preparation time, or
b. sixteen 3-hour laboratory sessions, or
c. sixteen 2-hour laboratory sessions plus 16 hours of preparation time.

These same equivalencies apply to outreach courses, short courses and other learning formats for which academic credit is awarded.

4.9 Foreign Language Credit for Native Speakers

A native speaker of a foreign language cannot enroll in or earn credit toward graduation in lower-division (1000- or 2000-level) courses in that language. A native speaker of a foreign language is defined as a person whose high-school level instruction was conducted principally in that language.

Native speakers may occasionally have valid reasons for establishing credit in a lower-division course. Requests for such consideration should be directed to the dean of the student's college for recommendation to the head of the Department of Foreign Languages and Literatures.

5. Enrollment

5.1 Course Numbering System

All courses are identified by numbers composed of four digits. The first digit indicates the class year in which the subject is ordinarily taken, although enrollment is not exclusive as to student classification (1-freshman, 2-sophomore, 3-junior, 4-senior, 5 and 6-graduate, 7-professional); the second and third digits identify the course within the field; and the last digit indicates the number of semester credit hours the course carries. For example, a course numbered 1123 should be

interpreted as a freshman, or beginning, level course carrying three hours of credit. A course number beginning with zero indicates that the course does not carry University credit. A course number ending in zero indicates that the course carries variable credit.

All courses approved for graduate credit must be numbered 5000 or above. When sections of graduate courses are cross-listed (meet at the same time on the same days in the same classroom with the same instructor) with undergraduate courses, the syllabus for the graduate course must include assignments at an intellectual level commensurate with that of graduate work when compared to that required for undergraduate credit.

5.2 Maximum Semester Credit Hour Load

Undergraduate students are allowed to enroll in the number of credit hours each semester that do not result in academic overload, which is defined as the number of semester-credit-hours 25 percent or more than the number of weeks in the applicable academic term. See the "Graduate College" section of the Catalog for graduate student enrollment information.

Undergraduates desiring to carry an academic overload must have demonstrated readiness to perform on an overload basis, either through superior performance on a college aptitude test or on the basis of superior academic achievement in high school or college, and must complete a Petition for Excessive Hours (available in the Office of the Registrar). The maximum academic overload in any given term is limited to the number of semester-credit-hours which is 50 percent greater than the total number of weeks in the applicable academic term. Exceptions to deserving students may be granted by the Office of Academic Affairs.

In a regular 16-week Fall or Spring semester, the maximum enrollment for undergraduates without special approval is 19 credit hours. Enrollment in 20 to 24 credit hours results in academic overload, which requires a Petition for Excessive Hours. Enrollment in 25 or more credit hours requires both a Petition for Excessive Hours and approval by the Office of Academic Affairs.

Proportionate credit-hour limits apply to summer sessions and intersession periods separately, depending on the length of the session.

5.3 Adding Courses

The sixth class day of a regular semester or the third class day of an eight-week summer session, or the proportionate period for block or short courses is the last day a course may be added (nonrestrictive). With instructor and academic advisor approval, a course may be added during the second week of classes (seventh through tenth class days) of a regular semester or the fourth or fifth class day of an eight-week summer session, or the proportionate period for block or short courses (restrictive).

5.4 Dropping Courses

Dropping refers to the dropping of one or more courses while remaining enrolled in at least one other OSU course for a given semester. Courses may not be dropped without the approval of the student's academic advisor. Enrollment changes, such as dropping courses, are the responsibility of the student. Failure to attend classes or nonpayment of tuition and fees does not constitute dropping a course.

General drop periods are provided in the table below. The Academic Calendar provides specific dates for each term. Exceptions to these deadlines may be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdraw Petition and the Petition for a Refund of Tuition and Fees forms are available on the Registrar website.

Periods for Dropping Full-Semester (16-week) Courses

Semester Time Period	Course Grade	Course-Related Tuition/ Fee Refund
Before term begins	No transcript record	100% refund
First 6 days	No transcript record	100% refund
Days 7-10	No transcript record	Partial refund
Weeks 3-12	"W"	No refund
Weeks 13-14	Assigned grade of "W" or "F" by instructor	No refund
Weeks 15-16	No drop option - Final grade as assigned by instructor	No refund

Summer courses, intersession courses, and other courses that do not extend through the entire 16-week semester follow proportionate drop/refund periods.

A student may not drop any course in which a violation of academic integrity is pending against the student. If the student admits responsibility for a violation meriting a grade of "F" for an assignment or examination, the instructor or Academic Integrity Panel may permit the student to drop the course with a grade of "W." If the student is found not responsible for the violation, he or she may drop the course with either a "W" or "F," (according to the drop grade policy) appearing on the academic record. If the student is found responsible for the violation, the instructor may assign an appropriate sanction, including assigning the grade "F" for the assignment/examination or "F!" for the course. (See *Policy and Procedures Letter* 02-0822).

International students need to consult with International Students and Scholars (ISS) before dropping courses or withdrawing for the semester. Under reporting regulations required by the Student and Exchange Visitor Information System (SEVIS), dropping below full-time can put a student's visa status in jeopardy.

5.5 Concurrent Enrollment

A student who desires to earn credits concurrently at another institution or through correspondence, or DANTES (Defense Activity for Non-traditional Education Support) examinations while enrolled for residence credit at OSU, must secure approval in advance from his or her dean if he or she expects this institution to accept those credits. Armed Forces personnel will be granted 60 days from the date of their first enrollment to establish, through DANTES examinations, advanced standing in subject matter that they mastered while in the Armed Forces.

5.6 Course Prerequisites

Course prerequisites are published in the course section of the University Catalog. When no prerequisites are listed for courses numbered 3000 or 4000, it is understood that the prerequisite is approval of the student's advisor. The prerequisite for courses at the 5000 or 6000 level is graduate standing in addition to any other prerequisites listed. Instructors may waive prerequisites when the student's background justifies this action. Academic advisors may only provide overrides of prerequisite requirements for undergraduate courses, and only if examination of the student's academic record verifies the prerequisites for the undergraduate course have been met. Before the beginning of a term, departments may review class rosters to verify completion of prerequisite requirements and may initiate action to drop students who

do not meet the published requirements. Prior approval of the instructor may be required for enrollment in problems courses, independent study, internships, thesis and dissertation courses, and courses taught in a professional school.

5.7 Class Enrollment Maxima

The maximum number of students permitted to be enrolled in each section of a course is determined by the department head and can be increased or decreased only by the department head or dean. Generally, the maximum number of students permitted in an honors section is 22 students. The Dean of The Honors College may slightly increase or decrease the size of some honors sections. The number of students enrolled in a class may not exceed the fire code capacity of the designated classroom.

5.8 Priority Enrollment

Currently enrolled/continuing students register for summer and fall classes during the latter part of the preceding spring semester, and for spring classes during the latter part of the fall semester. In order to facilitate access to courses required for timely degree completion, a student's priority for enrollment generally follows academic class level with seniors having the highest priority. Some exceptions to this basic priority may be necessary to accommodate bona fide student needs, such as a special priority for physically disabled students. The Office of Academic Affairs determines enrollment priorities, and enrollment schedules and priorities are posted in the enrollment guide located on the Registrar's website at registrar.okstate.edu (http://registrar.okstate.edu).

Full-time staff members may utilize priority enrollment to help ensure they are given an opportunity to identify a section(s) at a time that is least disruptive to work in the office. This benefit of priority enrollment is extended to full-time (100% FTE), regular staff members. Staff members employed at less than one hundred percent are not eligible for priority enrollment.

5.9 Late Enrollment

Students are allowed and encouraged to enroll well before the beginning of a given term (fall, spring, summer). Students whose initial enrollment for the term occurs on or after the first day of the class will be charged a late enrollment fee. A student is permitted to add classes after initial enrollment without a late enrollment fee during the first two weeks of a 16-week semester or through the fifth day of an eight-week summer session or during proportionate periods for block or short courses.

Adding a course or increasing credit hours in a variable-credit class after the restrictive deadline is granted by petition only through the Office of the Registrar, and is not appropriate if enrollment was delayed due to a registration hold or if the semester has ended. Late class section changes approved through this petition process will be processed as if they occurred within the nonrestrictive drop/add period.

See the "Tuition, Fees, and Cost Estimates (p. 78)" section of the *Catalog* for the current late enrollment fee amount.

5.10 Payment of Tuition and Fees

Oklahoma State University (OSU) combines enrollment costs and charges from different areas on campus into one consolidated account. By enrolling/registering in classes, students accept the responsibility of the costs associated with the courses unless dropping/withdrawal occurs by the published dates to receive credit. The Bursar Office generates a monthly electronic billing statement (e-bill) on the last business day of every month detailing charges, credits, and payments that occurred during the month. A billing email notification is sent to the student's OSU email address at the beginning of each month when the billing statement is available to view online. Your OSU email is considered to be the primary source for receiving electronic communications from the University. If someone other than the student should also receive billing notifications, an authorized user may be set up by the student through student portal at http://my.okstate.edu/ by clicking OSU Stillwater/Tulsa Bursar Account under Quick Links. Authorized user login access is located through the bursar website at http://bursar.okstate.edu.

Payment is due no later than the 15th of each month. All tuition and fees (required and optional) and other charges are considered past due if not paid by the 15th of the billing month. Late fees and holds can be avoided by paying by the published deadline. Students may use their O-Key credentials to view online real-time account activity at http://my.okstate.edu/ clicking OSU Stillwater/Tulsa Bursar Account under Quick Links. Failure to view a bill does not relieve the student of his/her financial obligation. It is the student's responsibility to update addresses and phone numbers at the University. Miscellaneous charges (such as books/supplies) may occur throughout the semester, often after financial aid has processed. Students are responsible for paying these subsequent charges as they appear on monthly bursar billing statements.

In efforts to assist students in meeting financial obligations, Oklahoma State University offers a semester based payment plan as an alternative to the traditional lump-sum payment method. This plan provides an opportunity for families (authorized users) and students to pay University billed expenses in regular monthly payments. No finance charges are associated with the payment plan or enrollment holds if payments are made as promised. The Payment Plan is available online each semester. The student can sign-up online at http://my.okstate.edu/ by clicking OSU Stillwater/Tulsa Bursar Account under Quick Links. It is important to designate a parent under the authorized user tab by entering their email address for access to the payment plan enrollment. September 15th is the deadline to enroll in the Fall plan and February 15th is the deadline to enroll for the Spring plan. Summer enrollment is not eligible for the plan. There is a $25 non-refundable application fee due at the time of application each semester. Payment plan participants receive installment payment due notifications in separate emails from the monthly billing notification. The monthly billing notification informs payment plan participants of the total monthly billing statement amount for informational purposes.

Providing a paper check as payment authorizes Oklahoma State University to clear that check electronically. Bank accounts may be debited the same day payment is received. Electronically cleared transactions appear on bank statements even though paper checks are not presented to the financial institution. Any resubmission due to insufficient funds may also occur electronically. All transactions are secure and payment by check constitutes acceptance of these terms. Returned items are assessed a $25 fee and the account holder is responsible for all dishonored payments which have been processed on their account. If a payment is returned to the University by the bank and the payment was made to get enrolled, the Bursar may cancel enrollment and referral to student conduct is a possibility.

Delinquent accounts accrue a penalty at the rate of 1.5% monthly (19.56% APR). Any charges incurred by the University in an effort to collect on delinquent accounts are assessed to and become the responsibility of the account holder. Delinquent account information is disclosed to credit reporting agencies, which could endanger the student's credit rating on a local or national level. Past due accounts are presented to the warrant intercept program (WIP) that captures state income tax

refunds to pay outstanding OSU debt. Oklahoma law has jurisdiction and any disputes arising shall be determined in accordance with the law of this jurisdiction. Accounts must be current before a student can obtain the release of any academic records such as transcript, receive a diploma or enroll for subsequent semesters. Oklahoma State University extends bursar optional charging privileges to students in order to facilitate use of campus based services. Bursar accounts must remain current or charging privileges may be revoked. If the student's federal or institutional financial aid or third-party sponsor payment is either not received by Oklahoma State University or loss of eligibility to retain financial aid for the semester occurs, the student still has the responsibility for paying their bursar account obligations by the set due date. Consent is assumed that communication via all phone numbers, including cell phones, provided to the University as a source of contact could occur. This includes contact from its agents, representatives, and attorneys (including collection agencies) for purposes of collecting any portion of your account financial obligation which is past due. The University reserves the right to request prepayment before allowing registration for future terms based upon previous actions.

5.11 Auditing Courses

A student who does not wish to receive credit in a course may enroll as an auditor, provided space is available and the student obtains approval from the instructor of the course and his or her advisor. (Note: advisor permission is only required for currently enrolled students.) A student who enrolls as an auditor must verify that he or she will not petition to receive credit for the audited course by any method other than that described below under "Audit to Credit." Instructor discretion will determine the auditor's level of class participation, such as taking exams or turning in assignments.

Audited courses do not count in the determination of full-time student status and do not apply toward Veterans Affairs benefits. Laboratory courses, private music lessons, studio art courses, outreach courses, and other courses that require special course fees are not open for audit enrollment.

The audit enrollment form is available on the Office of the Registrar website (registrar.okstate.edu (http://registrar.okstate.edu)). Initial enrollment in a course as an auditor may be completed only between the first and the tenth class day (inclusive) of a 16-week semester and proportionate periods for shorter sessions.

Audit to Credit

The allowable time to change from audit to credit enrollment is between the first and tenth class day (inclusive) of a 16-week semester and proportionate periods for shorter sessions. Students changing enrollment status from audit to credit must have been admitted to OSU.

Credit to Audit

A student who is already enrolled for credit in a course may change the enrollment to audit only if the student officially drops the course (or, if appropriate, withdraws) at the time the student changes to audit. This action is not allowed after the drop/withdraw deadline for the course. The audit action will not remove the original course withdrawal notation from the student's transcript.

Audited courses appear on a student's official transcript with an indication that the course was an audit enrollment. An "AU" appears where the grade would normally appear. The "AU" does not contribute to a student's GPA, and no credit hours are earned for the course.

Audit enrollments follow the same resident and non-resident tuition and fee policies as credit enrollments. Late enrollment fees are waived for audit enrollments. Any individual 65 years or older may audit a class at no charge. The audit tuition and fees are also waived for faculty and staff who have retired from the University under the Oklahoma Teacher Retirement System's "Rule of 80" or "Rule of 90" regardless of age at time of retirement (OSU Policy 2-0108).

5.12 Minimum Class Size

The minimum number of students required in order for a class to meet is as follows: 20 students for lower-division classes, 12 students for upper-division classes, and eight students for graduate-level classes.

6. Grades and Grading

6.1 Official Transcripts

All official transcripts of the student's academic record at OSU are prepared and released by the Office of the Registrar. Copies of transcripts from other institutions cannot be furnished.

6.2 Grade Interpretation

The quality of student performance in all classes is indicated by the following letter grades: "A," "B," "C," "D," "F," "F!," "I," "NP," "P," "S," "U," "W," "R," "SR," or "UR."

Descriptions of the grades are provided below. For graduate students, a grade of "D" or "F" is considered a failing grade. Additional consequences and/or requirements for graduate students receiving "C," "D," and "F" grades also exist in most graduate programs. Irrespective of letter grades received, an overall 3.00 GPA must be maintained. See the "Graduate College (p. 2927)" section of the *Catalog*.

Undergraduate

Grade "A"	Excellent
Grade "B"	Good
Grade "C"	Average
Grade "D"	Below average
Grade "F"	Failure

Graduate

Grade "A"	Excellent
Grade "B"	Good
Grade "C"	Passing
Grade "D"	No Graduate Degree Credit
Grade "F"	No Graduate Degree Credit

Grade "F"! (pronounced F shriek)

The "!" indicates that the student failed the course because of a violation of academic integrity. Students may remove the first "!" (though not the "F") from their transcripts by completing an academic integrity educational program. The "F!" will appear on the transcript for a minimum of one semester. (See also academicintegrity.okstate.edu (http://academicintegrity.okstate.edu).)

"Incomplete" Grade

This grade is given to a student who satisfactorily completes the majority of course work (i.e., material amounting to more than 50% of the course grade as outlined in the course syllabus) and whose work averaged "D" or better, but who has been unavoidably prevented from completing the remaining work of the course. This grade is considered temporary. The instructor should convey to the student the conditions the student must

fulfill in order to complete the course. The instructor will submit a final grade of “I” along with an incomplete final/default grade. The default is the projected grade the student would earn if he or she received a zero for the remaining course work. Grades of "A," and ”SR” are not permitted for the default grade, and an instructor may not require the student to repeat the course to remove the incomplete. The academic transcript will reflect an "I" grade for the course until the final grade is assigned.

The maximum time allowed for a student to complete the course is one calendar year after the end of the semester for which the incomplete grade was awarded. The dean of the student's college (for graduate students, this is the Graduate Dean) may recommend to the Office of the Registrar an adjustment of this period in exceptional circumstances, which must be clearly documented with supporting evidence when deemed appropriate. Instructors have the prerogative to require a shorter period of time to complete the remaining requirements.

It is the responsibility of the student to satisfy the requirements stipulated by the instructor at the time the incomplete grade is assigned; it is the responsibility of the instructor to initiate action to have any new permanent grade entered as soon as possible after the student completes the course or, after one year, partially fulfills the remaining requirements.

Upon completion of any or all of the remaining requirements, or at the end of the one-year period (whichever occurs first), the incomplete grade on the transcript is changed to reflect the final grade for the course. Any course in which none of the remaining requirements are fulfilled will, after one year, have the incomplete grade changed to the default grade. If the student opts to graduate prior to the end of the one year period and if the course is required for graduation, the remaining course requirements must be completed and the final grade assigned by the deadline for course work completion for his or her final graduating semester. If the course is not required for graduation, the standard completion time limits apply. When the temporary incomplete grade is replaced with the incomplete final grade, this action is not considered a violation of the policy that states a grade will not be lowered after graduation.

To ensure compliance with Public Law 117-328: Section 3691A, students on a military leave of absence (MLOA) who elect to remain enrolled in a course after receiving orders for a period of service are eligible to be assigned an incomplete grade regardless of the amount of coursework successfully completed at the time of leave. An incomplete grade assigned to a student on a MLOA will remain on the transcript until the student completes their coursework after their period of service and is not subject to the maximum time limits outlined above.

An incomplete grade that was assigned prior to the Fall 2008 semester and is not changed within the designated time limit remains a permanent "I" grade on the transcript.

Grade "NP."
This grade is given for unsatisfactory work (including that evaluated as "D") in courses on the pass-no pass grading system. Both credit hours and grade-points are ignored in calculating grade-point averages.

Grade "P."
This grade is given for passing work in OSU courses approved for pass-no pass and pass-fail grading systems. Both credit hours and grade points are ignored in calculating grade-point averages.

Grade "S" or "U."
This grade is given for satisfactory (equivalent to a "C" or better) or unsatisfactory work in developmental courses in English, mathematics, reading, and science. On the transcript, developmental courses are designated by “DEV” preceding the grade, such as “DEV-S.” These grades count in attempted hours, but not in earned hours. They are not included in GPA calculations and do not satisfy degree requirements.

Grade "W."
This grade indicates that the student dropped the course.

Grade "R."
This grade is given to a student in a master’s degree creative component course, and other courses as appropriate, when course work is still in progress. It is the responsibility of the instructor to initiate action to have a permanent letter grade entered as soon as possible after the student completes the course work.

Grade "SR" or "UR."
These grades are given for satisfactory and unsatisfactory work, respectively, in thesis or dissertation courses (5000 or 6000). Both credit hours and grade points are ignored in calculating grade point averages, but courses in which a grade of "SR" is earned may be used toward minimum degree requirements.

Mark of “CBE” preceding a grade.
Grades for credit by exam (P or S) are designated on the transcript by “CBE” preceding the grade, such as “CBE-P.” These grades count in attempted and earned hours, but they are not included in GPA calculations.

Mark of “PA” preceding a grade.
Grades for performance/activity (leisure) courses are designated on the transcript by “PA” preceding the grade, such as “PA-B.” These grades count in attempted hours, but not in earned hours, and they are not included in GPA calculations. Limitations exist on applying these courses toward degree requirements.

Mark of "AU"
An "AU" indicates that the student enrolled as an auditor in the course. An "AU" is not a grade and is not used in calculating grade-point averages.

Mark of "N"
An "N" indicates that at the time grades were due in the Office of the Registrar, a final grade was not reported by the student's instructor. An "N" is not a grade and will be changed to the grade earned within a reasonable time. It is not used in calculating grade-point averages.

6.3 Grade-Point System
The following grade-point system is used in calculating the grade-point average.

Grade "A" yields 4 grade points per semester credit hour.

Grade "B" yields 3 grade points per semester credit hour.

Grade "C" yields 2 grade points per semester credit hour.

Grade "D" yields 1 grade point per semester credit hour.

Grade "F" yields 0 grade points per semester credit hour.

6.4 Grade-Point Average Calculations
In calculating grade-point averages, the total number of grade points earned is divided by the total number of hours attempted. The grade of "I," "NP," "P," "S," "U," "W," "R," "SR," "UR," or the mark of "AU" or "N" will not affect the grade-point average. In addition, the following courses are excluded from GPA calculations: developmental courses, physical education

activity (leisure) courses, and courses repeated (with an original grade of “D” or “F”) or reprieved/renewed based on State Regents policy. (See Academic Regulation 6.13 Academic Forgiveness.)

Effective Fall 2016, GPA terminology changed with the transition to a new student information system. Both the new and old terminology are included below to assist with the transition.

Overall (formerly Retention and Graduation) Grade-Point Average

All OSU and transfer courses in which a student has a recorded grade are included in the calculation, excluding the courses described in the introductory paragraph.

Total Institution Grade-Point Average

This GPA is calculated in the same manner as the Overall GPA but includes only OSU (institutional) courses.

Total Transfer Grade-Point Average

This GPA is calculated in the same manner as the Overall GPA but includes only transfer (non-OSU) courses.

Current Term (formerly Semester) Grade-Point Average

This GPA is calculated in the same manner as the Overall GPA but includes only the courses for a single term (spring, summer, or fall). Transcripts for students with enrollment from OSU and another institution during the same term will display two current term GPAs—one for each institution.

[Effective Fall 2016] Cumulative Grade-Point Average

This GPA displays on the transcript after each OSU term and is calculated in the same manner as the Total Institution GPA but is based only on OSU courses for that term and all previous OSU terms.

[Prior to Fall 2016] Cumulative Grade-Point Average

All courses in which a student had a recorded grade were included in the calculation, including physical education activity (leisure) courses and forgiven courses.

6.5 Six Week (Midterm) Progress Reports

Faculty are expected to report six week (midterm) progress grades for all students (regardless of classification) enrolled in 1000- and 2000-level classes and are encouraged to submit six week grades for students in all courses. This will normally occur shortly after the sixth week of classes. Student athletes will have all six week grades reported, not just 1000- and 2000-level. Progress reports are made available on Self Service to students and their academic advisors.

6.6 Pass-No Pass Grading System

An undergraduate student may elect to take no more than four courses or 15 hours (whichever is greater) during his or her academic career with the pass-no pass grading option. The option is restricted to those students who:

a. have earned 28 or more semester credit hours;
b. have at least a 2.50 overall grade-point average;
c. have met all of the prerequisites for enrollment in the course in question;
d. do not need the course in question for meeting any requirements for graduation or certification other than as a general (unrestricted) elective;
e. have approval of the academic advisor.

A student who chooses the pass-no pass option must do so by the last date on which a course may be added. Once the deadline has passed, a student may not change the choice of grading systems. The pass-no pass option is not identified on the official class roll and thus is not known to the instructor. The instructor assigns a normal grade based on the quality of the work performed. The grades of "A," "B" and "C" are recorded on the transcript as "P"; the grades of "D" and "F" are recorded as "NP." "W" and "I" grades are recorded without change. The pass-no pass grade will not affect the grade-point average. Graduate students should refer to the "Graduate College (p. 2927)" section of the *Catalog*.

For spring 2020 only, students were offered the option to elect pass/no-pass grades for spring 2020 courses impacted by the COVID-19 pandemic. Students were given one week to view assigned grades and elect pass/no-pass grading on a course-by-course basis. At the undergraduate level, letter grades of D or better convert to a P (pass) and F grades convert to a NP (no pass) if pass/no-pass grading is selected. At the graduate and professional levels, grades of C or better convert to a P, while grades of D and F convert to an NP. All spring 2020 courses receiving passing (P) grades count toward degree requirements, including requirements where a minimum grade of C is required. This policy exception is in accordance with guidance received from the Oklahoma State Regents for Higher Education.

6.7 Pass-Fail Grading System

Some courses are taught only on a pass-fail basis. Such courses are so designated in the Course Catalog. Students who pass the course are awarded the grade of "P"; those who fail the course are awarded the grade of "F."

Graduate students should refer to the "Graduate College (p. 2927)" section of the Catalog.

6.8 Grade Reports

Reports of the final grades of all students are compiled shortly after the end of each semester and are made available electronically to the students, the students' advisors and the students' deans via Self Service.

6.9 Correcting Grades Reported in Error

The only permitted reasons for changing a final grade are to correct a grade that was reported in error, to remove an incomplete grade, or to change a grade at the direction of the Grade Appeals Board or Academic Integrity Panel. An instructor may not allow students to perform extra work after the end of the course in order to raise their grade. Grade change requests must be submitted in writing to the Office of the Registrar and must have both the department head's and the dean's approvals. A grade may not be lowered after the student has graduated unless the degree has been revoked.

6.10 Grade Appeals

A student may appeal a grade given by an instructor in cases in which he or she believes the grade awarded is inconsistent with announced grading policy. (See "Student Rights and Responsibilities" or contact the Office of Academic Affairs.)

6.11 Honor Rolls

Full-time undergraduate students who complete at least 12 earned OSU credit hours during a fall or spring semester with a current term semester (not overall) grade-point average of 4.00 (i.e., all "A's") are placed on the President's List of Distinguished Students. Grades earned through correspondence may not be included in meeting the minimum enrollment required or grade-point average required for an honor roll. Students who

have completed their courses under the same requirements as outlined above, with a grade-point average of 3.50 or higher and no grade below "C," are placed on the Dean's List of Distinguished Students. (See also Academic Regulation 6.4 Grade-point Average Calculations.

6.12 Violation of Academic Integrity

Oklahoma State University is committed to maintaining the highest level of academic integrity and ethical behavior. It is necessary that all members of the University support and promulgate the values of honesty and responsibility appropriate for an academic community. Not only does such academic integrity and ethical behavior contribute to the status of the University, but it also represents an important component of the educational process. To assure a high level of integrity among students, behaviors that violate academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will not be condoned nor tolerated. Violations may subject the student to disciplinary action including the following: receiving a failing grade on an assignment, examination, or course; receiving an "F!" notation of a violation of academic integrity on the transcript; and suspension from the University. In the event an incident is not resolved at the time grade reports are due to the Registrar (e.g., an alleged violation is discovered during the final examination period), the instructor will assign an incomplete grade until the allegation is resolved. (See also academicintegrity.okstate.edu (http://academicintegrity.okstate.edu).)

6.13 Academic Forgiveness (Undergraduates)

Repeated Courses

A student shall have the prerogative to repeat any course up to four (4) attempts, including the initial attempt, to achieve a higher grade. Only the highest grade of the four attempts will be used in the calculation of the GPA. Any attempt after the first four attempts will be used in the calculation of the GPA. All attempts shall be recorded on the transcript with the earned grade for each course listed in the semester earned along with a notation indicating whether the course is included in or excluded from the GPA.

Academic Reprieve

A currently enrolled OSU student may request an academic reprieve for all courses in one semester or two consecutive semesters if the following conditions are met:

a. at least three years must have elapsed between the period in which the grades being requested reprieved were earned and the reprieve request;
b. the student must have earned an overall GPA of 2.00 or higher with no grade lower than a "C" in all regularly graded (A, B, C, D, F) course work (a minimum of 12 hours) excluding physical education activity or performance courses since the semester requested to be reprieved;
c. the student has not previously been granted an academic reprieve or renewal;
d. there were extenuating circumstances which caused the student to perform poorly during the semester.

Course work with a passing grade included in a reprieved semester may be used to demonstrate competency in the subject matter. However, the course work may not be used to fulfill credit hour degree requirements.

Academic Renewal

A currently enrolled OSU student may request an academic renewal for all courses taken prior to a specified date if the following conditions are met:

a. at least three years must have elapsed between the last semester being renewed and the renewal request;
b. prior to requesting academic renewal, the student must have earned an overall GPA of 2.00 or higher with no grade lower than a "C" in all regularly graded (A, B, C, D, F) course work (a minimum of 12 hours) excluding physical education activity or performance courses;
c. the request will be for all courses completed before the date specified in the request for renewal;
d. the student has not previously been granted an academic reprieve or renewal.

Neither the content nor credit hours of renewed course work may be used to fulfill any degree or graduation requirements.

Requests for Reprieve or Renewal

A student may request an academic reprieve or renewal by submitting an Academic Reprieve or Renewal Petition to Academic Affairs. A committee appointed by Academic Affairs reviews each request and approves or denies a request based on the conditions stated above and the committee's judgment concerning the extenuating circumstances reported by the student. Courses that are reprieved or renewed remain on the student's transcript but are excluded from the overall (retention and graduation) grade-point average and identified as such on the transcript. See also OSU Policy 2-0820, Academic Forgiveness for Undergraduate Students.

7. Graduation

7.1 Graduation Requirements

The responsibility for satisfying all requirements for a degree rests with the student. advisors, faculty members and administrators offer help to the student in meeting this responsibility. Degrees and certificates are conferred after the end of the term upon institutional verification that all requirements have been met. Students who wish to be notified before their credential is conferred must submit a graduation hold form to the Office of the Registrar before the end of their final term.

7.2 Residence Credit Requirements

Students must earn at least 30 semester credit hours at OSU (excluding credit for prior learning and correspondence study). At least 15 of the final 30 hours applied toward the degree or at least fifty percent of the upper-division hours required by OSU in the major field must be satisfactorily completed at OSU. In the Spears School of Business, a minimum of 15 of the last 30 hours applied toward the degree and at least 50 percent of the upper-division hours required in the major field must be satisfactorily completed at OSU.

7.3 Residence Waiver for Certain Premedical and Prelaw Students

Students who complete at least 90 semester credit hours in a recognized premedical science or pre-law preparatory program and are admitted to a professional program leading to the doctoral degree at an accredited professional school, including medicine, osteopathic medicine, chiropractic medicine, veterinary medicine, dentistry, optometry, pharmacy, physical therapy, podiatry, and law, will be awarded the appropriate baccalaureate degree upon the successful completion of 30 semester credit hours in professional school courses applicable to the OSU major. This option is available only to students who have

completed all other degree requirements for the major, have taken at least the last 30 semester credit hours of work at OSU prior to transferring to a professional school and at least fifty percent of the hours required by OSU in the major field are satisfactorily completed at OSU (See Academic Regulation 7.2 Residence Credit Requirements), and have completed at least 60 semester credit hours at a baccalaureate degree granting institution (See Academic Regulation 4.4 Transfer Credit from Community Colleges). Credits from accredited professional schools that are part of baccalaureate degree-granting institutions will satisfy the 60 semester credit hour requirement.

7.4 Minimum Hours for Graduation

Each degree program requires a specific minimum number of semester credit hours for graduation, as indicated in the Catalog. No degree program shall require fewer than 120 semester credit hours for graduation. By OSRHE policy, these 120 hours are exclusive of physical education activity courses (leisure activity courses.) No student shall be permitted to graduate having completed fewer total hours than the requirement specified for that degree. At least 40 hours of upper-division course work shall be required in every baccalaureate degree program. (By OSRHE policy, these 40 hours are exclusive of physical education activity courses.) A minimum of 30 hours is required in the major field. Of these 30 hours, at least 15 hours must be upper division. Hours of "S" or "U" earned in developmental courses may not count toward total hours.

7.5 Grade-Point Average for Graduation

An overall (retention/graduation) grade-point average of 2.00 or higher is required for all courses in which a student has a recorded grade, excluding any courses repeated or reprieved and excluding developmental courses and physical education activity courses. (See Academic Regulation 6.13 Academic Forgiveness.) This is in addition to the 2.00 or higher grade-point average required by the department in the major or minor fields.

7.6 Payment of Graduation Fees

Basic graduation cost is included in the records maintenance fee.

7.7 Requirements for Honors Degrees

The individual colleges have specific requirements for degrees with honors. Students should consult the office of their academic dean for information. (See the "Honors College (p. 2917)" section of the Catalog.)

7.8 Graduation Application

All degree candidates are expected to submit a graduation application (online via Self Service) by November 1 for their name to appear in the fall commencement program, and by April 1 to appear in the spring commencement program (for spring and summer degree candidates). Students who will complete all degree requirements in the summer should file their graduation application for the summer term and are invited to participate in the spring commencement ceremony. Undergraduates must be classified as a senior before they can submit a graduation application, and graduate students must have filed an approved Graduate Clearance Form with the Graduate College before they are eligible to submit a graduation application.

Students whose graduation application has become inactive (due to not meeting degree requirements, changing a component of their degree program, or other factors) are expected to submit a new graduation application via Self Service. Graduation applications do not automatically roll to the next term if degree requirements are not met. Contact the Registrar's Office if assistance is needed.

7.9 Presence at Commencement Exercises

The University will hold Commencement exercises at the close of the fall semester and at the close of the spring semester. Students who plan to meet the graduation requirements at the close of the following summer session are invited and encouraged to participate in the Commencement exercises at the close of the previous spring semester.

The University encourages all candidates for degrees to be present at the Commencement exercises. Attendance is not compulsory.

7.10 Graduation with Distinction

Students who earn an OSU undergraduate degree can also earn a level of distinction based upon the final overall (retention/graduation) grade-point average. (See also Academic Regulation 6.4 Grade-point Average Calculations) The level of distinction added to the diploma and transcript is:

Overall (retention/graduation) grade-point average	Distinction
3.90 to 4.00	Summa cum laude
3.80 to 3.89	Magna cum laude
3.70 to 3.79	Cum laude

This grade-point average calculation is two decimal places only, e.g., 3.69. In actuality, this GPA may be 3.69785 if additional digits were to be added. However, the value used to determine distinction is 3.69, which does not qualify for a level of distinction.

7.11 Professional Education

Professional Education requires a minimum 2.50 GPA for admission to Professional Education, student teaching and graduation. This requirement is consistent with state standards for students who complete professional education programs and seek licensure in the state of Oklahoma.

COLLEGE OF ARTS AND SCIENCES

College Administration

Melinda Cro, PhD—Dean
Andrew Doust, PhD—Associate Dean for Academic Programs
Thad Leffingwell—Interim Associate Dean for Faculty Support and Assistant Dean for Facilities
Camelia Knapp, PhD—Associate Dean for Research
Bobbi Kay Lewis, PhD—Associate Dean for Outreach, Online Learning and Communications
Amy Martindale, EdD—Assistant Dean for Student Academic Services
Mario Borunda, PhD—Associate Dean for Academic/Community Engagement
Laura Ketchum—Development Director
Ann Nelson—Fiscal Operations

Campus Address and Phone

Address: 201 Life Sciences East, Stillwater, OK 74078
Phone: 405.744.5663
Fax: 405.744.1797
Website: http://cas.okstate.edu/

Welcome to the College of Arts & Sciences at Oklahoma State University. From cutting-edge research in the sciences to original displays of creativity in the arts, this college is the core of the university's vibrant academic and cultural community. Our outstanding faculty, staff and fellow students work together to provide an exceptional learning experience for our majors and graduate students. Arts & Sciences degrees focus on developing our students' capabilities in inquiry based learning, critical thinking, problem solving, and written communication. Each degree and associated co-curricular programs prepare our students for the dynamic careers they will soon enter.

The College of Arts and Sciences not only offers a wide variety of programs in teaching, research and outreach, but also supports and reinforces all the other programs of the University. Apart from strong programs in the natural and social sciences and in the liberal and fine arts, the College provides a number of more specialized and interdisciplinary strengths and a variety of professional and pre-professional training.

Scholarships

A number of undergraduate scholarships are available through the College and through the departments and schools within the College. Visit cas.okstate.edu/scholarships (https://cas.okstate.edu/scholarships/) for more information. Arts and Sciences students are also encouraged to apply for the variety of scholarships available through the University's Office of Scholarships and Financial Aid.

Student Success Center

The Arts and Sciences Student Success Center includes resources and support services for students.

Student Academic Services

The academic advising process in Arts and Sciences is coordinated by Student Academic Services. Each undergraduate student is assigned an Academic Advisor, who specializes in the student's degree area. The responsibility for satisfying all requirements for a degree and for ensuring that a degree plan has been submitted rests with the student. Advisors assist students in curriculum planning, and students are encouraged to consult fully with their advisors.

The Student Academic Services staff represents the College in the University's recruiting activities and represents the dean in such matters as petitions for excessive hours, change of major or college, and student withdrawals. Services also include graduation certification, information about college programs and requirements, and referral of A&S students to campus support services.

More information and resources are available at cas.okstate.edu (https://cas.okstate.edu).

Career Services

The primary goal of CAS Career Services is to promote academic excellence to enhance career planning and lifelong success. Services offered include career counseling, job and internship search strategies, and assistance with preparation of resumes and cover letters. Presentations on a wide-range of career-related topics are offered to classes and clubs. More information and resources are available at https://cas.okstate.edu/advising/resources.html.

Outreach

The mission of A&S Outreach is to extend intellectual resources, disseminate knowledge to learners at any time and any place, and provide lifelong learning opportunities. This is accomplished through offering high school and collegiate distance learning courses, international credit courses, and field trip courses. Outreach also coordinates academic conferences, industry workshops and seminars, and cultural outreach opportunities. More information and resources are available at cas.okstate.edu/outreach (https://cas.okstate.edu/outreach/).

Academic Programs

Undergraduate Programs

Requirements for all degree programs and options are detailed in Undergraduate Degree Requirements Sheets available online at registrar.okstate.edu/Degree-Requirements (https://registrar.okstate.edu/Degree-Requirements/).

Graduate Programs

Requirements for master's and doctoral degrees are detailed on the Graduate College website at gradcollege.okstate.edu/programs/listing-by-degree.html (https://gradcollege.okstate.edu/programs/listing-by-degree.html).

Special Academic Programs

The Honors College

The College of Arts and Sciences has offered honors courses since the 1960s and has the greatest number of students and faculty participating in The Honors College at Oklahoma State University. The Honors College provides outstanding students with the opportunity to study, conduct research and interact with faculty and other honors students in a variety of settings designed to assist talented students who seek to make the most of their educational opportunities. Honors sections of many general education courses allow participating students the benefits of small classes taught by experienced members of the faculty, thus combining the extensive resources of a major comprehensive university with personal faculty attention to each student. Special honors seminars

provide coverage of topical issues each semester in formats that encourage the exchange of ideas through discussion and writing. Honors seniors complete the requirements of The Honors College by undertaking a senior honors thesis (or similar creative activity), and honors seniors also may earn honors credit by enrollment in graduate seminars.

For eligibility requirements, visit The Honors College website at honors.okstate.edu (http://honors.okstate.edu).

OSUTeach and Secondary Teacher Certification (grades 6-12)

Students earning a degree in Biological Science, Chemistry, Geology, Mathematics or Physics may participate in the OSUTeach program by selecting a degree option in secondary teacher certification. OSUTeach offers four-year degree, which lead to a B.S. in the selected discipline and teacher certification at the secondary level. OSUTeach is a collaboration between the College of Education and the College of Arts and Sciences. OSUTeach students begin supervised teaching in K-12 classrooms during their first semester in the program and continue these field experiences throughout their coursework, which culminates with apprentice teaching.

Students earning degrees in other majors in the College of Arts and Sciences can also satisfy the requirements for secondary teacher certification by completing certain courses and other requirements. Interested students should see their Arts and Sciences advisor and the OSU Professional Education Unit in the College of Education in room 325 Willard as soon as possible for more information. Students who plan to complete the requirements for certification should apply for admission to professional education immediately in order to incorporate certification requirements into their plan of study. OSU Professional Education recommends a candidate for certification to the State Department of Education when the candidate has successfully completed all requirements. See the Professional Education section of the catalog for more information.

Pre-professional Programs in the Health Professions

Pre-medicine, Pre-dentistry, Pre-optometry, Pre-pharmacy, Pre-chiropractic and Pre-veterinary Medicine.

The pre-professional curricula for physicians, dentists, podiatrists, optometrists, pharmacists, chiropractors and veterinarians have the same basic core because they must prepare students for professional schools whose admission requirements are almost identical. These include a strong foundation in math, chemistry, physics and biology, the disciplines on which major advances in the health field depend. Included also are courses to develop written and spoken communication skills, which are highly important for a good relationship with patients, the public and other professionals.

Beyond this required core, pre-professional students may choose courses and a major as freely as any other students in the College of Arts and Sciences. Medical schools encourage study in the social sciences and humanities that contributes to the understanding of human beings in their entirety—their history and environment, their attitudes and values, their emotions, motivations, interpersonal relationships and cultural heritage. All of these may affect sickness and health.

The specific admission requirements of medical, dental and veterinary schools are available at universitycollege.okstate.edu/preprofessional/prehealth/index.html (https://universitycollege.okstate.edu/preprofessional/prehealth/) and in the Pre-health Advising office. The OSU pre-medical and pre-veterinary course requirements are listed in the "College of Veterinary Medicine" and the "Center for Health Sciences" sections of the Catalog. Students whose goal is admission to medical, dental, podiatry, optometry, pharmacy or veterinary programs should consult with their academic advisor.

Allied Health Professions

The allied health professions for which one can prepare at Oklahoma State University include dental hygiene, nursing, occupational therapy, physical therapy, physician's associate and medical imaging and radiation sciences. The College of Arts and Sciences offers the general education and basic science courses that a student must complete before he or she can be accepted into a professional program. Competitive students may be accepted into these programs after completing 60-90 hours of course work, depending on the health profession. Students whose goal is admission to a professional program in the allied health professions should visit universitycollege.okstate.edu/preprofessional/prehealth/index.html (https://universitycollege.okstate.edu/preprofessional/prehealth/) for information regarding the specific requirements of particular programs and schools and consult with their academic advisor.

Pre-Law Preparation

Law schools have no single preference for a specific undergraduate major. Admission to law school is primarily based on a strong record achieved in a rigorous undergraduate program and a competitive score on the Law School Admission Test (LSAT). Other admission considerations include course of study and difficulty of curriculum; letters of recommendation; work and leadership experiences; and applicant's background and motivation as revealed in an application essay.

Law school admissions officers most frequently recommend students include in their undergraduate programs courses which develop strong reading, writing and critical thinking skills as these verbal and analytical abilities are particularly critical for success in law school.

Students whose goal is admission to law school should visit universitycollege.okstate.edu/preprofessional/prelaw/index.html (https://universitycollege.okstate.edu/preprofessional/prelaw/) and consult with their academic advisor.

Student Organizations and Honor Societies

The Arts & Sciences Student Council serves as the voice of the undergraduate students in the College of Arts & Sciences. As the liaison between the students and the faculty, the Council's primary goal is to foster an atmosphere of learning that places students first. Through student programming, interaction with administration and faculty, and the promotion of the College's student organizations, the Council strives to enrich the experience of Arts & Sciences students. The Council also stresses service to the University and to the surrounding community. A complete listing of Student Organizations is available through the OSU Office of Leadership and Campus Life at https://campuslink.okstate.edu/.

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- Aerospace Studies (p. 1024)
- American Studies (p. 1027)
- Art, Graphic Design and Art History (p. 1065)
- Biology (p. 1102)
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- American Studies, BS (p. 1038)
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- American Studies: Business Essentials, BS (p. 1054)
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- Applied Computer Programming, BS (p. 1242)
- Art: Art History, BA (p. 1084)
- Art: Graphic Design, BFA (p. 1088)
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- Biochemistry, BS (p. 1193)
- Biology, BS (p. 1120)
- Biology: Allied Health, BS (p. 1123)
- Biology: Environmental Biology, BS (p. 1126)
- Biology: Pre-Medical Sciences, BS (p. 1129)
- Biology: Secondary Teacher Certification, BS (p. 1132)
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- Chemistry, BS (p. 1199)
- Chemistry: Pre-Health, BS (p. 1202)
- Chemistry: Secondary Teacher Certification, BS (p. 1205)
- Communication Sciences and Disorders, BS (p. 1222)
- Computer Science, BS (p. 1246)
- Economics, BS (p. 1263)
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- Economics: International Economics Relations, BA (p. 1269)
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- Economics: Pre-Medical, BS (p. 1275)
- Economics: Pre-Veterinary, BS (p. 1278)
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- Environmental Geoscience, BS (p. 1403)
- French, BA (p. 1488)
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- Geography, BA (p. 1350)
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- Geography: Business Essentials, BA (p. 1356)
- Geography: Business Essentials, BS (p. 1359)
- Geography: Pre-Law, BA (p. 1362)
- Geography: Pre-Ministry, BA (p. 1365)
- Geology, BS (p. 1406)
- Geology: Business Essentials, BS (p. 1409)
- Geology: Environmental Geology, BS (p. 1412)
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- Geophysics, BS (p. 1425)
- Geospatial Information Science, BS (p. 1368)
- German, BA (p. 1498)
- German: Business Essentials, BA (p. 1501)
- German: Pre-Law, BA (p. 1504)
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- Global Studies: Business Essentials, BA (p. 1377)
- Global Studies: Pre-Law, BA (p. 1381)
- Global Studies: Pre-Ministry, BA (p. 1384)
- History, BA (p. 1451)
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- History: Pre-Law, BA (p. 1459)
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- Interdisciplinary Studies: Business Essentials, BA (p. 1661)
- Interdisciplinary Studies: Business Essentials, BS (p. 1664)
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- Mathematics, BA (p. 1543)
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- Mathematics: Data Science, BS (p. 1556)
- Mathematics: Pre-Law, BS (p. 1559)
- Mathematics: Pre-Medical Sciences, BS (p. 1562)
- Mathematics: Secondary Teacher Certification, BS (p. 1565)
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- Microbiology/Cell & Molecular Biology, BS (p. 1627)
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- Microbiology/Cell and Molecular Biology: Pre-Medical/Pre-Dental, BS (p. 1633)
- Microbiology/Cell and Molecular Biology: Pre-Veterinary, BS (p. 1637)
- Multimedia Journalism, BA (p. 1585)
- Multimedia Journalism, BS (p. 1588)
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- Music Industry, BS (p. 1704)
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- Music: Jazz Performance, BM (p. 1710)
- Music: Music Composition, BA (p. 1713)
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- Philosophy, BA (p. 1740)
- Philosophy: Ethics and Business Essentials, BA (p. 1743)
- Philosophy: Ethics and Public Policy, BA (p. 1746)
- Philosophy: Pre-Law, BA (p. 1749)
- Philosophy: Pre-Ministry, BA (p. 1751)
- Physics, BS (p. 1768)
- Physics: Applied Physics, BS (p. 1771)
- Physics: Secondary Teacher Certification, BS (p. 1773)
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- Political Science: Pre-Law, BA (p. 1812)
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- Sociology: Criminology and Criminal Justice, BA (p. 1900)
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- Strategic Communication: Advertising and Public Relations, BS (p. 1600)
- Strategic Communication: Social Media, BA (p. 1603)
- Strategic Communication: Social Media, BS (p. 1606)
- Strategic Communication: Sport Communication, BA (p. 1609)
- Strategic Communication: Sport Communication, BS (p. 1612)
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- Zoology, BS (p. 1161)
- Zoology: Ecology and Conservation Biology, BS (p. 1164)
- Zoology: Pre-Medical Sciences, BS (p. 1167)
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- Zoology: Secondary Teacher Certification, BS (p. 1173)

Certificates

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- Biblical Studies, Undergraduate Certificate (p. 1177)
- Communication Sciences and Disorders, Undergraduate Certificate (p. 1225)
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- Applied Computer Programming (APCP), Minor (p. 1241)
- Applied Music (APMU), Minor (p. 1695)
- Applied Statistics (APST), Minor (p. 1933)
- Arabic (ARB), Minor (p. 1485)
- Art History (ARTH), Minor (p. 1083)
- Arts Administration (AADM), Minor (p. 1962)
- Asian Studies (ASTD), Minor (p. 1646)
- Biology (BIO), Minor (p. 1119)
- Campaigns and Lobbying (CAML), Minor (p. 1789)
- Central Asian Studies (CAST), Minor (p. 1647)
- Chemistry (CHEM), Minor (p. 1211)
- Chinese (CHIN), Minor (p. 1486)
- Classical Studies (CLST), Minor (p. 1648)
- Cognitive Science (CSCI), Minor (p. 1838)
- Communication Sciences and Disorders (CDIS), Minor (p. 1221)
- Communication Studies (CMST), Minor (p. 1839)
- Computer Science (CS), Minor (p. 1245)
- Creative Writing (CRWR), Minor (p. 1299)
- Criminology and Criminal Justice (CRCJ), Minor (p. 1885)
- Dance (DANC), Minor (p. 1963)
- Economics (Arts and Sciences) (ECAS), Minor (p. 1262)
- English (ENGL), Minor (p. 1300)
- Ethics (ETHC), Minor (p. 1737)
- European Studies (EUST), Minor (p. 1649)
- French (FREN), Minor (p. 1487)
- Gender, Women's and Sexuality Studies (GWS), Minor (p. 1325)
- Geography (GEOG), Minor (p. 1349)
- Geology (GEOL), Minor (p. 1424)
- Geophysics (GPHY), Minor (p. 1428)
- Geospatial Information Technologies (GSIT), Minor (p. 1371)
- German (GRMN), Minor (p. 1497)
- Global Studies (GLST), Minor (p. 1372)
- Greek (GREK), Minor (p. 1507)
- Hispanic and Latin American Studies (HLAS), Minor (p. 1651)
- History (HIST), Minor (p. 1450)
- Intelligence and Security Analysis (INSA), Minor (p. 1790)
- Japanese (JPN), Minor (p. 1508)
- Jazz (JAZZ), Minor (p. 1696)
- Korean (KRN), Minor (p. 1509)
- Latin (LATN), Minor (p. 1510)
- Law and Legal Studies (LLS), Minor (p. 1791)
- Linguistics (LING), Minor (p. 1316)
- Mathematics (MATH), Minor (p. 1542)
- Microbiology (MICR), Minor (p. 1626)
- Middle East Studies (MES), Minor (p. 1652)
- Military Science (MLSC), Minor (p. 1642)
- Music (MUSI), Minor (p. 1697)
- Music Composition and Theory (MUCT), Minor (p. 1698)
- Neuroscience (NEUR), Minor (p. 1840)
- Oceanography (OCEN), Minor (p. 1429)
- Philosophy (PHIL), Minor (p. 1739)
- Physics (PHYS), Minor (p. 1767)
- Plant Biology (PLB), Minor (p. 1141)
- Political Science (POLS), Minor (p. 1792)
- Pre-Art Therapy (PART), Minor (p. 1100)
- Professional Chinese (PRCH), Minor (p. 1511)
- Professional Writing (PRWR), Minor (p. 1317)
- Psychology (PSYC), Minor (p. 1841)
- Religious Studies (REL), Minor (p. 1872)
- Russian (RUSS), Minor (p. 1513)
- Russian and East European Studies (REES), Minor (p. 1653)
- Screen Studies (SCST), Minor (p. 1319)
- Social Justice (SOJU), Minor (p. 1886)
- Sociology (SOC), Minor (p. 1887)
- Spanish (SPAN), Minor (p. 1514)
- Speech Communication (SPCH), Minor (p. 1866)
- Statistical Data Science (SDSC), Minor (p. 1934)
- Statistics (STAT), Minor (p. 1935)
- Studio Art (STDA), Minor (p. 1101)
- The Art and Science of Critical Thinking (ASCT), Minor (p. 1754)
- Theatre (TH), Minor (p. 1967)
- Truth and Reconciliation in the Americas (TRRA), Minor (p. 1064)
- Zoology (ZOOL), Minor (p. 1160)

Graduate Programs

Twenty-five master's degrees are offered in the College along with 15 doctoral degrees. For details, see the departmental entries that follow or consult the "Graduate College" section in the Catalog.

- Applied Mathematics, MS (p. 1539)
- Applied Statistics, MS (p. 1931)
- Art History, MA (p. 1081)
- Chemistry, MS/PhD (p. 1191)

- Communication Sciences and Disorders, MS (p. 1218)
- Computer Science, MS/PhD (p. 1239)
- Creative Writing, MFA (p. 1297)
- English, MA/PhD (p. 1297)
- Geography, MS/PhD (p. 1345)
- Geology, MS/PhD (p. 1402)
- Graphic Design, MFA (p. 1081)
- History, PhD (p. 1446)
- Integrative Biology, MS/PhD (p. 1117)
- Mass Communication, MS (p. 1584)
- Mathematics, MS/PhD (p. 1539)
- Medical Physics, MS (p. 1765)
- Microbiology/Cell and Molecular Biology, MS/PhD (p. 1625)
- Music: Applied Music, MM (p. 1694)
- Music: Conducting, MM (p. 1694)
- Optics and Photonics, MS (p. 1765)
- Philosophy, MA (p. 1735)
- Physics, MS/PhD (p. 1765)
- Plant Biology, MS (p. 1117)
- Political Science: Public Policy and Administration, MA (p. 1788)
- Professional Writing, MA (p. 1297)
- Psychology, MS (p. 1836)
- Psychology: Clinical, PhD (p. 1836)
- Psychology: Experimental Psychology, PhD (p. 1836)
- Public History, MA (p. 1446)
- Sociology, MS/PhD (p. 1883)
- Statistics, MS/PhD (p. 1931)
- Teaching English as a Second Language (TESL), MA (p. 1297)
- Theatre, MA (p. 1958)

Aerospace Studies

Air Force Reserve Officer Training Corps (AFROTC) is an outstanding opportunity to commission as an Officer in the United States Air Force or United States Space Force. Through this program, you will hone your leadership, time-management and analytical skills, while improving your physical fitness. If you meet military and academic requirements, at the completion of this program, you will commission as a Second Lieutenant in the Air Force or Space Force. From there you will have the opportunity to see the world and lead people in diverse career fields including pilot, logistics, special warfare, engineer, doctor, lawyer, program manager, space or nuclear operations, and many more. No matter your degree or life ambitions, there may be a place for you in the United States Air and Space Forces.

Students complete one credit hour of basic Aerospace Studies each semester during their freshman and sophomore years. These credits consist of one lecture hour and two hours of leadership laboratory per week, providing an understanding of the Department of the Air Force structure, history, procedures, military customs and courtesies, and military uniform wear. Students also attend two hours of fitness training each week in order to maintain physical fitness and meet fitness test requirements. Unless receiving scholarship through AFROTC, students are under no military obligation throughout this time. Students with an AFROTC scholarship receive $300-$350 per month subsistence allowance during their first two years at OSU.

Students are required to meet academic and military retention standards in order to compete for the opportunity to attend Field Training following their sophomore year. Successful completion of Field Training qualifies them to enter the Professional Officer Corps (POC) as an upper classman. Upon entering the POC, students will complete 12 credit hours of Aerospace Studies during their junior and senior years. These credits consist of three lecture hours, two hours of leadership laboratory and two hours of fitness training per week, each semester. The POC provides students with increased leadership opportunities within the cadet wing, preparing them for commissioning as a second lieutenant at the end of their senior year. Additionally, all POC cadets receive $450-$500 per month subsistence allowance.

Furthermore, all students have the opportunity to participate in various cadet wing-sponsored extracurricular activities throughout their AFROTC career. These include visits to active Air Force installations to gain first-hand knowledge of the duties of junior Air Force officers, often including incentive flights in USAF aircraft!

Multiple scholarships are available for competitive applicants; from Air Force ROTC-funded, in#college scholarships, to a four-year, no less than $2,000 per-year OSU Incentive Scholarship for the top students in each class year, and in-state tuition for out-of-state cadets in good standing, with intent to earn their military commission.

AFROTC is available to undergraduate and graduate students with at least three years remaining at OSU. To get started as a freshman during the Fall semester simply register for the AERO 1111 class. During the summer you'll be contacted about orientation events. Orientation typically takes place the Thursday or Friday prior to the start of the Fall semester. If you're not a freshman please contact Detachment 670 for specific information on how to get started and how your path will be slightly different.

For more information or if this program interests you, please contact Detachment 670 at 405#744-7744 or afrotc@okstate.edu.

Courses

AERO 1111 United States Air Force Heritage and Values I
Description: "Heritage and Values," is a survey course designed to introduce students to the Department of the Air Force (DAF) and provides an overview of the basic characteristics, missions, communications and organization of the Air Force and Space Force. Enroll in this course to join Air Force/Space Force ROTC. Joining ROTC does not commit you to military service, but you will receive military training and a path to enter the Air Force or Space Force as a commissioned officer upon graduation. This is a great way to see if military service is right for you.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 1211 United States Air Force Heritage and Values II
Description: Continuation of the knowledge-level instruction of the employment of air and space power, from an institutional, doctrinal, and historical perspective. The students will be introduced to the Air Force way of life and gain knowledge on what it means to be an Airman.
Credit hours: 1
Contact hours: Lecture: 0 Lab: 1 Contact: 2
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 2111 Team and Leadership Fundamentals I
Description: "Team and Leadership Fundamentals" provides a fundamental understanding of both leadership and team building. The lessons and course flow are designed to prepare students for field training and leadership positions in the detachment.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 2211 Team and Leadership Fundamentals II
Description: This course builds on the fundamental understanding of both leadership and team building. Topics include listening, understanding themselves, being a good follower and problem solving efficiently. The students will apply these leadership perspectives when completing team building activities and discussing things like conflict management. Cadets will apply these lessons at Field Training, which follows the AS200 year.
Credit hours: 1
Contact hours: Lecture: 1 Lab: 0 Contact: 1
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3103 Leading People and Effective Communication I
Description: "Leading People and Effective Communication" utilizes student's field training experience to take a more in-depth look at leadership. Special emphasis is placed on enhancing communication skills, and why that is important as a leader. Students have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3203 Leading People and Effective Communication II
Description: "Leading People and Effective Communication" utilizes student's field training experience to take a more in-depth look at leadership. Special emphasis is placed on enhancing communication skills, and why that is important as a leader. Students have an opportunity to try out leadership and management techniques in a supervised environment as juniors and seniors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 3504 Field Training Encampment Program
Prerequisites: Consent of professor of aerospace studies.
Description: Practical training on an Air Force base. Junior officer training, familiarization training in most functional aspects of a typical Air Force base. Includes career orientation, small arms firing, flight orientation rides, and survival training.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Aerospace Studies

AERO 4103 National Security, Leadership Responsibilities and Commissioning Preparation I
Description: "National Security and Preparation for Active-Duty" is designed for college seniors and provides them the foundation to understand their role as military officers and how they are directly tied to our National Security. It is an overview of the complex social and political issues facing the military profession and requires a measure of sophistication commensurate with the senior college level.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 4203 National Security, Leadership Responsibilities and Commissioning Preparation II
Description: Students are instructed on the responsibility, authority, and functions on an Air Force commander and selected provisions of the military justice system. The final semester of the AS400 course is designed to prepare cadets for life as a second lieutenant. "National Security and Preparation for Active-Duty" is designed for college seniors and provides them the foundation to understand their role as military officers and how they are directly tied to our National Security.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Aerospace Studies

AERO 4402 Summer Professional Development Training Program
Prerequisites: Consent of professor of aerospace studies.
Description: Students spend from two to three weeks on an Air Force base working in their intended specialty under supervision of experienced officer. Leadership and management principles applied to day-to-day experiences.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Aerospace Studies

Minors

- Aerospace Studies (AERO), Minor (p. 1026)

Faculty

Lieutenant Colonel Michael J. Cheatham—Commander, Professor and Department Head
Assistant Professors: Major Morgan Dolan; Captain Michael Vander Sys; Captain Jason Nadle
Staff: Mendi Cronister; Technical Sergeant Ephraim Davis; Staff Sergeant Payton Andersen

Aerospace Studies (AERO), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Minor Requirements		
16 hours AERO. 16 hours must be upper-division		16

Choose from AERO (p. 1024) courses.

Other Requirements

- GPA of 2.5 with no grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

American Studies

American Studies examines the history, culture, and society of the United States from a multidisciplinary, multicultural, and transnational perspective. Courses investigate the diverse peoples and ideas that have shaped the nation using an eclectic array of tools—from sociology and political science to history, literature, cultural and media studies. Our curriculum combines structure with latitude in course selection, enabling students to tailor their coursework to fit their personal interests and career goals.

Students may complete a Bachelor of Arts (BA) or a Bachelor of Sciences (BS) in American Studies, either with or without a Pre-Law emphasis. Degrees in American Studies require 48 hours of coursework in the field, including two required American Studies courses (6 credit hours), plus foundational courses in American literary and cultural studies (6 credit hours), American history (6 credit hours) and related humanities and social science courses (30 credit hours).

Students also have two minor options.

American Studies involves 3 hours in a required American Studies class (AMST 3223 Theories and Methods of American Studies), 9 hours of additional upper-division AMST-prefix courses, and 6 hours drawn from a list of upper-division courses with a focus relevant to the field of American Studies (18 hours total).

Truth and Reconciliation in the Americas involves one required course (AMST 3373 Comparative Truth and Reconciliation), 3 hours of internship (AMST 4990), and 9 hours drawn from a list of upper-division courses with a focus relevant to the topic of Truth and Reconciliation (15 hours total).

American Studies provides students with a well-rounded liberal arts education and the critical thinking and communication skills desired by today's employers. Our students learn to conduct research, analyze information, speak clearly, write well, and share their knowledge in multiple media formats. Graduates have pursued successful careers in a variety of fields, including education, social work, journalism, media production, marketing, non-profit management, business, and the law. With its small class sizes and emphasis on analytical writing, American Studies is also the perfect preparation for the pursuit of advanced degrees in Literature, History, and the Law, among other areas. Students interested in applying to law school should consider the Pre-Law option in American Studies.

Courses

AMST 2103 Introduction to American Studies (DH)
Description: Introduction, via topical case studies, to some of the major themes, methods and materials used in the interdisciplinary study of American culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 2423 American Popular Culture (H)
Description: History of American popular culture and its role in shaping social behaviors, beliefs, and relations, especially as regards issues of race, class, gender, sexuality and social power. Previously offered as AMST 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2473 American Imperial Culture
Description: This course is designed to be a broad survey of American Imperial culture, and responses to it, with a focus on the period from 1890 to 1960. Same course as HIST 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 2513 Plantation to Plate: Sugar, Bananas, and Coffee in America (H)
Description: Considers the historical impact that three food commodities - bananas, sugar, and coffee - have had on producing and consuming societies in Latin American and the United States. Analyzes the way food influenced the formation of racial and gender identities and examines different moments when these commodities influenced foreign policy and politics. Same course as HIST 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2523 Dust Bowl (H)
Description: Examination of the Dust Bowl as: an ecological, economic, and human tragedy; cultural representations in film, literature, art, photography, and music; and a comparative example to study modern issues of ecology, water rights, and environmental justice in the southern plains and around the world. Same course as HIST 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 2683 Introduction to Digital Humanities (H)
Description: Introduction to issues and tools involved in digital knowledge production. Students will create hands-on projects using readily available digital tools. Basic familiarity with computers and word processing will be helpful, but no expertise is needed. Previously offered as AMST 3683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3103 The History and Future of Work (H)
Description: What will work be like in the future? This course explores recent developments in work and the workplace. It draws on an array of. sources such as scholarship, journalism, memoirs, popular films, TV shows, and writings on the effects of technology on the labor market, workplace culture, and identity. Through these sources, the course will provide you with a roadmap to the future of work as well as a rich lens into ideas, cultural values, experience, and aesthetics relating to work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3113 Science, Literature, and Culture (H)
Description: This course provides students with opportunities for critical reading, thinking, discussion, and writing about the physical and life sciences, their history, and the cultural roles they play, especially in relation to literature. This course is structured as a general survey of the social and cultural study of science, examining major works in the history, philosophy, and sociology of science in conjunction with major works of English-language literature that engage directly with the sciences. Same course as ENGL 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3223 Theories and Methods of American Studies
Description: In-depth introduction to the history, theories and methods of analysis used in American Studies scholarship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 3253 Globalization and American Culture (H)
Description: Transmission, reception, and influence of American culture in one or more of the following: Europe, Asia, Latin America, the Middle East. The cultural history of globalization and American culture. Same course as HIST 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3303 Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
Description: Examines Latin American migration to the United States through a case study approach. Considers US foreign policy, questions of labor and economic motivations, political violence and persecution, changes in immigration law, environmental issues, histories of the process of migration, and the formation of new identities and transnational communities and activism in the United States. Same course as HIST 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3313 Science, Technology and American Culture (H)
Description: American science and technology as systems of cultural representation, as communities of cultural practices, as mutually determined by other forms of cultural representation such as religion, social thought, art, architecture, literature, and music.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3333 Crime, Law and American Culture (S)
Description: Study of crime, law and the legal system from a cultural perspective. Examine how race, gender, and social class play different roles in issues related to crime, law and the legal system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

AMST 3373 Comparative Truth and Reconciliation in the Americas (D)
Description: Comparative study of truth and reconciliation in Oklahoma and beyond. Explores theories and practices of reconciliation in multicultural contexts. Emphasis on the relationship between past injustices and contemporary social problems. Possible topics might include the Tulsa Race Massacre, Native American boarding schools, and the internment or Japanese Americans in World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMST 3413 Science Fiction (H)
Description: This course will survey the development of science fiction literature as a genre, focusing on major figures and important topics from its beginnings to the contemporary scene. In examining the evolution of science fiction storytelling, we will also investigate how science fiction both reflects and influences broader historical and cultural changes in the 19th, 20th and 21st centuries. Same course as ENGL 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3473 Race, Gender, and Ethnicity in American Film (D)
Description: A survey of race, gender, and ethnicity as they have been represented in American films. Same course as ENGL 3473.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

AMST 3503 Television and American Society (DH)
Description: Examination of television within the social and cultural context of the US. Looks at the aesthetic and industrial practices that shape representation on TV and the effects of those practices, particularly for socially disempowered groups. Same course as ENGL 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3513 Film And American Society (H)
Description: Examination of the US film in its social, political, economic, and cultural contexts. Topics may include the history of US film production, distribution and consumption; Hollywood film genres; independent cinema; the star system; and/or representations of historical events, political issues, or social groups in US film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3550 The Arts and American Society
Description: Interdisciplinary study of major figures, trends, themes, periods, and modes of representation in American thought and cultural expression. Emphasis on the relationship between the arts and social, political, and historical context. Examples include Realism, American Modernism, Regionalism, American Postmodernism, the City and the Country, the Other, Nationalism, Time, and Space. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 3653 The Body in American Culture (DH)
Description: The body and its impact on American culture examined through a survey of diverse cultural productions and social practices. Examine the intersections of ideas of embodiment with discourse of race, class, gender, sexuality, disability, and nationalism. Same course as HIST 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3673 History Of American Art (DH)
Description: Visual arts in America from the Colonial period to present. Major styles, ideas and uses of material in architecture, painting, sculpture and design. Same course as ART 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3723 Cultural History of American Sports (DH)
Description: Examines the role of sports in American cultural history; analyzes issues of class, ethnicity, gender, nationalism and race; interprets the importance of athletic heroes, fans, performance, and rituals; evaluates amateur, collegiate, Olympic, and professional institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3753 African American Arts and Culture (DH)
Description: An exploration of the history, practice, and significance of African American arts and culture. Topics might include black visual, literacy, filmic, musical, and street arts, artists, and movements. Approaches may be comparative or transnational. Same course as AFAM 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3803 War In American Culture (H)
Description: Study of war and its impact on American culture through an examination of diverse cultural productions and social practices. Emphasis on the circulation of common (and contested) representations of war within American visual, literary, and memorial culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3813 Readings in the American Experience (DH)
Description: Life in the New World from the colonial to the postmodern era using a multiplicity of interdisciplinary texts that demonstrate the emergence and ongoing evolution of distinctive American identities. Same course as ENGL 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3823 U.S. as Business Culture (DH)
Description: Examines American business in relation to political, social and cultural phenomena, emphasizing the implications of business for race, class, gender and nation. Themes considered may include business literature, advertising, film, documentary, and other forms of popular and visual culture. The course examines changes in business and business culture over time, and offers students opportunities to synthesize sources that are not usually considered together.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3843 War and Memory in America (H)
Description: Examines the ways in which Americans have remembered and commemorated war from the American Revolution to the Global War on Terror. Topics include the creation and perpetuation of memory from both soldiers and civilians, the portrayal of war in popular culture, and the challenges of commemorating and memorializing America's militant past. Same course as HIST 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 3863 Disability in America (DH)
Description: Examines the history of disability in American culture. Considers evolving ideas about disability and the status of disabled people in American society. Topics include disability and the law; eugenics; the disability rights movement; representations of disability in popular culture; and intersecting ideas about disability, race, gender, and class. Same course as HIST 3863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3950 Special Topics in American Studies (DH)
Description: Special topics in American culture and society with an emphasis on race, class, gender, sexuality and other forms of diversity. Topics will vary, but all courses will emphasize both historical and contemporary examples and include analytical research and writing. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. 3 credit course, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 3980 Inquiry in American Studies
Description: For students interested in pursuing a research or reading project. Open to honors students in American Studies and to others by permission of the program head. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4103 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital cases and how the criminal justice responds to these issues. Same course as HIST 4203 and SOC 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

AMST 4453 Black Geographies & Memorialization in the Landscape (DH)
Prerequisites: Junior or senior standing or consent of instructor.
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. Same course as AFAM 4453 and GEOG 4453. May not be used for degree credit with GEOG 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 4553 Gender in America (DH)
Description: Cultural, societal and political reflections of American men and women from the colonial era to the present. Examination of the women's movements and their opponents. Exploration of changing notions of masculinity and femininity. Same course as HIST 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

AMST 4593 America in International Perspective (H)
Prerequisites: HIST 1103 or lower-division survey course in U.S. History, any period.
Description: A transnational interpretation of American history from the colonial era to the present day. Uses a variety of interdisciplinary sources to place the history of the United States within a comparative, global framework. Same course as HIST 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

AMST 4910 American Period Seminar
Description: In-depth study of a particular period or era in American historical experience. Examples include The Ragtime Era, The Jazz Age, The Great Depression, The Postwar Era, The Civil Rights Movement, and Post Modern America. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4973 Senior Seminar in American Studies
Prerequisites: AMST 3223.
Description: Writing of senior thesis based on original research and its analysis and evaluation or completion of independent project based on practical community experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

AMST 4990 Internship
Description: An internship opportunity which combines independent study and practical fieldwork experience focusing on a particular problem or topic related to America culture and experience. (Examples: Internship in Archival Fieldwork, Material Culture Fieldwork, Museum Management, Sound Recordings and Native American Heritage Site). Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

Undergraduate Programs

- American Studies, BA (p. 1034)
- American Studies, BS (p. 1038)
- American Studies: American Indian Studies, BA (p. 1042)
- American Studies: American Indian Studies, BS (p. 1046)
- American Studies: Business Essentials, BA (p. 1050)
- American Studies: Business Essentials, BS (p. 1054)
- American Studies: Pre-Law, BA (p. 1058)
- American Studies: Pre-Law, BS (p. 1061)

Minors

- American Studies (AMST), Minor (p. 1033)
- Truth and Reconciliation in the Americas (TRRA), Minor (p. 1064)

Faculty

John Kinder, PhD (History)—Director and Associate Professor

CORE FACULTY

Professor: Stacy Takacs, PhD (English); William Decker, PhD (English); Bin Liang, PhD (Sociology)
Associate Professor: John Kinder, PhD (History); Louise Siddons, PhD (Art History); Lindsey Smith, PhD (English)
Teaching Assistant Professor: David Gray, PhD (History/OSU Tulsa); Reanae McNeal, PhD (Interdisciplinary Programs)

AFFILIATE FACULTY

Regents Professor: Dennis Preston, PhD (English)
Professor: Richard Frohock, PhD (English); Lisa Lewis, PhD (English); Rebekah Herrick, PhD (Political Science); Ken Kiser, PhD (Sociology); Jean Van Delinder, PhD (Sociology)
Associate Professor: Jeff Menne, PhD (English); Rebecca Sheehan, PhD (Geography); Danny Adkison, PhD (Political Science)
Assistant Professor: Andrew Belton, PhD (English); Lisa Hollenbach, PhD (English); Laura Arata, PhD (History); Richard Boles, PhD (History); Holly Karibo, PhD (History); Sarah Foss, PhD (History); Brandy Wells, PhD (History); Douglas Miller, PhD (History)
Teaching Assistant Professor: Jen Murray, PhD (History)

American Studies (AMST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 Life Sciences East (S), 405-744-5658, anthony.valentine@okstate.edu
In Tulsa, contact: **Angel Ray**, 918-594-8271, bangel@okstate.edu

Total Hours: 18

Code	Title	Hours
Minor Requirements		
AMST 3223	Theories and Methods of American Studies	3
Select 9 hours of additional AMST-prefix courses [1]		9
Select 6 hours upper-division courses with a focus relevant to the field of American Studies approved by faculty coordinator		6
Total Hours		**18**

1

6 hours of which must be upper-division.

Other Requirements

- GPA of 2.5 with no grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

American Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses.		
No more than 9 hours in Major Requirements may be taken from 2000 level courses		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		
Select 9 hours (6 hours must be upper division) of additional AMST courses other than AMST 3223 and AMST 4973 and courses listed in the following four categories.		9
American History		
Select 6 hours of the following (3 hours must be upper-division):		6
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	

HIST 4363	US History through Popular and Unpopular Music (DH)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies		
Select 6 hours of the following (3 hours must be upper division):		6
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies		
Select 6 hours of the following:		6
AFAM 1113	Introduction to Africana Studies (DH)	
AMIS 2013	Introduction to American Indian Studies (D)	
AMIS 4013	American Indian Sovereignty (D)	
AMST 2683	Introduction to Digital Humanities (H)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3853	Pragmatism (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 4033	Religion in Early America (H)	
Social Sciences		
Select 6 hours of the following:		6
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	

POLS 3453	U.S. Congress
POLS 3483	The American Presidency
POLS 3493	Public Policy
POLS 3513	Public Opinion and Polling
POLS 3523	Money, Media And Politics
POLS 3533	Lobbying and the Power of Organized Interests
POLS 3613	State and Local Government
POLS 3663	Introduction to Political Thought
POLS 3683	Politics in Contemporary Film
POLS 3953	Minorities in the American Political System (DS)
POLS 3963	State Courts and the Bar
POLS 3973	Race, Politics and Sports (D)
POLS 3983	Courts and Judicial Process (S)
POLS 4000	Advanced Topics in American Politics
POLS 4013	American Foreign Policy
POLS 4223	Social Movements
POLS 4403	Urban Politics and Management
POLS 4553	American Political Thought
POLS 4573	Democratic Theory
POLS 4623	Oklahoma Politics (S)
POLS 4693	Gender and Politics
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties
POLS 4973	U.S. Constitution: Separation of Powers
SOC 2123	Social Problems (DS)
SOC 3133	Racial and Ethnic Relations (DS)
SOC 3323	Collective Behavior and Social Movements
SOC 3343	Technology and Society
SOC 3523	Juvenile Delinquency (DS)
SOC 3713	Religion, Culture and Society
SOC 3993	Sociology of Aging (DS)
SOC 4103	The Death Penalty in America (S)
SOC 4043	Gender and Work (DS)
SOC 4213	Sociology of Sexualities (S)
SOC 4333	Criminology (S)
SOC 4383	Social Stratification (S)
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
SOC 4473	Oklahoma Environmental Sociology
SOC 4643	Sociology of Gender (S)
SOC 4723	Sociology of Families (S)
Select 9 hours of upper-division courses	9
Hours Subtotal	**48**
Electives	
Select 10 hours	10
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 1 additional upper-division hour	
Hours Subtotal	**10**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript

which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Education courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education courses		12
	Hours	**15**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
General Education courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
2000-level Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

American Studies, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Subtotal Hours		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-division General Education		
6 hours outside AMST, American History and American Literature		
See note 2.c.		
Subtotal Hours		**13**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses. No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		
Select 9 hours (6 hours must be upper division) of AMST courses other than AMST 3223 & AMST 4973; and courses listed in the following four categories.		9
American History		
Select 6 hours of the following (3 hours must be upper-division):		6
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	
HIST 4363	US History through Popular and Unpopular Music (DH)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	

HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies		
Select 6 hours of the following (3 hours must be upper-division):		6
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies		
Select 6 hours of the following:		6
AFAM 1113	Introduction to Africana Studies (DH)	
AMIS 2013	Introduction to American Indian Studies (D)	
AMST 2683	Introduction to Digital Humanities (H)	
AMIS 4013	American Indian Sovereignty (D)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 3853	Pragmatism (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 4033	Religion in Early America (H)	
Social Sciences		
Select 6 hours of the following:		6
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3493	Public Policy	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	

POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3613	State and Local Government	
POLS 3663	Introduction to Political Thought	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3963	State Courts and the Bar	
POLS 3973	Race, Politics and Sports (D)	
POLS 3983	Courts and Judicial Process (S)	
POLS 4000	Advanced Topics in American Politics	
POLS 4013	American Foreign Policy	
POLS 4223	Social Movements	
POLS 4403	Urban Politics and Management	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3343	Technology and Society	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3713	Religion, Culture and Society	
SOC 3993	Sociology of Aging (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4333	Criminology (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
9 hours upper-division courses		9
Subtotal Hours		**48**
Electives		**19**
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature (see note 2.c.) and 1 additional upper-division hour.		
Subtotal Hours		**19**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Education courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education courses		12
	Hours	**15**
Sophomore		
Fall		
General Education courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

American Studies: American Indian Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one course from:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first-year seminar course)	1
Arts & Humanities		
AMIS 2013	Introduction to American Indian Studies (D)	3
6 additional hours. (See note 2.a.)		6
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Languages		
(See note 3.)		9
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses. No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		
AMST courses (6 hours must be upper-division) other than AMST 3223 and AMST 4973.		9
American History (upper-division)		*3*
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	

HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies (upper-division)		*3*
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies		*3*
AMST 2683	Introduction to Digital Humanities (H)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 3853	Pragmatism (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 3573	The Religions of Native Americans (DH)	
REL 4033	Religion in Early America (H)	
Social Sciences		*3*
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3493	Public Policy	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3613	State and Local Government	
POLS 3663	Introduction to Political Thought	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3963	State Courts and the Bar	
POLS 3973	Race, Politics and Sports (D)	
POLS 3983	Courts and Judicial Process (S)	
POLS 4000	Advanced Topics in American Politics	
POLS 4013	American Foreign Policy	

POLS 4223	Social Movements	
POLS 4403	Urban Politics and Management	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3343	Technology and Society	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3713	Religion, Culture and Society	
SOC 3993	Sociology of Aging (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4333	Criminology (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
American Indian Studies		
AMIS 4013	American Indian Sovereignty (D)	3
ENGL 3183	Native American Literature (DH)	3
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	3
HIST 3793	Native American History (DH)	3
9 hours from the following AMIS-related courses		9
AMIS 3713	Native American Entrepreneurship (D)	
AMIS 4000	Independent Study in American Indian Studies	
ENGL 4333	Studies in Native American Literature	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4493	Frontier in American Memory (H)	
HIST 4523	American Environmental History (H)	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
SOC 3133	Racial and Ethnic Relations (DS)	
Hours Subtotal		**48**
Electives		**10**
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**10**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which

demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
2000-level Foreign Language		3
American Indian Studies courses		6
College and Electives courses		3
	Hours	**15**
Spring		
American Indian Studies courses		6
College and Electives courses		9
	Hours	**15**
Senior		
Fall		
American Indian Studies courses		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
American Indian Studies course		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

American Studies: American Indian Studies, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one course from:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
(See note 2.b.)		9
Foreign Languages		
0-6 hours		
(See note 3.)		
Upper-Division General Education		
6 hours outside AMST, American History and American Literature		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses. No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		*9*
Select 9 hours (6 hours must be upper-division) AMST courses other than AMST 3223 and AMST 4973.		
American History (upper-division):		*3*
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	

HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies (upper-division):		*3*
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies:		*3*
AMST 2683	Introduction to Digital Humanities (H)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 3853	Pragmatism (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 3573	The Religions of Native Americans (DH)	
REL 4033	Religion in Early America (H)	
Social Sciences:		*3*
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3493	Public Policy	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3613	State and Local Government	
POLS 3663	Introduction to Political Thought	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3963	State Courts and the Bar	
POLS 3973	Race, Politics and Sports (D)	
POLS 3983	Courts and Judicial Process (S)	
POLS 4000	Advanced Topics in American Politics	
POLS 4013	American Foreign Policy	

POLS 4223	Social Movements	
POLS 4403	Urban Politics and Management	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3343	Technology and Society	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3713	Religion, Culture and Society	
SOC 3993	Sociology of Aging (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4333	Criminology (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
American Indian Studies:		
AMIS 4013	American Indian Sovereignty (D)	3
ENGL 3183	Native American Literature (DH)	3
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	3
HIST 3793	Native American History (DH)	3
9 hours from the following AMIS-related courses:		9
AMIS 3713	Native American Entrepreneurship (D)	
AMIS 4000	Independent Study in American Indian Studies	
ENGL 4333	Studies in Native American Literature	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4493	Frontier in American Memory (H)	
HIST 4523	American Environmental History (H)	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
SOC 3133	Racial and Ethnic Relations (DS)	
Hours Subtotal		**48**
Electives		
19 hours of Electives		19
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**19**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
American Indian Studies courses		6
College and Electives courses		6
	Hours	**15**
Spring		
American Indian Studies courses		6
College and Electives courses		9
	Hours	**15**
Senior		
Fall		
American Indian Studies courses		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
American Indian Studies course		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

American Studies: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, excluding MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Languages		
(See note 3.)		9
Non-Western Studies		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses.		
No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
9 hours (6 hours must be upper-division):		9
AMST courses other than AMST 3223 and AMST 4973 and courses listed in the following four categories:		
American History (3 hours must be upper-division)		*6*
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	

HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies (3 hours must be upper-division)		*6*
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies		*6*
AFAM 1113	Introduction to Africana Studies (DH)	
AMIS 2013	Introduction to American Indian Studies (D)	
AMIS 4013	American Indian Sovereignty (D)	
AMST 2683	Introduction to Digital Humanities (H)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 3853	Pragmatism (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 4033	Religion in Early America (H)	
Social Sciences		*6*
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3493	Public Policy	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	

POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3613	State and Local Government	
POLS 3663	Introduction to Political Thought	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3963	State Courts and the Bar	
POLS 3973	Race, Politics and Sports (D)	
POLS 3983	Courts and Judicial Process (S)	
POLS 4000	Advanced Topics in American Politics	
POLS 4013	American Foreign Policy	
POLS 4223	Social Movements	
POLS 4403	Urban Politics and Management	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3343	Technology and Society	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3713	Religion, Culture and Society	
SOC 3993	Sociology of Aging (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4333	Criminology (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**51**
Electives		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature. See note 2.c.		
7 hours of Electives		7
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also

be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
2000-level Foreign Language		3
College and Electives courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

American Studies: Business Essentials, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one course from:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, excluding MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
(See note 2.b.)		9
Foreign Languages		
0-6 hours		
(See note 3.)		
Upper-Division General Education		
6 hours outside AMST, American History and American Literature		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses.		
No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
9 hours (6 hours must be upper-division):		9
AMST courses other than AMST 3223 and AMST 4973 and courses listed in the following four categories:		
American History (3 hours must be upper-division):		*6*
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	

HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies (3 hours must be upper-division):		*6*
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4400	Studies in Regional Literature	
Humanities and Interdisciplinary Studies:		*6*
AFAM 1113	Introduction to Africana Studies (DH)	
AMIS 2013	Introduction to American Indian Studies (D)	
AMIS 4013	American Indian Sovereignty (D)	
AMST 2683	Introduction to Digital Humanities (H)	
AMST 3503	Television and American Society (DH)	
AMST 3513	Film And American Society (H)	
AMST 3550	The Arts and American Society	
AMST 3673	History Of American Art (DH)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
ART 4613	Art Since 1960	
ART 4763	Native American Art and Material Culture	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
GEOG 4223	Geography of Music (H)	
GWST 2123	Introduction to Gender Studies (DH)	
GWST 3513	Theorizing Sexualities (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 4113	Feminist Theories	
GWST 4503	Theorizing Men and Masculinities	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3741	Survey of Rock and Roll I	
MUSI 3751	Survey of Rock and Roll II	
PHIL 2043	Philosophy of Film (H)	
PHIL 2053	Philosophy in Literature (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3813	American Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
PHIL 3853	Pragmatism (H)	
PHIL 4113	Philosophy & the Arts (H)	
REL 4033	Religion in Early America (H)	
Social Sciences:		*6*
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
ECON 3823	American Economy: The Past and Present (S)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4113	Environment and Development	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4213	Sport, Place and Society (S)	
GWST 2113	Transnational Women's Studies (S)	
POLS 2023	The Individual And The Law	
POLS 2423	Voting and Elections	
POLS 3353	Political Parties	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3493	Public Policy	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying and the Power of Organized Interests	

POLS 3613	State and Local Government	
POLS 3663	Introduction to Political Thought	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3963	State Courts and the Bar	
POLS 3973	Race, Politics and Sports (D)	
POLS 3983	Courts and Judicial Process (S)	
POLS 4000	Advanced Topics in American Politics	
POLS 4013	American Foreign Policy	
POLS 4223	Social Movements	
POLS 4403	Urban Politics and Management	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 2123	Social Problems (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3343	Technology and Society	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3713	Religion, Culture and Society	
SOC 3993	Sociology of Aging (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4043	Gender and Work (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4333	Criminology (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
Business Essentials:		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**51**
Electives		
16 hours of Electives		16
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature (see note 2.c.) and 1 additional upper-division hour		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language,

which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

American Studies: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses		
No more than 9 hours in Major Requirements may be taken from 2000 level courses		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		
Select 9 hours (6 hours must be upper division) of additional AMST courses other than AMST 3223 and AMST 4973; and courses listed in the following three categories.		9
American History		
Select 6 hours (3 hours must be upper division) of the following:		6
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	

HIST 4363	US History through Popular and Unpopular Music (DH)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies		
Select 6 hours (3 hours must be upper-division) of the following:		6
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Legal Emphasis		
Select 12 hours upper division of the following:		12
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
GEOG 3133	Political Geography (GS)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 3523	Money, Media And Politics	
POLS 3963	State Courts and the Bar	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
POLS 4980	Advanced Topics in Public Law	
PSYC 4293	Forensic Psychology	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4313	Sociology of Law	
SOC 4333	Criminology (S)	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4793	Nonverbal Communication (S)	
Select 9 hours of upper-division courses		9
Hours Subtotal		**48**
Electives		**10**
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Recommend ECON 2103 and POLS 2023		
Hours Subtotal		**10**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
1713 First Semester Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
2000-level Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
American Indian Studies courses		6
College and Electives courses		9
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

American Studies: Pre-Law, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
See note 2.b.		6
Foreign Languages		
See note 3.		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside AMST, American History and American Literature		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all AMST upper-division courses. No more than 9 hours in Major Requirements may be taken from 2000-level courses.		
AMST 3223	Theories and Methods of American Studies	3
AMST 4973	Senior Seminar in American Studies	3
American Studies		
Select 9 hours (6 hours must be upper division) of additional AMST courses other than AMST 3223 and AMST 4973 and courses listed in the following four categories.		9
American History		
Select 6 hours from the following (3 hours must be upper-division):		6
HIST 2133	African Diaspora History(DH)	
HIST 2153	African American History, 1619-1865 (DH)	
HIST 2163	African American History, 1865-Present (DH)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	
HIST 3753	Trans-Mississippi West (DH)	
HIST 3763	American Southwest (DH)	
HIST 3773	The American South to 1860	
HIST 3793	Native American History (DH)	
HIST 3803	History of Food (H)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4073	Digital Methods in History	
HIST 4173	Black Intellectual History (DH)	
HIST 4253	U.S. Foreign Relations to 1945 (H)	
HIST 4273	U.S. Foreign Relations Since 1945 (H)	
HIST 4353	American Military History (H)	

HIST 4363	US History through Popular and Unpopular Music (DH)	
HIST 4453	History and Film (H)	
HIST 4463	American Cultural History to 1865 (H)	
HIST 4483	American Cultural History Since 1865 (H)	
HIST 4493	Frontier in American Memory (H)	
HIST 4513	Economic History of the US (S)	
HIST 4523	American Environmental History (H)	
HIST 4543	Vietnam War (GH)	
HIST 4553	Gender in America (DH)	
HIST 4563	Cold War (GH)	
HIST 4593	America in International Perspective (H)	
American Literary and Cultural Studies		
Select 6 hours from the following (3 hours must be upper-division):		6
ENGL 2453	Introduction to Film and Television (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 3153	Readings in Literature by Women (DH)	
ENGL 3183	Native American Literature (DH)	
ENGL 3190	Readings in Postcolonial and Multiethnic Literature	
ENGL 3193	African-American Literature (DH)	
ENGL 3410	Readings in Popular Fiction	
ENGL 3453	History of American Film (H)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 3813	Readings in the American Experience (DH)	
ENGL 4093	Language in America (DS)	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4230	Literature of Diversity	
ENGL 4333	Studies in Native American Literature	
ENGL 4400	Studies in Regional Literature	
Legal Emphasis		
Select 12 hours (upper-division) from the following:		12
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
AMST 4103	The Death Penalty in America (S)	
GEOG 3133	Political Geography (GS)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3523	Money, Media And Politics	
POLS 3963	State Courts and the Bar	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
POLS 4980	Advanced Topics in Public Law	
PSYC 4293	Forensic Psychology	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4313	Sociology of Law	
SOC 4333	Criminology (S)	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
SOC 4103	The Death Penalty in America (S)	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4793	Nonverbal Communication (S)	
9 hours of upper-division courses		9
Subtotal Hours		**48**
Electives		**19**
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside AMST, American History and American Literature (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**19**
Recommend ECON 2103 and POLS 2023		
Total Hours		**120**

Other Requirements:

- See College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education,

College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
AMST 2103	Introduction to American Studies (DH)	3
General Education Courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
General Education Courses		12
	Hours	**15**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
AMST 3223	Theories and Methods of American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
AMST 4973	Senior Seminar in American Studies	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Truth and Reconciliation in the Americas (TRRA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 Life Sciences East (S), 405-744-5658, anthony.valentine@okstate.edu
In Tulsa, contact: **Angel Ray**, 918-594-8271, bangel@okstate.edu

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Required Courses		
AMST 3373	Comparative Truth and Reconciliation in the Americas (D)	3
AMST 4990	Internship	3
Select 9 hours from:		9
AFAM 2423	Black Popular Culture (DH)	
AFAM 3950	Special Topics in Africana Studies	
AFAM 4543	Race Theory	
AMST 2103	Introduction to American Studies (DH)	
AMST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
or HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
AMST 3303	Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)	
or HIST 3303	Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)	
AMST 3333	Crime, Law and American Culture (S)	
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
AMST 3950	Special Topics in American Studies (DH)	
AMST 4103	The Death Penalty in America (S)	
or SOC 4103	The Death Penalty in America (S)	
AMST 4593	America in International Perspective (H)	
ENGL 3183	Native American Literature (DH)	
ENGL 3193	African-American Literature (DH)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 4453	Black Geographies & Memorialization in the Landscape (DH)	
or AFAM 4453	Black Geographies & Memorialization in the Landscape (DH)	
or AMST 4453	Black Geographies & Memorialization in the Landscape (DH)	
GWST 3553	LGBTQ Lives in the United States (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
HIST 3793	Native American History (DH)	
HIST 4153	African American History, 1619-1865 (DH)	
HIST 4163	African American History, 1865-Present (DH)	
PHIL 3623	Philosophy of Race (DH)	
POLS 2313	Social Justice Politics (D)	
POLS 4223	Social Movements	
SOC 3133	Racial and Ethnic Relations (DS)	
Other courses may be approved by the Program Director.		
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Art, Graphic Design and Art History

The Department of Art, Graphic Design and Art History offers courses for students who are interested in the visual arts or wish to major in studio art, graphic design or art history. Minors are also available in studio art and art history. Fields of concentration include drawing, oil painting, printmaking, graphic design, electronic media, photography and digital media, ceramics, jewelry/metalsmithing, sculpture and art history.

The Bachelor of Art (BA) includes options in art history and studio art that can be combined with teacher certification; the Bachelor of Fine Arts (BFA) is a professional degree with options in studio art or graphic design.

In order to qualify for graduation, art majors must have grade-point averages in Art Department courses of 2.50 for a BA in Studio Art, 3.0 for a BA in Art History, and 2.75 for a BFA in Studio Art or Graphic Design.

Students who wish to major in graphic design must have a minimum overall GPA of 2.75 to enroll in 2000-level graphic design courses. As of Fall 2019, Students must have taken or be enrolled in two 2000-level graphic design courses (ART 2413 and ART 2423) and completed their foundations level studio art classes (ART 1103, ART 1203, and ART 1303) before their sophomore portfolio review, which is scheduled each spring semester. Students who wish to transfer into the graphic design program with earned credit in these courses are subject to the same review and must submit portfolio materials with application for admission into the program no later than April 1. This portfolio review determines which students are qualified to proceed to 3000-level graphic design courses. Students who pass the graphic design portfolio review are furthermore required to purchase a MacBook Pro laptop computer for use in the classroom and at home. Specifications are available on the Department's website, http://art.okstate.edu.

The Department of Art, Graphic Design and Art History is able to offer substantial scholarships at all levels, freshman through senior, on a competitive basis.

The Gardiner Gallery of Art in the Bartlett Center for the Visual Arts, the Department's main building, hosts up to ten exhibitions per year. Exhibitions include the work of faculty, students, and national and international artists. Students and faculty also curate special exhibitions in the Gardiner Gallery.

Courses

ART 1103 Drawing I
Description: A freehand drawing experience designed to build basic skills and awareness of visual relationships. A sequence of problems dealing with composition, shape, volume, value, line, gesture, texture and perspective. A variety of media explored.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1113 Drawing II
Prerequisites: ART 1103.
Description: Objective and subjective approaches to visual problem solving in a variety of black and white and color media. The analysis and manipulation of form, light, space, volume, and the formal aspects of perspective.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1203 Visual Thinking: Image and Surface
Description: Investigation of fundamental design principles and visual elements through the process of image making. Students explore the dynamics of composition through developing approaches to aesthetics, visual analysis, perception and narrative. Provides experience with a variety of two-dimensional media and develops core skills in observation, craft and technique. Emphasis is placed on interdisciplinary learning through lectures, discussions, critiques, and the process of making images.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1303 Visual Thinking: Form and Space
Description: Investigation of fundamental design principles of form through the process of object making. Students explore concepts of interaction between form, space and movement through developing approaches to the construction and manipulation of materials. Provides experience with a variety of three-dimensional media and develops skills in observation, craft and technique. Emphasis is placed on interdisciplinary learning through lectures, discussions, critiques, and the process of making objects. Course previously offered as ART 2203.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 1503 Art History Survey to 1400 (H)
Description: Introduction to the history of art, from the Prehistoric era to c. 1400 CE. Introduces visual arts from diverse regions and cultures. Investigates the cultural, social, religious, political, and personal contexts that surround art and architecture. Focuses on skills such as visual literacy and analysis, critical thinking, and writing about art. May be taken independently of ART 1513. Previously offered as ART 2603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 1513 Art History Survey Since 1400 (H)
Description: Part 2 of the introduction to the history of art, from c. 1400 CE to present. Introduces visual arts from diverse regions and cultures. Investigates the cultural, social, religious, political, and personal contexts that surround art and architecture. Focuses on skills such as visual literacy and analysis, critical thinking, and writing about art. May be taken independently of ART 1503. Previously offered as ART 2613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 1603 Introduction to Global Art (H)
Description: Introductory survey of global art history, with emphasis on modern and contemporary art. Intended for non-art majors. Course previously offered as ART 1803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 2003 Studio Methods and Preparation
Description: Portfolio concept development including idea generation, sketchbook, analyzing and evaluating art criticism and select contemporary artists. Professional portfolio presentation, including matting, artwork documentation and resume as a precursor to the Sophomore review. Course previously offered as ART 2002.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2013 Non-Major Ceramics I
Description: Introduction to basic building techniques including wheel throwing, coiling, and slab construction, as well as slip and glaze application and a variety of firing processes. Exposure to historical and contemporary references. Emphasis on personal growth through technique and concept. Same course as ART 2253.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2023 Non-Major Oil Painting I
Description: The development of skills in oil painting stressing form and content, visual perception, and individual expression. Technical instruction applicable to individual problems and needs. Same course as ART 2223.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2033 Non-Major Watercolor I
Description: The development of technical skills stressing color, form, and content. Assignments cover paper preparation and support, brush handling, pigment characteristics and mixing, and all basic dry surface and wet surface painting techniques. Same course as ART 2233.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2043 Non-Major Jewelry and Metals I
Description: Fabrication and forming techniques for non-ferrous metals. Cold joinery, silver soldering, surface treatment and elementary stone setting. Applications toward either wearable or small scale sculptural format. Same course as ART 2243.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2063 Non-Major Sculpture I
Description: Explore creative expression while learning a variety of sculptural processes and techniques. Begin developing spatial sensitivity, conceptual thinking, and critical thinking through engaging with broad contemporary art themes. Same course as ART 2263.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2073 Non-Major Printmaking I
Description: Varied print processes, including monotypes, relief printmaking, and intaglio. Fundamental techniques of each medium that include inking, printing, editioning multiples, and both additive and subtractive approaches. Same course as ART 2273.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2093 Non-Major Photography I
Description: An introduction to the use of photography as an art form. Exploration of traditional and current photographic methods with an emphasis on creating a foundational understanding of the medium's core concepts and techniques. Students will shoot, process, and print their own images, which will be discussed in critique with reference to basic photographic theory. Previously offered as ART 2803. Same course as ART 2293.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2113 Life Drawing
Prerequisites: ART 1113.
Description: Introduction to life drawing with emphasis on preliminary linear construction and structural aspects of the figure, including the study of general body proportions, rapid visualization, and figure-ground relationships.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2223 Oil Painting I
Prerequisites: ART 1113 and ART 1203 and ART 1303, or consent of instructor.
Description: The development of skills in oil painting stressing form and content, visual perception, and individual expression. Technical instruction applicable to individual problems and needs. Previously offered as ART 3123. Same course as ART 2023.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2233 Watercolor I
Prerequisites: ART 1113 , ART 1203 , ART 1303 , or consent of instructor.
Description: The development of technical skills stressing color, form, and content. Assignments cover paper preparation and support, brush handling, pigment characteristics and mixing, and all basic dry surface and wet surface painting techniques. Previously offered as ART 3133. Same course as ART 2033.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2243 Jewelry and Metals I
Prerequisites: ART 1113, ART 1303; consent of instructor.
Description: Fabrication and forming techniques for non-ferrous metals. Cold joinery, silver soldering, surface treatment and elementary stone setting. Applications toward either wearable or small scale sculptural format. Previously offered as ART 3343. Same course as ART 2043.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2253 Ceramics I
Prerequisites: ART 1113, ART 1303, or consent of instructor.
Description: Introduction to basic building techniques including wheel throwing, coiling, and slab construction, as well as slip and glaze application and a variety of firing processes. Exposure to historical and contemporary references. Emphasis on personal growth through technique and concept. Previously offered as ART 3503. Same course as ART 2013.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2263 Sculpture I
Prerequisites: ART 1113, ART 1303.
Description: Explore creative expression while learning a variety of sculptural processes and techniques. Begin developing spatial sensitivity, conceptual thinking, and critical thinking through engaging with broad contemporary art themes. Previously offered as ART 3323. Same course as ART 2063.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2273 Printmaking I
Prerequisites: ART 1113, ART 1203, ART 1303, or consent of instructor.
Description: Varied print processes, including monotypes, relief printmaking, and intaglio. Fundamental techniques of each medium that include inking, printing, editioning multiples, and both additive and subtractive approaches. Same course as ART 2073.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2283 Studio Art Digital Survey
Prerequisites: ART 1103 and ART 1303 and ART 1203 or ART 2423 and ART 2413 or by consent of instructor.
Description: This studio art course is an introduction to concepts, tools and techniques related to digital technology. Students will work specifically with digital video, sound editing, digital photography, digital imaging and printing. Projects in the course will focus on fostering an introductory to intermediate level understanding of digital technologies and formats, while allowing more advanced students to incorporate media of personal interest, such as performance, assemblage, projection, and installation, as well as other hybrid and emerging art forms.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2293 Photography I
Prerequisites: ART 1103, ART 1203 and ART 1303, or consent of instructor.
Description: An introduction to the use of photography as an art form. Exploration of traditional and current photographic methods with an emphasis on creating a foundational understanding of the medium's core concepts and techniques. Students will shoot, process, and print their own images, which will be discussed in critique with reference to basic photographic theory.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2403 Illustration I
Prerequisites: ART 1113 and 2.75 graduation/retention GPA.
Description: Introduction to historic and contemporary illustration and consideration of a wide range of illustrative styles. Required experiments with media and consideration of alternate ways of illustrating a message through conceptual and compositional variations.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2413 Typography I
Prerequisites: ART 1103 and 2.75 graduation/retention GPA.
Description: An investigation of letter forms and their characteristics and a study of spacing, leading, type selection, layout alternatives, type specification, and copy fitting. Preliminary introduction to typography as a communication medium. An understanding of typographic terminology and measuring systems while developing hand skills and introducing computer technology.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2423 Graphic Design I
Prerequisites: ART 1103 and 2.75 graduation/retention GPA.
Description: Exploration of basic design principles—line, form, and color, as visual communication. Problem solving, generation of ideas, development of concepts, and the integration of word and image. Technical and presentation skills.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 2563 American Social Dance and Visual Culture
Description: This introductory course offers a beginning-level survey of the cultural history of social dance in North America from the eighteenth century to the present. It combines study of the history, theory, and visual/material culture of social dance with physical practice of specific dance forms. Because few comprehensive written sources exist for social dance, visual art, including film, animation, paintings, sculpture, photography, and illustration, is a vital tool for understanding historic dance and its role in American society. Over the course of the semester, we will examine the visual culture of social dance in order to gain insight into its historical functions as a tool for social cohesion, intercultural exchange, protest/activism, and identity formation, among other things. Through the practice of these dance forms, we will add an experiential component to our analysis of the roles that social dance has played in American culture over time. Same course as DANC 2563.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Art

ART 2573 Art History Sophomore Seminar
Description: Designed specifically for art history majors, and typically taken during the sophomore year, this course covers fundamentals of research and writing. Course will also examine select critical theories and their methodological application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 2890 Art History Honors Add-on
Prerequisites: Consent from the art department.
Description: A guided reading and research program ending with an honors credit under the direction of a faculty member. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 3110 Life Drawing Studio
Prerequisites: ART 2113 or consent of instructor.
Description: The development of formal and expressive aspects of drawing by direct observation of the figure and its environment. Emphasis on media experimentation, aesthetic considerations, personal concepts, and anatomy. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3213 Public and Installation Art
Prerequisites: ART 1303 or permission of instructor.
Description: Intermediate level course that offers students the opportunity to explore mixed media and multi-media art production through site-sensitive and site specific projects. Lectures will include contemporary and historical examples. Students will have access to a tool shop with instruction and assistance provided. Projects are designed and created for sites outside of the classroom, allowing for individual exploration based upon interests.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Art

ART 3223 Oil Painting II
Prerequisites: "C" or better in ART 2223 or ART 2023 or consent of instructor.
Description: Oil Painting with emphasis on personal development of visual ideas and techniques.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3233 Watercolor II
Prerequisites: "C" or better in ART 2233 or ART 2033 or consent of instructor.
Description: Stresses continued growth of technical skills with an emphasis on the individual development of ideas and imagery.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3243 Jewelry And Metals II
Prerequisites: ART 2243 or ART 2043 or consent of instructor.
Description: Development of technical skills and ideas through assigned projects. Metalworking processes include casting, advanced stone setting, hinge making, and forming of metal.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3253 Ceramics II
Prerequisites: "C" or better in ART 2253 or ART 2013 or consent of instructor.
Description: Focus on either hand building or throwing techniques. Development of personal expression and technical proficiency with the material and advanced firing and glazing processes. Emphasizing contemporary ceramic issues as well as broader art concepts.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3263 Sculpture II
Prerequisites: "C" or better in ART 2263 or ART 2063 or consent of instructor.
Description: Builds on the themes, processes, and materials explored in Sculpture I. Coursework fosters experimentation to allow discovering artistic values through course projects while advancing spatial sensitivity, conceptual thinking, and critical thinking. Emphasizes historical context and contemporary art practices, allowing students to engage in critical dialogue. Previously offered as ART 3333.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3273 Printmaking II
Prerequisites: "C" or better in ART 2273 or ART 2073 or consent of instructor.
Description: Development of technical skills and ideas through assigned projects. Intaglio processes include aquatint, softground, and multiple color work. Relief processes include reduction with stencils and multiblock. Litho techniques with permission of instructor.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3293 New Genres in Studio Art
Prerequisites: ART 2283.
Description: This course is a continuation of the Studio Art Digital Survey course. New Genres is a continued, more advanced exploration of the concepts, techniques, and history of non-traditional art forms. Students will work in experimental and interdisciplinary ways with non-traditional media such as video, sound, photography, performance, writing, assemblage, and installation. Course previously offered as ART 3283.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3383 Digital Imaging
Prerequisites: ART 2283 or ART 2423 and ART 2433 or by consent of instructor.
Description: This studio art course is a continuation of the concepts, tools, and techniques related to digital technology. Students will work specifically with digital photography, digital imaging and printing. Projects in the course will focus on fostering an intermediate level understanding of digital technologies and alternate process printing formats, while allowing more advanced students to incorporate media of personal interest.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3393 Photography II
Prerequisites: "C" or better in ART 2293 or ART 2803 or ART 2093 or consent of instructor.
Description: A further exploration of the creative opportunities in photography. Students will build on the basic understanding of the medium acquired in the introductory course, and respond to assigned aesthetic and conceptual problems. In this intermediate course, students will begin to articulate ideas visually and refine their technical skills in camera operation, digital imaging software, and large format printing.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3403 Illustration II
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Exploration of illustrative solutions to maximize visual interest via varied viewpoints, concepts and altered reality. Projects involving different career areas within the field of illustration. Requirements and advantages of each area.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3413 Typography II
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Exploration of typographic communication through a variety of problems. Type as the visual solution with emphasis on its functional, decorative, and creative applications. Solution of more complex typographic problems, dealing with a large body of information via the development of grid systems.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3423 Graphic Design II
Prerequisites: ART 2403, ART 2413, ART 2423, and portfolio review.
Description: Use of computer and traditional methods to enhance production skills and solution of design projects from concept to the comprehensive. Evaluation and design of symbols and logos and their various applications, leading to an understanding of system design. Introduction to graphic design production and the preparation of art for reproduction.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3453 Motion Design I
Prerequisites: ART 2403, ART 2413, ART 2423 and portfolio review.
Description: Introduction to the basic concepts and techniques of motion design as visual communication. Students are introduced to the technical skills and critical thinking necessary for executing creative motion graphics intended to be experienced via electronic media, with an emphasis on typography, composition and design principles.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3463 Interaction Design I
Prerequisites: ART 2413, ART 2423 and portfolio review.
Description: Introduction to the basic concepts and techniques of interaction design as visual communication. Use of computer software to execute interactive design work intended to be experienced via electronic media, with an emphasis on typography, functionality and design principles.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 3543 Leonardo, Art, And Science (H)
Description: Explores the deeply entwined fields of Renaissance art and science through the lens of Leonardo's extraordinarily diverse body of work. This course will consider the broader context of anatomical study, alchemy, early modern medicine, technological innovation, and psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3553 Fashioning and Self Fashioning: The Renaissance Portrait (H)
Description: Exploration of portraits created in Europe during the Renaissance. Addresses self-fashioning and artifice and the portrait as the collaborative product of artist, patron and subject.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3563 History of Prints and Printmaking
Description: A survey of graphic art primarily focused on Europe and the United States, from the 15th - 20th centuries. Relief, intaglio, lithography, photography, and other graphic media. Previously offered as ART 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3573 History of Photography
Description: An introduction to the history of photography from its beginnings in the early nineteenth century to the present. Emphasis will be on art and documentary photography in Europe and the United States. Photographs will be studied for their aesthetic, technical, cultural, and scientific purposes. The primary goal of the course is to promote critical and theoretical thinking about photographic images, their meaning, and impact on society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3583 Introduction to Museum and Curatorial Studies (H)
Description: Historical and theoretical introduction to museum and curatorial studies. Topics include museum ethics, the function of the curator, and the changing role of the museum. Same course as HIST 3593. Previously offered as ART 2643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3600 Writing Methods In Art History
Prerequisites: Consent of instructor.
Description: A supervised research and writing project, typically concurrent with enrollment in an upper division art history course. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 3603 History of Classical Art (H)
Description: Stylistic, philosophical, and formal qualities of art in the Classical world. The creation of the Greek ideal and its dissemination in the Roman world through architecture, sculpture, and painting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3623 History of Italian Renaissance Art (H)
Description: Architecture, sculpture, and painting in Italy, c.1300-1580. Major artists in their local contexts (e.g. Leonardo in Milan, Michelangelo in Florence, and Titian in Venice).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3633 History of Baroque Art (H)
Description: Art in 17th century Europe. Architecture, sculpture and painting of the Catholic Reformation (e.g. Caravaggio and Bernini in Italy, Velasquez in Spain, Rubens in Flanders), concluding with painting in non-sectarian, Protestant Netherlands (Rembrandt and Vermeer).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3643 History of Graphic Design
Description: Evolution of graphic communication from prehistoric times to the present. Investigation of the origins of printing and typography in Europe leading to the design of the printed page, the impact of industrial technology upon visual communication and the study of the growth and development of modern graphic design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3653 History of 19th Century Art (H)
Description: Art of 19th century Europe-ideals, conflicts, escapes, and triumphs, beginning with the French Revolution and ending in 1900.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3663 History of American Art (DH)
Description: Visual arts in America from the Colonial period to the present. Major styles, ideas and uses of material in architecture, painting, sculpture, and design. Same course as AMST 3673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ART 3673 History of Northern Renaissance Art
Description: Art in Northern Europe, c. 1200-1550. Emphasis on panel painting in the Netherlands (e.g. Van Eyck, Bosch), and book illustration in Germany (Durer).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3683 History of 20th Century Art (GH)
Description: Beginning with the birth of "modernism" in the late 19th century, exploration of the fast-changing artistic styles of the 20th century: abstraction, expressionism, fantasy, realism, surrealism, and social protest. Emphasis on the relationship of art and 20th century society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 3693 Survey of Asian Art (H)
Description: Arts of India, China, Japan and related countries in their historical and cultural settings. Traditions of painting, sculpture and architecture from their beginnings to the modern period. Same course as ART 2693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3713 Early Medieval Art: Saints, Martyrs, Pagans (H)
Description: Examination of the visual culture (sculpture, manuscripts, architecture, etc.) of the multicultural early Middle Ages in Europe and the wider Mediterranean world, from roughly 400 to 1050; includes Early Christian, Islamic, Byzantine, Germanic, Carolingian, Ottonian, and Anglo-Saxon artistic production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3723 Court and Cloister: Medieval Art 1050-1400 (H)
Description: Examination of the visual culture (sculpture, manuscripts, architecture, etc.) of the later Middle Ages in Europe and the wider Mediterranean world, from roughly 1050 through 1400; includes Islamic, Byzantine, Romanesque, and Gothic artistic production. Course previously offered as ART 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3733 History of Latin American Art I
Description: An overview of Latin American visual culture from the Precolumbian period to the present. We consider Maya, Aztec, and Inca cultures, the colonial arts of Spanish America, the South American avante garde, Mexican muralism and surrealism, and contemporary video, performance and installation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3743 History of Latin American Art II (GH)
Description: Exploration of modern Latin American Art, beginning with academic painting and emerging nationalisms in the nineteenth century and continuing through Mexican Muralism, modern art movements in South America, and contemporary painting, film, video, performance, and installation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 3753 The Arts of Spain and the Spanish World (H)
Description: The art and culture of Spain and the Spanish world, including Paleolithic art, Renaissance and Baroque works from the Iberian Peninsula and American viceroyalties, and ending with Picasso and Miro.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 3763 Art Travel Course
Description: Art courses involved with the participation of a formal or informal travel experience outside the state.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3773 History of African American Art
Description: The history of African American visual arts and material culture. Topics might include black visual artists and movements, black art criticism, global contexts, and museum practices in relation to African American artists and/or artists of the African diaspora.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3800 Special Topics in Art History
Description: Art history course on special subjects and various issues. Offered on campus. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 3890 Art History Honors Course
Prerequisites: Consent from the Art Department.
Description: Departmental invitation, Honors Program participation. A guided reading and research program ending with an honors under the direction of a faculty member. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 4053 Alternative Photography
Prerequisites: ART 3393, Photography II.
Description: This photography course provides an introduction to traditional photographic processes such as silver gelatin, salt prints, cyanotype, Van Dyke, and gum bichromate. Students will learn a variety of analog photographic processes as avenues to explore current questions in the medium. Through a series of assigned readings and regular critiques, students will consider their projects from a contemporary art perspective.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4100 Advanced Drawing
Prerequisites: ART 1113 and ART 1203 and ART 2113.
Description: An open medium investigation of drawing concepts, stressing personal thematic development, experimentation, and individually designed imagery. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4211 BFA Studio Capstone Exhibition
Prerequisites: Must have passed the BFA Studio Capstone Exhibition Review, must have consent of instructor.
Description: Provides individual guidance and instruction necessary for mounting the BFA Studio Capstone Exhibition. This exhibition is the culminating event of the studio major's studies and a final preparation for a career in the studio arts. Enrollment must occur during the semester in which the BFA Studio Capstone Exhibition is to be mounted.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4213 BFA Studio Capstone
Prerequisites: ART 2003, and concurrent enrollment in upper-division studio art course, or consent of instructor.
Description: The purpose of this course is to provide students with the knowledge they need to make a career in art. Using the art they are preparing for the BFA Studio Capstone Exhibition, students will develop presentation and marketing materials in line with the professional standards of the field. They will be taught how to find, recognize and pursue artistic opportunities. Previously offered as ART 4210.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4220 Oil Painting Studio
Prerequisites: ART 3223.
Description: Oil painting with emphasis on continuing personal development of visual ideas and techniques. Course previously offered as ART 4120. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4223 BA Studio Capstone
Prerequisites: ART 2003 and senior standing or consent of instructor.
Description: The course provides guided assistance to BA Studio Art students in developing a professional portfolio as it relates to their career interests in the arts. Previously offered as ART 4110.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4230 Watercolor Studio
Prerequisites: ART 3233.
Description: Stresses continued growth of personal imagery with an emphasis on the development of a consistent body of work and professional portfolio. Course previously offered as ART 4130. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4240 Jewelry and Metals Studio
Prerequisites: ART 3243.
Description: Emphasis on further development of personal concepts and technical skills through assigned and individual oriented projects. Broad-based exploration of advanced metalworking processes with emphasis on individual students' direction and technical needs. Course previously offered as ART 4340. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4250 Ceramics Studio
Prerequisites: ART 3253.
Description: Intended for students who want to specialize in the ceramic field of art. Will include sophisticated techniques of clay, glaze and firing methods. Emphasis on creation of a unique, well researched, aesthetically concise, and technically successful body of work. Course previously offered as ART 4500. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4260 Sculpture Studio
Prerequisites: ART 3263.
Description: A broad-based course which allows students to pursue individual interests using a variety of materials and processes. Emphasis on further development of concepts, skills, and techniques. Course previously offered as ART 4330. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4270 Printmaking Studio
Prerequisites: ART 3273 and proficiency review or consent of instructor.
Description: A broad-based course which allows students to pursue individual interests using a variety of printmaking materials and processes. Emphasis on further development of concepts, skills and techniques. Offered for fixed credit, 3 credit hours, maximum repeat 12.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4280 Photography Studio
Prerequisites: ART 3393 or consent of instructor.
Description: The development of a personal artistic expression using photography. Through a combination of assigned and self-directed projects, this advanced course focuses on the continued development of conceptual aptitude and technical skills. The emphasis is on developing a creative body of work and engaging current and theoretical trends in the medium. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4420 Graphic Design Studio
Prerequisites: ART 3423, ART 3443 or consent of instructor.
Description: Design and production of projects suited to the professional portfolio. Discussion of practical issues including career options, resume and portfolio preparation, and interview techniques. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4430 Illustration Studio
Prerequisites: ART 3403, ART 3443 or consent of instructor.
Description: Conceptual development and production of illustrations in series. Development of individual style and assembly of a professional and consistent portfolio. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4450 Motion Design Studio
Prerequisites: ART 3443 or consent of instructor.
Description: Exploration of motion design as visual communication. Development of technical skills and critical thinking necessary for executing creative motion graphics portfolio work intended to be experienced via electronic media, with an emphasis on conceptual development and application of design principles. Course previously offered as ART 4453. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4460 Interaction Design Studio
Prerequisites: ART 3453 or consent of instructor.
Description: Exploration of the visual and technical aspects of interaction with various electronic platforms to design effective graphical user interfaces. Emphasis on quantitative and qualitative research, process, and traditional graphic design methods for creating user-centered digital environments. Offered for fixed credit, 3 credit hours, maximum repeat 9.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4493 Portfolio Capstone
Prerequisites: Senior standing and consent of instructor.
Description: Final preparation of a professional portfolio, culminating in an extensive design project and the design, organization and production of an exhibition of work. Professional study on setting fees, writing contracts, working with an agent and other business practices.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4583 Rome: The Eternal City in Art and Film (H)
Description: The idea of Rome as seen through ancient and modern visual culture. Course begins with the Augustan propaganda machine and subsequently considers the most significant imperial image-makers to follow. A major portion of the course will be devoted to more recent and modern projections of the city, from Mussolini's New Rome to Fellini's Roma. No credit for students with credit in ART 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4593 Art of Conversion: 16th Century Art in Mexico (H)
Description: Art and architecture of the sixteenth century, including mission architecture, early altar-screens, the effect of European imports on native art production, and the role of confraternities and public ceremonies on contact-period culture. No credit for students with credit in ART 5593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4603 History of Ancient Egyptian Art
Description: Broad survey of ancient Egyptian art and architecture from Pre-dynastic to the beginning of the Christian Era under Roman rule (4000 B.C.-320 A.D.). Discussion within the context of religious meaning and overall cultural development of ancient Egypt.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4613 Art Since 1960
Description: This course explores some of the artistic, conceptual, and theoretical developments in art since 1960. Course covers major trends in art history—including Minimalism, Pop, Performance, and Conceptual Art, Social Practice, and more. Students will consider many of the socio-political issues relevant to the study of global contemporary art. May not be used for degree credit with ART 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4653 History of Indian Art
Description: The history and culture of South Asia (India and Pakistan) are explored through its arts —architecture, sculpture, painting, and design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4663 History of Chinese Art (H)
Description: The arts of China in their historical, cultural, religious, and social context. Painting, sculpture, architecture, porcelain, furniture, and decorative arts. No credit for students with credit in ART 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures

ART 4673 History of Japanese Art
Description: Critical social, religious, and historical issues in the arts of Japan. Painting, sculpture, architecture, landscape architecture, prints, and decorative arts. No credit for students with credit in ART 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4683 Modern and Contemporary Art in Asia
Description: Modern and contemporary art in Asia. Special attention to the role of race, gender, and social class on artistic production. May not be used for degree credit with ART 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4693 Gender And Visual Culture
Description: Explores themes and issues surrounding gender in relation to art history and visual culture more broadly. Topics may include artists and creators, sexuality, the body, eroticism, historicizing gender, feminism and feminist theory, etc. No credit for students with credit in ART 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4703 Art East and West: Biases and Borrowings
Description: Explores the complicated interaction, cultural borrowings and responses on many levels of two major world systems, the "West" (Europe and America) and the "East" (South and East Asia). Beginning with the development of the sea trade in the 16th century, the course will study, through works of art, the effect of history, politics, religious struggles, economics, trade and ethnic biases on the cultures of East and West. No credit for students with credit in ART 5703.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 4713 The Visual Culture of the Islamic World (GH)
Description: Examines the visual culture, including art and architecture, of the Islamic world, dating from the inception of Islam in seventh-century Arabia through today. No credit for students with credit in ART 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ART 4723 History of Museums and Collecting
Description: Investigation of the history of museums and collecting practices in Western Europe and the United States from the sixteenth century to the mid-20th century. Same course as ART 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4733 Museum Education
Prerequisites: ART 1513 or ART 2643 or by permission of instructor.
Description: Introduction to the major topics in museum education, including how object based learning is used with individuals and groups. Addresses the major pedagogical issues surrounding the use of art and other objects in museums. May not be used for degree credit with ART 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4763 Native American Art and Material Culture
Description: Survey of the history and material production of the Native American tribes living within the boundaries of the continental United States and Canada. Focus on basic concepts and primary issues related to tribes of the major geographical areas: the woodland areas, which includes the Northeast and Great Lakes area, the Southeast, the Great Plains, the Southwest, the Plateau and West Coast, and the Northwest Coast. No credit for students with credit in ART 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4783 Rembrandt Van Rijn
Prerequisites: ART 1503 or ART 1515 or ART 1603 or by permission of instructor.
Description: The Dutch artist Rembrandt van Rijn (1606-1669) was one of the most important and innovative painters and printmakers of the seventeenth century. This course will acquaint students with both his extensive body of work and the central critical issues that interest scholars today. Same course as ART 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4793 Architecture and Space in East Asia
Description: History of Architecture in East Asia from the traditional Chinese timber frame to the 20th century. Will address how architecture delivers political ideologies and structures social relationships, both symbolically and in practice. May not be used for degree credit with ART 5793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4800 Special Studies in Art
Prerequisites: Junior standing and consent of instructor.
Description: Courses in media exploration, special subjects and current issues. Offered on campus or through extension workshops. Offered for variable credit, 1-3 credits, max 9.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4810 Museum Internship
Description: An on-site museum experience, including exhibition selection and preparation, collection cataloging and research, and museum administration. Offered for variable credit, 1-3 credits, max 9.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4813 Museum Exhibition
Description: Designing an exhibition that draws on the Oklahoma State University art collection. Includes museum history, theory, and curatorial practice. Same course as ART 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4820 Graphic Design Internship
Prerequisites: ART 3403 or ART 3423 and consent of instructor.
Description: An on-site graphic design work experience that provides professional practice under the supervision of a design professional. Offered for variable credit, 1-6 credits, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4830 Apprenticeship
Description: Professional opportunity to work with artists of national and international reputation. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4840 Studio Art Internship
Prerequisites: Formal written approval of Studio Art faculty sponsor and on-site supervisor.
Description: The studio art internship provides direct occupational experience in a professional arts related work environment under the direct supervision of a professional or someone of significant stature in an arts related field. A final associated paper/project is required. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4850 Special Topics in Graphic Design
Prerequisites: ART 3423 and ART 4420 or ART 4450 or ART 4460.
Description: Course in graphic design and design media exploration, current practices, and contemporary issues. Includes specific topics such as: advanced typography, (lettering, typeface design), exhibition design, way-finding and navigational graphics, design writing workshop, magazine design, new media tools, and creative coding. Offered on campus or through extension workshops. May not be used for degree credit with ART 5850.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art

ART 4860 Art History Seminar
Description: Art history seminar courses on special subjects and various issues. Open to major and non-major students. May not be used for degree credit with ART 5860. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4900 Directed Study In Art
Prerequisites: Junior standing and written permission of department head.
Description: Self-designed special topics in studio art or graphic design. By contract only. May not be used for degree credit with ART 5900. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4910 Directed Study in Art History
Prerequisites: Junior standing and written consent of department head.
Description: Self-designed special topics in art history. By contract only. May not be used for degree credit with ART 5910. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4920 Art History Symposium
Prerequisites: ART 4943.
Description: Specifically for art history majors, and typically taken during the student's final year. Students participate in a public presentation of a research paper prepared in ART 4943 (Art History Senior Capstone). Special attention is given to argument, methodology, visual, and overall presentation. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Art

ART 4933 Art in Context
Prerequisites: One hour of ART 3600.
Description: Designed specifically for art history majors, and typically taken during the junior year, this course examines select critical theories and their methodological application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4943 Art History Senior Capstone
Prerequisites: ART 1503, ART 1513, Art 2573, and one 3000- or 4000-level Art History course.
Description: Designed specifically for art history majors, and typically taken during the senior year, this course guides students through the research, writing, and presentation of a capstone research paper. Additional topics may include career preparation and professional development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4973 20th Century Chinese Art
Description: This course will explore the ways in which Chinese artists of the 20th century have defined China's history and culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Art

ART 4993 Senior Honors Project
Prerequisites: Departmental invitation, Senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis or project under the direction of a faculty member. Required for graduation with departmental honors in art.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Art
General Education and other Course Attributes: Honors Credit

ART 5000 Art History Master's Thesis
Description: Independent study course intended to provide guidance for research and writing of MA Thesis in art history. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5013 Theory and Methods in Art History
Description: This course examines the field of art history in terms of its historiography, research methods, critical frameworks and theoretical underpinnings. Students are expected to develop and articulate their own theoretical and methodological position in the context of and with explicit reference to contemporary praxis and theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5280 Graduate Photography
Prerequisites: Graduate Standing.
Description: The development of a personal artistic expression using photography and related media. Through a combination of assigned and self-directed projects, this advanced course focuses on the continued development of conceptual aptitude and technical skills. The emphasis is on developing a creative body of work and engaging current and theoretical trends in the medium.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5400 Graduate Study: Graphic Design Thesis
Description: Independent inquiry based on an original idea associated with a student's chosen area of concentration under the direction and supervision of a major professor and graduate thesis committee. Thesis requires the definition of a graphic design problem, research of case studies and visual works relevant to the thesis topic, and the creation of an outline for the thesis. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5410 Graduate Graphic Design Internship
Description: On-site, graphic design work experience that provides graduate level students with professional practice under the supervision of a design professional. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5413 Graduate Teaching Practicum in Graphic Design
Description: This course is intended to provide graduate graphic design students seeking a career in higher education with university-level teaching methods and professional practices of curriculum development, syllabus writing, clarity of thinking, and various components of professional papers and presentations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5420 Graduate Graphic Design Studio
Description: Introduction to the advanced concepts and techniques of graphic design as visual communication. Graduate students are introduced to the critical thinking necessary and technical skills for executing creative graphics work intended to be experienced via print media, with an emphasis on typography, composition and design principles. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5423 Graduate Study in Graphic Design History
Description: This course builds on foundational knowledge of graphic design history. Emphasis is placed on in-depth review and analysis of ground breaking design movements and perspectives, from modernism to contemporary era. Lectures, readings, research and other course activities will bring forth critical understanding of the relationship of history, design and culture as interconnected thread throughout time.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5440 Graduate Special Topics in Graphic Design
Description: Application of graphic design processes utilizing hybrid media and forms to address research topics. Emphasis on creative approaches to concept-driven design projects and development of a theoretical framework appropriate for graduate level work. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5450 Graduate Motion Design Studio
Description: Exploration of motion design as visual communication. Development of technical skills and critical thinking necessary for executing creative motion graphics portfolio work intended to be experienced via electronic media, with an emphasis on conceptual development and application of design principles. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5460 Graduate Interaction Design Studio
Description: Exploration of the visual and technical aspects of interaction with various electronic platforms to design effective graphical user interfaces. Emphasis on quantitative and qualitative research, process and traditional graphic design methods for creating user-centered digital environments. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5470 Graduate Study in Graphic Design
Description: Intensive graduate course of study in the fundamentals of graphic design. The course emphasizes research and analysis and the design processes that lead to creative conceptualization and final design solutions. Students are expected to demonstrate sophisticated design decisions and appropriate design solutions that demonstrate a high level of expertise and achievement to be experienced via print media. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5480 Graduate Study in Motion Design
Description: Graduate level course in motion design (also referred to as motion graphics). This course provides students with the opportunity to conduct research, develop advanced technical skills and apply critical thinking to graphic design using time based media. Students will explore the role motion design plays in shaping meaning and contributing to visual culture. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5490 Graduate Study in Interaction Design
Description: Interaction Design, as it relates to the field of Graphic Design, is the creation of a dialogue between a person and a product, system, or interplay between form, function, and technology as experienced over time. Students will explore the role of graphic design while conducting sound research in a variety of disciplines such as psychology, communication theory, and sensory integration. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Lab: 6-18 Contact: 6-18
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5583 Rome Eternal City
Description: The idea of Rome as seen through ancient and modern visual culture. Course begins with the Augustan propaganda machine and subsequently considers the most significant imperial image-makers to follow. A major portion of the course will be devoted to more recent and modern projections of the city, from Mussolini's New Rome to Fellini's Roma. No credit for students with credit in ART 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5593 Art of Conversion: 16th Century Art in Mexico
Description: Art and architecture of the sixteenth century, including mission architecture, early altar-screens, the effect of European imports on native art production, and the role of confraternities and public ceremonies on contact-period culture. No credit for students with credit in ART 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5613 Art Since 1960
Description: This course explores some of the artistic, conceptual, and theoretical developments in art since 1960. Course covers major trends in art history-including Minimalism, Pop, Performance, and Conceptual Art, Social Practice, and more. Students will consider many of the socio-political issues relevant to the study of global contemporary art. May not be used for degree credit with ART 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5663 History Of Chinese Art
Description: Critical social, religious, and historical issues in the arts of China. Painting, sculpture, architecture, porcelain, furniture, and decorative arts. No credit for students with credit in ART 4663.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5673 History of Japanese Art
Description: Critical social, religious, and historical issues in the arts of Japan. Painting, sculpture, architecture, landscape architecture, prints, and decorative arts. No credit for students with credit in ART 4673.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5683 Modern and Contemporary Art in Asia
Description: Modern and contemporary art in Asia. Special attention to the role of race, gender, and social class on artistic production. May not be used for degree credit with ART 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5693 Gender and Visual Culture
Description: Explores themes and issues surrounding gender in relation to art history and visual culture more broadly. Topics may include artists and creators, sexuality, the body, eroticism, historicizing gender, feminism and feminist theory, etc. No credit for students with credit in ART 4693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5703 Art East and West: Biases and Borrowings
Prerequisites: Instructor permission.
Description: Explores the complicated interaction, cultural borrowings and responses on many levels of two major world systems, the "West" (Europe and America) and the "East" (South and East Asia). Beginning with the development of the sea trade in the 16th century, the course will study, through works of art, the effect of history, politics, religious struggles, economics, trade and ethnic biases on the cultures of East and West. No credit for students with credit in ART 4703.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Art

ART 5713 Islamic Visual Culture
Description: Examines the visual culture, including art and architecture, of the Islamic world, dating from the inception of Islam in seventh-century Arabia through today. No credit for students with credit in ART 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5723 History of Museums and Collecting
Prerequisites: Graduate standing.
Description: Investigation of the history of museums and collecting practices in Western Europe and the United States from the sixteenth century to the mid-20th century. Same course as ART 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5730 Practicum in Curatorial Practice
Prerequisites: Graduate standing.
Description: Curatorial experience under the supervision of a museum and curatorial studies certificate program faculty member. Students will assist in the conceptualization, research and organization of an existing curatorial project or create one of their own. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5733 Museum Education
Prerequisites: Graduate standing.
Description: Introduction to the major topics in museum education, including how object-based learning is used with individuals and groups. Addresses the major pedagogical issues surrounding the use of art and other objects in museums. Same course as ART 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5763 Native American Art and Material Culture
Prerequisites: Permission of instructor.
Description: Survey of the history and material production of the Native American tribes living within the boundaries of the continental United States and Canada. Focus on basic concepts and primary issues related to tribes of the major geographical areas: the woodland areas, which includes the Northeast and Great Lakes area, the Southwest, the Great Plains, the Southwest, the Plateau and West Coast, and the Northwest Coast. No credit for students with credit in ART 4763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5783 Rembrandt Van Rijn
Prerequisites: Graduate student standing.
Description: On-site museum experience, including exhibition selection and preparation, collection cataloging and research, museum education, and museum administration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5793 Architecture and Space in East Asia
Description: History of Architecture in East Asia from the traditional Chinese timber frame to the 20th century. Will address how architecture delivers political ideologies and structures social relationships, both symbolically and in practice. May not be used for degree credit with ART 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5810 Museum Studies Internship
Prerequisites: Graduate student standing.
Description: On-site museum experience, including exhibition selection and preparation, collection cataloging and research, museum education, and museum administration. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5813 Museum Exhibition
Prerequisites: Graduate standing or permission of instructor.
Description: Designing an exhibition that draws on the Oklahoma State University art collection. Includes museum history, theory, and curatorial practice. Same course as ART 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5850 Special Topics in Graphic Design
Description: Course in graphic design and design media exploration, current practices, and contemporary issues. Includes specific topics such as: advanced typography, (lettering, typeface design), exhibition design, way-finding and navigational graphics, design writing workshop, magazine design, new media tools, and creative coding. Offered on campus or through extension workshops. May not be used for degree credit with ART 4850. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Art

ART 5860 Art History Seminar
Description: Art history seminar courses on special subjects and various issues. Open to major and non-major students. May not be used for degree credit with ART 4860. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

ART 5900 Graduate Studies in Art
Prerequisites: BA, BFA or 15 upper-division hours in a discipline; consent of instructor.
Description: Projects in art with emphasis on portfolio preparation. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5910 Graduate Studies in Art History
Prerequisites: BA, BFA or 15 upper-division hours in art history; consent of instructor.
Description: Advanced research in art history. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5920 Art History Graduate Seminar
Description: Special topics graduate seminar in art history. Offered for variable credit, 3-12 credit hours, maximum of 12 credit hours.
Credit hours: 3-12
Contact hours: Contact: 3-24 Other: 3-24
Levels: Graduate
Schedule types: Independent Study
Department/School: Art

ART 5973 20th Century Chinese Art
Description: This course will explore the ways in which Chinese artists of of the 20th century have defined China's history and culture. May not be used for degree credit with ART 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Art

Undergraduate Programs

- Art: Art History, BA (p. 1084)
- Art: Graphic Design, BFA (p. 1088)
- Art: Studio Art, BA (p. 1092)
- Art: Studio, BFA (p. 1096)

Graduate Programs

The Department of Art, Graphic Design and Art History offers an MA Program in Art History.

The Master of Arts Degree in Arts History

This program differs from most traditional art history programs through its emphasis on intercultural connections, globalism and transnationalism. The program includes a broad geo-cultural spectrum with six full-time faculty members who specialize in the art of the Americas, Europe and Asia. In partnership with the OSU Museum of Art, Postal Plaza Gallery and the Gardiner Gallery of Art in the Bartlett Center, students may also take coursework and gain hands-on training in museum and curatorial studies. The MA degree requires a minimum of 30 hours of graduate coursework, a thesis and a defense. Students will select two geographic areas of concentration within the five currently offered in the Department of Art, one to be the major area and the other the minor (the current areas are Europe, United States, Latin America, East Asia, and the Islamic World). A selection of courses, both lecture and seminar, will be taken in these areas. At least one course outside the department will be in the major area. Generally, the master's thesis will relate to the cultural connections between the major and minor areas. There is also a 36-credit non-thesis option. An additional museum and curatorial studies graduate certificate is also available as an option to students.

Art History Admission Requirements

All applicants must complete the online application (including the submission of transcripts, fee, and for international students, TOEFL scores), to be found at grad.okstate.edu (http://gradcollege.okstate.edu). In addition, applicants should also submit three letters of recommendation, a statement of purpose and a writing sample (5-10 pages; an excerpt from a longer work is acceptable). Prerequisites include five undergraduate courses in art history; foreign language experience is also recommended. While many applicants will have majored in art history, the MA program welcomes applications from graduates with bachelor's degrees in other fields. MA students may take prerequisites during the program; however, they will not count toward the 30 hours required for graduation.

The Master of Fine Arts in Graphic Design

This program specializes in a unique combination of Interaction Design, Motion Design and Visual Communication. Interaction Design and Motion Design in particular are among the most rapidly expanding areas in the

field of graphic design. This is a three-year, sixty credit hour, terminal degree that will develop students' expertise as graphic designers in Interaction Design and Motion Design, while developing their research, presentation and writing skills. MFA graduates will be able to respond to both the creative demands of the graphic design profession and the research and teaching requirements of academia.

Graphic Design Admission Requirements

All applicants must complete the online application (including the submission of transcripts, fee, and for international students, TOEFL scores), to be found at grad.okstate.edu (https://gradcollege.okstate.edu). In addition, applicants should also submit three letters of recommendation, a statement of purpose and a portfolio of 15 to 20 examples of work.

Minors

- Art History (ARTH), Minor (p. 1083)
- Pre-Art Therapy (PART), Minor (p. 1100)
- Studio Art (STDA), Minor (p. 1101)

Faculty

Chris Whittey, MFA—Department Head
Professors: Rebecca Brienen, PhD; Jennifer Borland, PhD; Chris Ramsay, MFA; Brandon Reese, MFA; Liz Roth, MFA; Chris Whittey, MFA
Associate Professors: Cristina Crúz Gonzalez, PhD; Pouya Jahanshahi, MFA; Andy Mattern, MFA; Justen Renyer, MFA; Shaoqian Zhang, PhD
Assistant Professors: Mary Claire Becker, MFA; Karen Greenwalt, PhD; Kendra Grrendeer, PhD; Molly Kaderka, MFA; Nick Mendoza, MFA; Ben Murphy, MFA; Jessica Teckemeyer, MFA; Ting Wang-Hedges, MFA

Art History (ARTH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Ulrike Schoenknecht, 408 BC, 405-744-4064

Total Hours: 15

Code	Title	Hours
Minor Requirements		
Choose 5 courses of Art History, of which at least 12 hours must be upper-division.		15
ART 1503	Art History Survey I (H)	
ART 1513	Art History Survey II (H)	
ART 1603	Introduction to Global Art (H)	
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (HI)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (HI)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4603	History of Ancient Egyptian Art	
ART 4613	Art Since 1960	
ART 4653	History of Indian Art	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4683	Modern and Contemporary Art in Asia	
ART 4693	Gender And Visual Culture	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (HI)	
ART 4723	History of Museums and Collecting	
ART 4733	Museum Education	
ART 4763	Native American Art and Material Culture	
ART 4793	Architecture and Space in East Asia	
ART 4800	Special Studies in Art	
ART 4810	Museum Internship	
ART 4813	Museum Exhibition	
ART 4830	Apprenticeship	
ART 4910	Directed Study in Art History	
ART 4920	Art History Symposium	
ART 4933	Art in Context	
ART 4973	20th Century Chinese Art	
ART 4993	Senior Honors Project	
Total Hours		**15**

Other Requirements

- GPA of 2.5 with no grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Art: Art History, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 3.00 GPA in all Art History courses [1]		
Minimum grade of "C" in all ART courses		
Art History Core		
ART 1503	Art History Survey to 1400 (H)	3
ART 1513	Art History Survey Since 1400 (H)	3
ART 2573	Art History Sophomore Seminar	3
ART 4943	Art History Senior Capstone	3
ART 4920	Art History Symposium (Specifically for art history majors, and typically taken during the student's final year. Students participate in a public presentation of a research paper prepared in ART 4943 (Art History Senior Capstone). Special attention is given to argument, methodology, visual, and overall presentation.)	1
Art History Electives		
Select 24 hours (18 hours must be upper-division) from:		24
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (GH)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (GH)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	

ART 4603	History of Ancient Egyptian Art
ART 4613	Art Since 1960
ART 4653	History of Indian Art
ART 4663	History of Chinese Art (H)
ART 4673	History of Japanese Art
ART 4683	Modern and Contemporary Art in Asia
ART 4693	Gender And Visual Culture
ART 4703	Art East and West: Biases and Borrowings
ART 4713	The Visual Culture of the Islamic World (GH)
ART 4723	History of Museums and Collecting
ART 4733	Museum Education
ART 4763	Native American Art and Material Culture
ART 4793	Architecture and Space in East Asia
ART 4800	Special Studies in Art
ART 4810	Museum Internship
ART 4813	Museum Exhibition
ART 4830	Apprenticeship
ART 4910	Directed Study in Art History
ART 4920	Art History Symposium
ART 4973	20th Century Chinese Art
ART 4993	Senior Honors Project
Upper-Division Related Courses	
Select 6 hours of ARCH, AMST, ANTH, HIST, PHIL, or other courses with approval of departmental advisor	6
Hours Subtotal	**43**
Electives	
Select 15 hours. May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 9 additional upper-division hours	15
Hours Subtotal	**15**
Total Hours	**120**

1

Courses include those listed below:

Code	Title	Hours
Art History course list		
HIST 3593	Introduction to Museum and Cultural Studies (H)	
ART 1513	Art History Survey Since 1400 (H)	
ART 1603	Introduction to Global Art (H)	
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3573	History of Photography	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (GH)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (GH)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 3763	Art Travel Course	
ART 3773	History of African American Art	
ART 3800	Special Topics in Art History	
ART 3890	Art History Honors Course	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4603	History of Ancient Egyptian Art	
ART 4613	Art Since 1960	
ART 4653	History of Indian Art	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4683	Modern and Contemporary Art in Asia	
ART 4693	Gender And Visual Culture	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (GH)	
ART 4723	History of Museums and Collecting	
ART 4733	Museum Education	
ART 4763	Native American Art and Material Culture	
ART 4783	Rembrandt Van Rijn	
ART 4800	Special Studies in Art	
ART 4810	Museum Internship	
ART 4813	Museum Exhibition	
ART 4830	Apprenticeship	
ART 4910	Directed Study in Art History	
ART 4920	Art History Symposium	
ART 4933	Art in Context	
ART 4973	20th Century Chinese Art	
ART 4993	Senior Honors Project	

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree

requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
ART 1503	Art History Survey to 1400 (H)	3
General Educations courses		9
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
ART 1513	Art History Survey Since 1400 (H)	3
General Education Courses		9
	Hours	**15**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
Upper-division Art History		3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
3 hours Upper-Division Art History		3
Major, College, and Elective courses		6
ART 2573	Art History Sophomore Seminar	3
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3

6 hours Upper-Division Art History		6
Major, College, and Elective courses		6
	Hours	**15**
Spring		
3 hours Upper-Division Art History		3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
6 hours Upper-Division Art History		6
Major, College, and Elective courses		6
ART 4943	Art History Senior Capstone	3
	Hours	**15**
Spring		
ART 4920	Art History Symposium	1
3 hours Upper-Division Art History		3
Major, College, and Elective courses		11
	Hours	**15**
	Total Hours	**120**

Art: Graphic Design, BFA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ART 3683	History of 20th Century Art (GH)	3
Select 3 hours upper-division Art History from:		3
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3573	History of Photography	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (GH)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (GH)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4603	History of Ancient Egyptian Art	
ART 4613	Art Since 1960	
ART 4653	History of Indian Art	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4683	Modern and Contemporary Art in Asia	
ART 4693	Gender And Visual Culture	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (GH)	
ART 4723	History of Museums and Collecting	
ART 4733	Museum Education	
ART 4763	Native American Art and Material Culture	
ART 4793	Architecture and Space in East Asia	
ART 4800	Special Studies in Art	
ART 4810	Museum Internship	
ART 4813	Museum Exhibition	
ART 4830	Apprenticeship	
ART 4910	Directed Study in Art History	
ART 4920	Art History Symposium	
ART 4933	Art in Context	
ART 4973	20th Century Chinese Art	
ART 4993	Senior Honors Project	
Select 3 additional hours		3
See note 2.a.		
Foreign Language		

See note 3		0
0-6 hours		
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**10**
Major Requirements		
Minimum GPA in all ART courses 2.75 with a minimum grade of "C" in all ART courses		
Core Curriculum		
ART 1103	Drawing I	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1303	Visual Thinking: Form and Space	3
ART 1503	Art History Survey to 1400 (H)	3
ART 1513	Art History Survey Since 1400 (H)	3
Lower-division Professional Sequence		
2.75 GPA required to take courses:		
ART 2413	Typography I	3
ART 2423	Graphic Design I	3
Select 3 hours Studio Art from:		3
ART 1113	Drawing II	
ART 2113	Life Drawing	
ART 2223	Oil Painting I	
ART 2233	Watercolor I	
ART 2243	Jewelry and Metals I	
ART 2253	Ceramics I	
ART 2263	Sculpture I	
ART 2273	Printmaking I	
ART 2283	Studio Art Digital Survey	
ART 2293	Photography I	
ART 2093	Non-Major Photography I	
Select 12 hours upper-division Studio Art or career-related areas from:		12
ART 3110	Life Drawing Studio	
ART 3213	Public and Installation Art	
ART 3223	Oil Painting II	
ART 3233	Watercolor II	
ART 3243	Jewelry And Metals II	
ART 3253	Ceramics II	
ART 3263	Sculpture II	
ART 3273	Printmaking II	
ART 3293	New Genres in Studio Art	
ART 3383	Digital Imaging	
ART 3393	Photography II	
ART 3403	Illustration II	
ART 3413	Typography II	
ART 3423	Graphic Design II	
ART 3453	Motion Design I	
ART 3463	Interaction Design I	
ART 4053	Alternative Photography	
ART 4100	Advanced Drawing	
ART 4211	BFA Studio Capstone Exhibition	
ART 4213	BFA Studio Capstone	
ART 4220	Oil Painting Studio	
ART 4223	BA Studio Capstone	
ART 4230	Watercolor Studio	
ART 4240	Jewelry and Metals Studio	
ART 4250	Ceramics Studio	
ART 4260	Sculpture Studio	
ART 4270	Printmaking Studio	
ART 4280	Photography Studio	
ART 4420	Graphic Design Studio	
ART 4430	Illustration Studio	
ART 4450	Motion Design Studio	
ART 4460	Interaction Design Studio	
ART 4493	Portfolio Capstone	
ART 4800	Special Studies in Art	
ART 4820	Graphic Design Internship	
ART 4830	Apprenticeship	
ART 4900	Directed Study In Art	
MC 2003	Mass Media Style and Structure	
MC 2023	Digital Media Essentials	
MC 3173	History of Mass Communication (H)	
MC 4143	Ethics and Issues in Mass Communications	
MC 4153	International Mass Communication	
MC 4163	Mass Communication Law	
MC 4733	Responsibility in Mass Communication	
MMJ 3153	Fundamentals of Video and Studio Production	
MMJ 3263	Multimedia Reporting	
MMJ 3293	Information Graphics	
MMJ 3913	Multimedia Content Creation	
MMJ 4393	Data Journalism	
MMJ 4540	Specialized Multimedia Journalism Applications	
SC 2183	Introduction to Strategic Communications	
SC 3753	Graphic Design for Strategic Communication	
SC 4013	Media and Markets	
SC 4653	Influencers, Promotions and Placements	
MKTG 3213	Marketing (S)	
MKTG 3313	Personal Marketing and Professional Development	
MKTG 3323	Consumer and Market Behavior	
MKTG 3433	Promotional Strategy	
MKTG 3473	Professional Selling	
MKTG 3613	Retailing Management	
MKTG 3993	International Business (G)	
MKTG 4333	Marketing Research	
MKTG 4343	Brand Marketing	

MKTG 4443	Social Issues in the Marketing Environment (D)	
MKTG 4513	Sales Management	
MKTG 4550	Problems In Marketing	
MKTG 4553	International Marketing	
MKTG 4623	Marketing Design Essentials	
MKTG 4993	Digital Marketing	
MSIS 2103	Business Data Science Technologies	
Upper-division Professional Sequence		
Proficiency review required to take courses:		
ART 3413	Typography II	3
ART 3423	Graphic Design II	3
ART 3453	Motion Design I	3
ART 3463	Interaction Design I	3
ART 3643	History of Graphic Design	3
ART 4493	Portfolio Capstone	3
Select 9 hours of the following:		9
ART 4420	Graphic Design Studio (3-6 hours)	
ART 4450	Motion Design Studio (3-6 hours)	
ART 4460	Interaction Design Studio (3-6 hours)	
Hours Subtotal		**63**
Electives		
Select 7 hours		7
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ART 1103	Drawing I	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1503	Art History Survey to 1400 (H)	3
General Education courses		5
	Hours	**14**
Spring		
ART 1513	Art History Survey Since 1400 (H)	3
ART 1303	Visual Thinking: Form and Space	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
ART 2413 or ART 2423	Typography I or Graphic Design I	3
ART 3643	History of Graphic Design	3
General Education courses		9
	Hours	**15**
Spring		
ART 2423 or ART 2413	Graphic Design I or Typography I	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
ART 3413	Typography II (F)	3
ART 3453 or ART 3463	Motion Design I or Interaction Design I	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
ART 3423	Graphic Design II (Sp)	3
ART 3463 or ART 3453	Interaction Design I or Motion Design I	3
College and Elective courses		9
	Hours	**15**
Senior		
Fall		
ART 3683	History of 20th Century Art (GH)	3
ART 4420	Graphic Design Studio	3
ART 4450 or ART 4460	Motion Design Studio or Interaction Design Studio	3
College and Elective courses		6
	Hours	**15**
Spring		
ART 4493	Portfolio Capstone	3
ART 4460 or ART 4420 or ART 4450	Interaction Design Studio or Graphic Design Studio or Motion Design Studio	3
College and Elective courses		9
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Art: Studio Art, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
First Year Seminar		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA in all ART courses 2.50 with a minimum grade of "C" in all ART courses		
Core		
ART 1103	Drawing I	3
ART 1113	Drawing II	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1303	Visual Thinking: Form and Space	3
ART 1503	Art History Survey to 1400 (H)	3
ART 1513	Art History Survey Since 1400 (H)	3
ART 2003	Studio Methods and Preparation	3
2-D and 3-D Studios		
Select 9 hours of the following:		9
Select 3-6 hours of the following:		
ART 2113	Life Drawing	
ART 2223	Oil Painting I	
ART 2273	Printmaking I	
ART 2293	Photography I	
Select 3-6 hours of the following:		
ART 2243	Jewelry and Metals I	
ART 2253	Ceramics I	
ART 2263	Sculpture I	
Upper-division Art History		
Select 6 hours from:		6
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3573	History of Photography	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (GH)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	

ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (GH)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4603	History of Ancient Egyptian Art	
ART 4613	Art Since 1960	
ART 4653	History of Indian Art	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4683	Modern and Contemporary Art in Asia	
ART 4693	Gender And Visual Culture	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (GH)	
ART 4723	History of Museums and Collecting	
ART 4733	Museum Education	
ART 4763	Native American Art and Material Culture	
ART 4793	Architecture and Space in East Asia	
ART 4800	Special Studies in Art	
ART 4810	Museum Internship	
ART 4813	Museum Exhibition	
ART 4830	Apprenticeship	
ART 4910	Directed Study in Art History	
ART 4920	Art History Symposium	
ART 4933	Art in Context	
ART 4973	20th Century Chinese Art	
ART 4993	Senior Honors Project	
Upper-division Studio Art		
Select 10 hours from:		10
ART 3110	Life Drawing Studio	
ART 3213	Public and Installation Art	
ART 3223	Oil Painting II	
ART 3243	Jewelry And Metals II	
ART 3253	Ceramics II	
ART 3263	Sculpture II	
ART 3273	Printmaking II	
ART 3393	Photography II	
ART 3403	Illustration II	
ART 3413	Typography II	
ART 3423	Graphic Design II	
ART 3453	Motion Design I	
ART 3463	Interaction Design I	
ART 4053	Alternative Photography	
ART 4100	Advanced Drawing	
ART 4211	BFA Studio Capstone Exhibition	
ART 4213	BFA Studio Capstone	
ART 4220	Oil Painting Studio	
ART 4223	BA Studio Capstone	
ART 4240	Jewelry and Metals Studio	
ART 4250	Ceramics Studio	
ART 4260	Sculpture Studio	
ART 4270	Printmaking Studio	
ART 4280	Photography Studio (9 hours for the Primary Media focus; 6 hours for the Secondary Media focus.)	
ART 4420	Graphic Design Studio	
ART 4430	Illustration Studio	
ART 4450	Motion Design Studio	
ART 4460	Interaction Design Studio	
ART 4493	Portfolio Capstone	
ART 4820	Graphic Design Internship	
ART 4830	Apprenticeship	
ART 4900	Directed Study In Art	
Capstone		
ART 4223	BA Studio Capstone	3
Hours Subtotal		**49**
Electives		
Select 9 hours		9
All electives plus 13 hours general education or college/departmental requirements may need to be upper-division and must include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**9**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/).

This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ART 1103	Drawing I	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1503	Art History Survey to 1400 (H)	3
College and General Education courses		5
	Hours	**14**
Spring		
ART 1113	Drawing II	3
ART 1303	Visual Thinking: Form and Space	3
ART 1513	Art History Survey Since 1400 (H)	3
General Education Courses		7
	Hours	**16**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
ART 2223	Oil Painting I	3
or ART 2233	or Watercolor I	
or ART 2273	or Printmaking I	
or ART 2283	or Studio Art Digital Survey	
or ART 2293	or Photography I	
ART 2243	Jewelry and Metals I	3
or ART 2253	or Ceramics I	
or ART 2263	or Sculpture I	
Major, College, and Elective courses		6
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
ART 2003	Studio Methods and Preparation	3
ART 2233	Watercolor I	3
or ART 2233	or Watercolor I	
or ART 2273	or Printmaking I	
or ART 2283	or Studio Art Digital Survey	
or ART 2293	or Photography I	
or ART 2243	or Jewelry and Metals I	
or ART 2253	or Ceramics I	
or ART 2263	or Sculpture I	
Major, College, and Elective courses		6
	Hours	**15**
Junior		
Fall		
		3
3 hours Upper-division Studio course		3
3 hours Upper-Division Art History		3
College and Elective courses		6
	Hours	**15**
Spring		
3 hours Upper-Division Studio course		3

3 hours Upper-Division Art History		3
College and Elective courses		9
	Hours	**15**
Senior		
Fall		
ART 4223	BA Studio Capstone	3
3 hours Upper-Division Studio course		3
College and Elective courses		9
	Hours	**15**
Spring		
3 hours Upper-Division Studio course		3
College and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Art: Studio, BFA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		
ART 3683	History of 20th Century Art (GH)	3
Select 3 hours upper-division Art History from:		3
ART 3543	Leonardo, Art, And Science (H)	
ART 3553	Fashioning and Self Fashioning: The Renaissance Portrait (H)	
ART 3563	History of Prints and Printmaking	
ART 3573	History of Photography	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3600	Writing Methods In Art History	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3643	History of Graphic Design	
ART 3653	History of 19th Century Art (H)	
ART 3663	History of American Art (DH)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (GH)	
ART 3693	Survey of Asian Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3733	History of Latin American Art I	
ART 3743	History of Latin American Art II (GH)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4603	History of Ancient Egyptian Art	
ART 4613	Art Since 1960	
ART 4653	History of Indian Art	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4683	Modern and Contemporary Art in Asia	
ART 4693	Gender And Visual Culture	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (GH)	
ART 4723	History of Museums and Collecting	
ART 4733	Museum Education	
ART 4763	Native American Art and Material Culture	
ART 4793	Architecture and Space in East Asia	
ART 4800	Special Studies in Art	
ART 4810	Museum Internship	
ART 4813	Museum Exhibition	
ART 4830	Apprenticeship	
ART 4910	Directed Study in Art History	
ART 4920	Art History Symposium	
ART 4933	Art in Context	
ART 4973	20th Century Chinese Art	
ART 4993	Senior Honors Project	
Select 3 additional non-ART hours		3
Foreign Language		

See note 3		
0-6 hours		
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**10**
Major Requirements		
Minimum GPA in all ART courses 2.75 with a minimum grade of "C" in all ART courses		
Core Curriculum		
ART 1103	Drawing I	3
ART 1113	Drawing II	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1303	Visual Thinking: Form and Space	3
ART 1503	Art History Survey to 1400 (H)	3
ART 1513	Art History Survey Since 1400 (H)	3
ART 2003	Studio Methods and Preparation	3
ART 2113	Life Drawing	3
Lower-division Professional Sequence		
2-D studio media:		
Select two of the following:		6
ART 2223	Oil Painting I	
ART 2273	Printmaking I	
ART 2293	Photography I	
3-D studio media:		
Select two of the following:		6
ART 2243	Jewelry and Metals I	
ART 2253	Ceramics I	
ART 2263	Sculpture I	
Upper-division Professional Sequence		
Proficiency review required to take courses:		
Studio primary media focus:		
Select 12 hours of the following:		12
ART 3223 & ART 4220	Oil Painting II and Oil Painting Studio (9 hours)	
ART 3243 & ART 4240	Jewelry And Metals II and Jewelry and Metals Studio (9 hours)	
ART 3253 & ART 4250	Ceramics II and Ceramics Studio (9 hours)	
ART 3263 & ART 4260	Sculpture II and Sculpture Studio (9 hours)	
ART 3273 & ART 4270	Printmaking II and Printmaking Studio (9 hours)	
ART 3393 & ART 4280	Photography II and Photography Studio (9 hours)	
ART 3110 & ART 4100	Life Drawing Studio and Advanced Drawing (3-9 hours)	
Studio secondary media focus:		
Select 9 hours of the following:		9
ART 3223 & ART 4220	Oil Painting II and Oil Painting Studio (6 hours)	
ART 3243 & ART 4240	Jewelry And Metals II and Jewelry and Metals Studio (6 hours)	
ART 3253 & ART 4250	Ceramics II and Ceramics Studio (6 hours)	
ART 3263 & ART 4260	Sculpture II and Sculpture Studio (6 hours)	
ART 3273 & ART 4270	Printmaking II and Printmaking Studio (6 hours)	
ART 3393 & ART 4280	Photography II and Photography Studio (6 hours)	
ART 3110 & ART 4100	Life Drawing Studio and Advanced Drawing (3-9 hours)	
Select 3 hours upper-division Studio media electives from:		3
ART 3110	Life Drawing Studio	
ART 3213	Public and Installation Art	
ART 3223	Oil Painting II	
ART 3243	Jewelry And Metals II	
ART 3253	Ceramics II	
ART 3263	Sculpture II	
ART 3273	Printmaking II	
ART 3393	Photography II	
ART 3403	Illustration II	
ART 3413	Typography II	
ART 3423	Graphic Design II	
ART 3453	Motion Design I	
ART 3463	Interaction Design I	
ART 4053	Alternative Photography	
ART 4100	Advanced Drawing	
ART 4211	BFA Studio Capstone Exhibition	
ART 4213	BFA Studio Capstone	
ART 4220	Oil Painting Studio	
ART 4223	BA Studio Capstone	
ART 4240	Jewelry and Metals Studio	
ART 4250	Ceramics Studio	
ART 4260	Sculpture Studio	
ART 4270	Printmaking Studio	
ART 4280	Photography Studio	
ART 4420	Graphic Design Studio	
ART 4430	Illustration Studio	
ART 4450	Motion Design Studio	
ART 4460	Interaction Design Studio	
ART 4493	Portfolio Capstone	
ART 4800	Special Studies in Art	
ART 4820	Graphic Design Internship	
ART 4830	Apprenticeship	
ART 4900	Directed Study In Art	
Studio Capstone/Upper-division Art History		
ART 4211	BFA Studio Capstone Exhibition	1
ART 4213	BFA Studio Capstone	3
ART 4613	Art Since 1960	3
Hours Subtotal		**67**
Electives		
Select 3 hours		3
May need to include 6 hours of a foreign language (see note 3)		

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 3 additional upper-division hours	
Hours Subtotal	**3**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ART 1103	Drawing I	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1503	Art History Survey to 1400 (H)	3
College and General Education courses		6
	Hours	**15**
Spring		
ART 1113	Drawing II	3

ART 1513	Art History Survey Since 1400 (H)	3
ART 1303	Visual Thinking: Form and Space	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
ART 2113	Life Drawing	3
ART 2223 or ART 2233 or ART 2273 or ART 2283 or ART 2293	Oil Painting I or Watercolor I or Printmaking I or Studio Art Digital Survey or Photography I	3
ART 2243 or ART 2253 or ART 2263	Jewelry and Metals I or Ceramics I or Sculpture I	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
ART 2003	Studio Methods and Preparation	3
ART 2233 or ART 2233 or ART 2273 or ART 2283 or ART 2293	Watercolor I or Watercolor I or Printmaking I or Studio Art Digital Survey or Photography I	3
ART 2253 or ART 2253 or ART 2263	Ceramics I or Ceramics I or Sculpture I	3
Major, College, and Elective courses		6
	Hours	**15**
Junior		
Fall		
3 hours Upper-division course in Primary Media Focus		3
College and Elective courses		12
	Hours	**15**
Spring		
3 hours Upper-division course in Primary Media Focus		3
3 hours Upper-division course in Secondary Media Focus		3
College and Elective courses		9
	Hours	**15**
Senior		
Fall		
ART 3683	History of 20th Century Art (GH)	3
3 hours Upper-division course in Primary Media Focus		3
3 hours Upper-division course in Secondary Media Focus		3
ART 4213	BFA Studio Capstone	3
College and Elective courses		3
	Hours	**15**
Spring		
3 hours Upper-division course in Primary Media Focus		3
3 hours Upper-division course in Secondary Media Focus		3
ART 4211	BFA Studio Capstone Exhibition	1
ART 4613	Art Since 1960	3
College and Elective courses		5
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Pre-Art Therapy (PART), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA: 2.75 with no grade below "C."
Total Hours: 30

Code	Title	Hours
Course Requirements		
Psychology		
PSYC 1113	Introductory Psychology (S)	3
PSYC 2583	Developmental Psychology (S)	3
PSYC 3443	Psychopathology (S)	3
Select three additional credit hours from the following:		3
PSYC 2443	Clinical Child Psychology	
PSYC 3053	Psychology of Art (S)	
PSYC 3073	Neurobiological Psychology (N)	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4243	Psychology of Aging	
PSYC 4283	Health Psychology	
Hours Subtotal		**12**
Art		
ART 1103	Drawing I	3
ART 1113	Drawing II	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1303	Visual Thinking: Form and Space	3
ART 2223	Oil Painting I	3
ART 2253	Ceramics I	3
Hours Subtotal		**18**
Total Hours		**30**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Studio Art (STDA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Grade Point Average in Minor Coursework: 2.5 with no grade below "C."
Total Hours: 21

Code	Title	Hours
Minor Requirements		
ART 1103	Drawing I	3
ART 1113	Drawing II	3
ART 1203	Visual Thinking: Image and Surface	3
ART 1303	Visual Thinking: Form and Space	3
9 hours chosen from any one area of concentration (General, Oil Painting, Watercolor, Jewelry/Metals, Ceramics, Sculpture, Printmaking or Photography).		9
General:		
ART 2113	Life Drawing	
ART 2223	Oil Painting I	
ART 2233	Watercolor I	
ART 2243	Jewelry and Metals I	
ART 2253	Ceramics I	
ART 2263	Sculpture I	
ART 2273	Printmaking I	
ART 2283	Studio Art Digital Survey	
ART 2293	Photography I	
Oil Painting:		
ART 2223 & ART 3223 & ART 4220	Oil Painting I and Oil Painting II and Oil Painting Studio	
Watercolor:		
ART 2233 & ART 3233 & ART 4230	Watercolor I and Watercolor II and Watercolor Studio	
Jewelry/Metals		
ART 2243 & ART 3243 & ART 4240	Jewelry and Metals I and Jewelry And Metals II and Jewelry and Metals Studio	
Ceramics:		
ART 2253 & ART 3253 & ART 4250	Ceramics I and Ceramics II and Ceramics Studio	
Sculpture:		
ART 2263 & ART 3263 & ART 4260	Sculpture I and Sculpture II and Sculpture Studio	
Printmaking:		
ART 2273 & ART 3273 & ART 4270	Printmaking I and Printmaking II and Printmaking Studio	
Photography:		
ART 2293 & ART 3393 & ART 4280	Photography I and Photography II and Photography Studio	
Beyond the 21 hours required to minor, it is highly recommended that Studio Minors take an Art History course to fulfill 3 hours credit of their Humanities (H) requirements.		
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Biology

The Department of Biology offers BS degree programs in biology, physiology, plant biology, and zoology.

The undergraduate degree in biology is appropriate for students wanting to obtain a broad background in the life sciences. Students complete coursework in animal, plant and microbial biology, genetics, ecology, physiology, and evolution. This degree meets the requirements for admission to graduate and professional schools and also prepares students for a broad range of biology-related employment opportunities. Students can also select an option in allied health, environmental biology, pre-medical sciences, or secondary teacher certification.

The undergraduate degree in physiology offers specialized coursework as preparation for graduate school or a medically-related professional school. The bachelor's degree in physiology requires courses in biology, genetics, microbiology, comparative anatomy, biochemistry, physics, and chemistry. The mammalian physiology lecture and lab sequence provides a unique capstone experience. Students can also select an option in pre-medical sciences.

The undergraduate degree in plant biology gives students training in all aspects of plant biology, including cell and molecular biology, genetics, development, physiology, ecology, evolution, and systematics. The study of plant biology underlies the applied sciences such as agronomy, forestry, natural resource management, horticulture and plant pathology. Students completing this degree are prepared for continuing studies in graduate school and careers in health sciences and industry. Students can select an option in cell biology and molecular genetics, ecology and evolutionary biology, pre-forensics, pre-law environmental policy, or pre-pharmacy.

The undergraduate degree in zoology provides a thorough background in the biology of animals and prepares students for graduate school and many applied and professional careers, including veterinary medicine. The zoology degree requires courses in ecology, evolution, genetics, and vertebrate and invertebrate zoology. Students participate in unique research experiences and/or internships and develop a broad foundation in the related fields of chemistry, physics, and mathematics. Students can also select an option in ecology and conservation biology, pre-medical sciences, pre-veterinary science, or secondary teacher certification.

Courses

BIOL 1111 Introductory Biology Laboratory (LN)
Prerequisites: BIOL 1113 or concurrent.
Description: Provides students with authentic research experiences in which they design, conduct, and report on the results of extended investigations over topics introduced in BIOL 1113. Recommended for science and non-science majors.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

BIOL 1113 Introductory Biology (N)
Description: Introduction to the integration between structure and function among all levels of biological organization. Application of principles of evolution, genetics, physiology and ecology to understanding the integrated and interdependent nature of living systems through discussions emphasizing the process of science. Discussions include current issues, local research, observations, and investigations. Recommended for science and non-science majors. Concurrent enrollment in BIOL 1111 Introductory Biology Laboratory is highly recommended. May not be used for degree credit with BIOL 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 1114 Introductory Biology (LN)
Description: Introduction to the integration between structure and function among all levels of biological organization. Application of principles of evolution, genetics, physiology and ecology to understanding the integrated and interdependent nature of living systems through discussions emphasizing the process of science. Current issues and local research and observation and investigation in both lecture and lab. Recommended for non-science and science majors. Course previously offered as BISC 1114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

BIOL 1604 Animal Biology
Prerequisites: Completion of BIOL 1114 or BIOL 1113 and (BIOL 1111 or concurrent enrollment), or acceptable AP credit.
Description: Morphology, physiology, ecology, life histories and importance of representatives of major groups to humans. Evolution of systems and mechanisms which have allowed animals to survive and adapt to diverse habitats. Previously offered as ZOOL 1604.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 2003 Biology for the Informed Citizen (N)
Description: This course teaches students how to find reliable answers to biological questions and arrive at informed decisions in their everyday lives. The course will use current issues (e.g., cancer, pollution) to convey fundamental biological concepts. Performance will be assessed via exams, and students will complete a small independent research project on a topic of their choice for a hands-on experience of the scientific process (study design to presentation). Brief lectures interspersed with short discussions or documentaries encompass a typical class meeting. Not an alternative to Intro Biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 2890 Honors Experience in Integrative Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL course.
Description: A supplemental Honors experience in Integrative Biology to partner concurrently with designated BIOL course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 3023 General Genetics
Prerequisites: "C" or better in CHEM 3013 or CHEM 3053 or MICR 2123 or MICR 3033 or PBIO 2403.
Description: Inheritance in plants, animals, and microorganisms; molecular and classical aspects. Previously offered as BIOL 3024 and BISC 3024.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3034 General Ecology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent and (PBIO 1404 or BIOL 1604 or equivalent) and MATH 1513 or higher.
Description: An overview of the study of organisms interacting with each other and their environment at individual, population, community, and ecosystem levels of organization. Includes human interaction with ecological systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3053 Freshwater: Concepts, Threats and Management (N)
Description: Freshwater is a critical, non-substitutable resource. Do we have enough? How are we going to manage it? This course will introduce non-biology majors to the concepts, threats, and policy relevant to freshwaters using information published in the popular science press. Issues directly relevant to Oklahoma, and the U.S. will be discussed. Debates modeled using the legal system of policy formulation will promote critical thought and communication skills in an exciting real-world milieu. ZOOL and PHSL majors may count as elective hours only. Previously offered as ZOOL 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3104 Invertebrate Zoology
Prerequisites: BIOL 1604.
Description: Morphology, physiology, reproduction and ecology of major invertebrate groups. Previously offered as ZOOL 3104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3113 Human Evolution (N)
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) strongly recommended.
Description: Overview of how evolution shapes human biology. Topics include evolutionary mechanisms, human genetic variation and health, primate diversity, the fossil record, and the origins, dispersal, and behavior of anatomically modern humans. ZOOL and PHSL majors may count as elective hours only. Previously offered as ZOOL 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3114 Vertebrate Zoology
Prerequisites: BIOL 1604.
Description: Comparative morphology of representative vertebrates with emphasis on phylogeny and ontogeny and consideration of histology and function. Previously offered as ZOOL 3114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3123 Human Heredity (N)
Description: The impact of genetics on human endeavor. Not recommended for students with prior credit in BIOL 3023. BIO, PHSL and ZOOL majors may count as elective hours only. Previously offered as ZOOL 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOL 3153 Animal Behavior
Prerequisites: Junior standing.
Description: Survey of theory and application in basic and applied animal behavior. Interdisciplinary analysis of animal behavior in the field, captive settings and laboratories. Previously offered as ZOOL 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3163 Environmental Biology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and (CHEM 1215 or CHEM 1314).
Description: Overview of how organisms are influenced by the environment in which they live and how anthropogenic activities impact their environment. Topics include impacts of disturbing energy and material cycles, toxicological disease, and infectious disease. Previously offered as ZOOL 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3204 Physiology
Prerequisites: "C" or better in both BIOL 1114 or (BIOL 1113 and BIOL 1111) and (CHEM 1215 or CHEM 1314 or CHEM 1414).
Description: Anatomy and function of the human body. Human and domestic animal physiology considered in laboratories. Previously offered as ZOOL 3204.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3214 Human Anatomy
Prerequisites: "C" or better in either BIOL 1604 or BIOL 3204.
Description: Gross anatomy of the human body and its systems with a minor emphasis on histology. Laboratory based on human models and comparisons with dissections of nonhuman mammals. Previously offered as ZOOL 3214.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 3233 Human Reproduction
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Overview of human reproduction, including conception, pregnancy, childbirth, sexual maturation, and parental investment in offspring. Draws from multiple fields such as genetics, anatomy and physiology, developmental biology and evolutionary theory. Previously offered as ZOOL 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3513 Principles of Conservation Biology
Prerequisites: Sophomore standing and BIOL 1604 or PBIO 1404.
Description: A scientific foundation of conservation biology through the study of the importance of conservation in society, the role of conservation policy, protected areas, and planning, and the future of conservation biology. Topics covered include Ecology, Evolution, and Genetics. Previously offered as ZOOL 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3604 Biological Principles for Teachers
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and BIOL 3204 and CHEM 1314.
Description: Capstone course in biology for potential science teachers. Review of biological phenomena and principles as related to the curriculum. Course previously offered as BISC 3604.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 3700 Readings and Special Studies in Integrative Biology
Prerequisites: BIOL 1604 and consent of instructor.
Description: Discussion of selected readings. Previously offered as ZOOL 3700. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

BIOL 3890 Advanced Honors Experience in Integrative Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL course.
Description: A supplemental Honors experience in Integrative Biology to partner concurrently with designated upper-division BIOL course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 3933 Research Methods
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and (MATH 1613 or higher) and (STAT 2013 or STAT 4013).
Description: Students perform independent inquiries and learn to use skills from science to solve research problems. Students will design experiments, collect and analyze data, formulate hypotheses, justify conclusions, create models, read and evaluate the research literature, and write and present research reports.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4024 Histology
Prerequisites: BIOL 3114, BIOL 3204, or BIOL 3214.
Description: The study of cellular composition and functional components of tissues. With an emphasis in vertebrates, the course is a survey of the microanatomy and function of tissues such as epithelial, connective, muscular, and nervous. May not be used for degree credit with BIOL 5024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4073 Principles of Neuroscience
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and either (CHEM 1215, CHEM 1314, or CHEM 1414).
Description: Neuroscience is an interdisciplinary field focused on understanding the structure and function of the brain, spinal cord, and peripheral nervous system. Course examines theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions. Previous coursework in physiology recommended. Same course as PSYC 4073. May not be used for degree credit with BIOL 5073 or PSYC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4104 General Parasitology
Prerequisites: BIOL 1604.
Description: Fundamentals of parasitism with emphasis on: life cycles, disease conditions, epidemiology, diagnosis, treatment, historical significance, terminology, taxonomy, and parasitological techniques. Previously offered as ZOOL 4104. May not be used for degree credit with BIOL 5104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4113 Conservation Genetics
Prerequisites: (BIOL 3023 or equivalent) and MATH 1513.
Description: Principles of population genetics as they pertain to issues in conservation biology. Evolutionary relationships, hybridization, natural selection, factors affecting small populations, gene flow, captive populations, and metapopulations. No credit for students with credit in BIOL 5113. Previously offered as ZOOL 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4133 Evolution
Prerequisites: BIOL 3023.
Description: Development of the evolutionary concept; speciation evolutionary mechanisms and phylogenetic concepts. May not be used for degree credit with BIOL 5033. Previously offered as ZOOL 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4134 Embryology
Prerequisites: BIOL 1604 and CHEM 1515.
Description: Biochemical basis of development with emphasis on gene regulation. Comparative development of sea urchin, frog, chick and pig. Experiments using frog and mouse, including the molecular level. Previously offered as ZOOL 4134. May not be used for degree credit with BIOL 5134.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4174 Mammalogy
Prerequisites: "C" or better in BIOL 1604 and (BIOL 3034 or NREM 3013).
Description: Taxonomy, identification, evolution, zoogeography, life history traits, and techniques of study of wild mammals. Weekend field trips required. May not be used for degree credit with BIOL 5174. Previously offered as ZOOL 4174.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $5 applies.

BIOL 4184 Herpetology
Prerequisites: BIOL 1604.
Description: The biology of amphibians and reptiles with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on Oklahoma species. Offered spring semester of even-numbered years. Weekend field trips required. May not be used for degree credit with BIOL 5184.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $125 applies.

BIOL 4215 Mammalian Physiology
Prerequisites: "C" or better in both BIOL 3204 and (CHEM 3013 or CHEM 3053).
Description: Descriptive and functional analysis of the mammalian nervous, cardiovascular, musculoskeletal, respiratory, renal, endocrine, and digestive organ systems. For majors in human and animal sciences, particularly pre-medical, pre-dental, and pre-veterinary tracks. May not be used for degree credit with BIOL 5215. Previously offered as ZOOL 4215.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4223 Mammalian Physiology Capstone Laboratory
Prerequisites: "C" or better in BIOL 4215 or ZOOL 4215.
Description: Laboratory experiments that illustrate functions of organs, organ systems or mechanisms of whole body physiological control. A unique Capstone Experience for Physiology majors. Restricted to declared Physiology majors in the Department of Integrative Biology. Previously offered as ZOOL 4223.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4253 Pharmacology
Prerequisites: "C" or better in either BIOL 3204 or BIOL 4215; Biochemistry strongly suggested.
Description: Major drug classes based on their predominant use or principal activity in the body; basis for drug action; and modification of drugs and their action by physiological processes. May not be used for degree credit with BIOL 5253. Previously offered as ZOOL 4243 and BIOL 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4273 Environmental Physiology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: The study of animal adaptation and responses to natural environments. Topics include marine, shoreline, freshwater, and terrestrial habitats as well as anthropogenic problems specific to these habitats. No credit for students with credit in BIOL 5273. Previously offered as ZOOL 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4283 Endocrinology
Prerequisites: "C" or better in (BIOL 3204 or BIOL 4215) and credit in (CHEM 3013 or CHEM 3053 or consent of instructor).
Description: Examination of the hormonal control and regulation of physiological processes in vertebrates. Function of the hypothalamus, pituitary, adrenal, thyroid, pancreas, ovary and testes. May not be used for degree credit with BIOL 5283. Previously offered as ZOOL 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4293 Behavioral Neuroendocrinology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: Examination of the influences of nervous and endocrine systems on behavior, and vice-versa, in vertebrates, including humans. Historical roots and current techniques relating to topics, including male and female reproductive behavior patterns, sex differences in behavior and neuroendocrine causation. No credit for students with credit in BIOL 5293. Previously offered as ZOOL 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4303 Organismal Ecotoxicology
Prerequisites: Junior standing and BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent and (CHEM 1215 or CHEM 1314).
Description: Comparative study of the major groups of environmental contaminants (e.g. heavy metals, PCB's, insecticides) and an introduction to the basic theories, principles and techniques associated with the study of contaminant fate and effects on organisms. No credit for students with credit in BIOL 5303. Same course as BIOL 5303 and ITOX 5303. Previously offered as ZOOL 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4313 Animal Communication
Prerequisites: Junior standing.
Description: Mechanisms, function and evolution of animal communication systems. Emphasis on the function of sensory systems, signal production mechanisms, theories of signal design and optimal signaling strategies, and current research on signaling behavior and its evolution in wild animals. A course in animal behavior or evolution recommended. May not be used for degree credit with BIOL 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4333 Disease Ecology
Prerequisites: BIOL 1113 or BIOL 1114 and junior standing.
Description: Understanding the ecology and evolution of pathogens and host-parasite relationships. This course will cover topics from the evolution of virulence and antibiotic resistance to globalization, emerging infectious diseases, and the factors driving increased pandemic risk. May not be used for degree credit with BIOL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4363 Principles of Toxicology
Prerequisites: BIOL 3204 and (CHEM 1215 or CHEM 1314).
Description: Basic concepts in toxicology such as chemical partitioning, dose response, toxicokinetics, toxicodynamics, and bioavailability. It will focus on the molecular and cellular mechanisms of toxicity of a few representative natural and man-made compounds. Case studies used to understand real-life scenarios. No credit for students with credit in BIOL 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

BIOL 4413 Biology of Fishes
Prerequisites: BIOL 1604.
Description: Ecology and evolution of fishes with particular emphasis on physiology, morphology, behavior, and taxonomy; laboratory emphasis on Oklahoma species. Weekend field trips required. May not be used for degree credit with BIOL 4413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $48 applies.

BIOL 4434 Limnology
Prerequisites: BIOL 3034 or (NREM 3012 and NREM 3013).
Description: This course provides an overview of the physical, chemical, and biological characteristics of inland habitats including lakes, reservoirs, streams, and wetlands. Field trips required. May not be used for degree credit with BIOL 5434. Previously offered as ZOOL 4434.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4464 Ornithology
Prerequisites: BIOL 1604.
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. Same course as NREM 4464. May not be used for degree credit with BIOL 5464 or NREM 5464. Previously offered as ZOOL 4464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4484 Animal Locomotion
Prerequisites: BIOL 1604.
Description: How do animals move? How does this motion change based on environment? How has such motion evolved across groups? This course will explore the relationship of body form to locomotion. We will focus on all types of animals, which represent a broad diversity of types of locomotion (e.g. flying, swimming, jumping), environments (e.g. air, land, water), and scales of body size (i.e. from single cells to whales). A laboratory will serve to introduce students to the methods and technology used in studying locomotion. May not be used for degree credit with BIOL 5484.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. No credit for students with credit in BIOL 5524, MICR 5524, PBIO 5524. Same course as PBIO 4524 and MICR 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 4700 Undergraduate Research Problems
Prerequisites: Consent of instructor.
Description: Participation in faculty research or execution of a problem formulated by the student. Project will include the communication of research results in written and/or oral form. Previously offered as ZOOL 4700. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4710 Internships in Integrative Biology
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Life Sciences related professional work setting. Graded on a pass-fail basis. Previously offered as ZOOL 4710. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4730 Collaborative Research in Integrative Biology
Prerequisites: BIOL 1604.
Description: Small teams of students work closely with faculty to design, develop, implement, and present authentic research projects. Topics of research will vary each semester based on the research interests of faculty leading the course.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 4750 Honors Study in Integrative Biology
Prerequisites: Honors Program participation.
Description: Individual study in the development of biological concepts. Extensive reading, literature search and special experimentation. An individual problems course for the gifted student. Previously offered as ZOOL 4750. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biology
General Education and other Course Attributes: Honors Credit

BIOL 5000 Research for Master's Thesis
Description: Independent research for the MS Thesis under the supervision of graduate faculty member. Previously offered as ZOOL 5000. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5003 Graduate Orientation and Academic Development
Prerequisites: Admission to Integrative Biology graduate program or instructor approval.
Description: Prepare first year Integrative Biology graduate students for success. We address departmental expectations and standards by providing: an introduction to departmental expertise and capabilities, exposure to available tools and resources, a forum for research conceptualization and formulation, instruction on finding and securing funding, guidance on how to convert questions into grant proposals, and a milieu for preparation, submission and peer review of external grant/fellowships. Previously offered as ZOOL 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5010 Graduate Seminar
Description: Discussion of selected topics. Previously offered as ZOOL 5010. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5011 Current, Historical, and Integrative Principles in Integrative Biology
Prerequisites: Admission to Integrative Biology graduate program or instructor approval.
Description: This course will furnish fundamental concepts in ecology, evolution, and environmental stress for first-year graduate students in Integrative Biology (and related departments). More importantly, this course is organized as modules that bring together various elements from the three broadly defined, and fundamentally related disciplines (i.e., ecology, evolution, and environmental stress), that our department views as our core strengths. Previously offered as ZOOL 5011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5020 Special Problems
Prerequisites: Graduate standing and consent of instructor.
Description: Discussions of selected readings and topics. Previously offered as ZOOL 5020. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5024 Histology
Prerequisites: Consent of Instructor.
Description: The study of cellular composition and functional components of tissues. With an emphasis in vertebrates, the course is a survey of the microanatomy and function of tissues such as epithelial, connective, muscular, and nervous. May not be used for degree credit with BIOL 4024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5030 Teaching Integrative Biology
Prerequisites: Consent of instructor.
Description: Supervised teaching in the department. Attendance at seminar on problems involved in teaching Integrative Biology in college. Previously offered as ZOOL 5030. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Biology

BIOL 5033 Evolution
Description: Development of the evolutionary concept; speciation evolutionary mechanisms and phylogenetic concepts. May not be used for degree credit with BIOL 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5073 Principles of Neuroscience
Description: This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as PSYC 5073 and BIOM 5983. May not be used for degree credit with BIOL 4073 or PSYC 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5100 Current Topics in Biology for Teachers
Prerequisites: Approval of instructor.
Description: Acquaints the primary or secondary teacher with recent advances in biology. May include lecture, laboratory or field work. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5104 General Parasitology
Prerequisites: BIOL 1604.
Description: Fundamentals of parasitism with emphasis on: life cycles, disease conditions, epidemiology, diagnosis, treatment, historical significance, terminology, taxonomy, and parasitological techniques. May not be used for degree credit with BIOL 4104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5113 Conservation Genetics
Prerequisites: Course in genetics strongly recommended.
Description: Principles of population genetics as they pertain to issues in conservation biology. Evolutionary relationships, hybridization, natural selection, factors affecting small populations, gene flow, captive populations, and META populations. No credit for students with credit in BIOL 4113. Previously offered as ZOOL 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5123 Behavioral Ecology
Prerequisites: Course in ecology strongly recommended.
Description: Analysis and description of the behavior of animals in their natural environment, especially in terms of natural selection and adaptation. A synthesis of ethology, population genetics, sociobiology, and evolutionary theory. Largely descriptive and generalized with limited emphasis on mathematical theory. Previously offered as ZOOL 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5133 Evolutionary Ecology
Description: This course is intended to inform students about the traditional breadth of evolutionary ecology, and its impacts on contemporary ecological and evolutionary theories. Study will include both broad historical precedent and the far-reaching importance of current research in evolutionary ecology. This course will develop skills in written and oral communication and critical/synthetic thought. Previously offered as ZOOL 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5134 Embryology
Prerequisites: BIOL 1604 and CHEM 1515.
Description: Biochemical basis of development with emphasis on gene regulation. Comparative development of sea urchin, frog, chick and pig. Experiments using frog and mouse, including the molecular level. May not be used for degree credit with BIOL 4134.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5174 Mammalogy
Prerequisites: College level ecology or Natural History course.
Description: Taxonomy, identification, evolution, zoogeography, life history traits, and techniques of study of wild mammals. Weekend field trips required. May not be used for degree credit with BIOL 4174.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5184 Advanced Herpetology
Description: The biology of amphibians and reptiles with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on Oklahoma species. Offered spring semester of even-numbered years. Weekend field trips required. May not be used for degree credit with BIOL 4184.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: BIOL Course Field Trip fee of $125 applies.

BIOL 5215 Mammalian Physiology
Description: Descriptive and functional analysis of the mammalian nervous, cardiovascular, musculoskeletal, respiratory, renal, endocrine and digestive organ systems. For majors in human and animal sciences, particular pre-medical, pre-dental, and pre-veterinary tracks. Upper-division physiology course required. May not be used for degree credit with BIOL 4215. Previously offered as ZOOL 4215.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5243 Ecological Immunology
Description: The causes and consequences of variation in immunity studied within the context of evolution and ecology. A combination of lectures and student-led presentations intended for graduate students and advanced undergraduates. Previously offered as ZOOL 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5253 Pharmacology
Description: Major drug classes based on their predominant use or principal activity in the body; basis for drug action; and modification of drugs and their action by physiological processes. Upper-division Physiology and Organic Chemistry required. May not be used for degree credit with BIOL 4243 or BIOL 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5273 Environmental Physiology
Prerequisites: BIOL 3204 or BIOL 4215 or equivalent.
Description: The study of animal adaptation and responses to natural freshwater, and terrestrial habitats as well as anthropogenic problems specific to these habitats. No credit for students with credit in BIOL 4273. Previously offered as ZOOL 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5283 Endocrinology
Prerequisites: A course in physiology and chemistry or consent of instructor.
Description: Examination of the hormonal control and regulation of physiological processes in vertebrates. Function of the hypothalamus, pituitary, adrenal, thyroid, pancreas, ovary and testes. No credit for students with credit in BIOL 4283. Previously offered as ZOOL 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5293 Behavioral Neuroendocrinology
Prerequisites: BIOL 3204 or BIOL 4215.
Description: Examination of the influences of nervous and endocrine systems on behavior and vice-versa, in vertebrates including humans. Historical roots and current techniques relating to topics, including male and female reproductive behavior patterns, sex differences in behavior and neuroendocrine causation. No credit for students with credit in BIOL 4293. Previously offered as ZOOL 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5303 Organismal Ecotoxicology
Description: Comparative study of the major groups of environmental contaminants (e.g. heavy metals, PCB's, insecticides) and an introduction to the basic theories, principles and techniques associated with the study of contaminant fate and effects on organisms. No credit for students with credit in BIOL 4303. Same course as ITOX 5303. Previously offered as ZOOL 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5313 Animal Communication
Prerequisites: Graduate standing.
Description: Mechanisms, function and evolution of animal communication systems. Emphasis on the function of sensory systems, signal production mechanisms, theories of signal design and optimal signaling strategies, and current research on signaling behavior and its evolution in wild animals. A course in animal behavior or evolution recommended. May not be used for degree credit with BIOL 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5333 Disease Ecology
Description: Understanding the ecology and evolution of pathogens and host-parasite relationships. This course will cover topics from the evolution of virulence and antibiotic resistance to globalization, emerging infectious diseases, and the factors driving increased pandemic risk. A class in Introductory Biology recommended. May not be used for degree credit with BIOL 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5343 Population and Community Ecotoxicology
Prerequisites: Course in ecology strongly recommended.
Description: Examines the exposure of animals to environmental contaminants and resulting effects at the individual through community level. The dynamic nature of exposure to contaminants will be of particular interest in this course. For example, how do the natural history traits of a species either protect it from exposure, or enhance its potential for exposure to contaminants? Topics will range from the historical perspectives to ecotoxicology to study design and risk assessment. Same course as ITOX 5343. Previously offered as ZOOL 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5363 Principles of Toxicology
Prerequisites: Course in chemistry and physiology strongly recommended.
Description: Basic concepts in toxicology such as chemical partitioning, dose response, toxicokinetics, toxicodynamics, and bioavailability. It will focus on the molecular and cellular mechanisms of toxicity of a few representative natural and man-made compounds. Case studies used to understand real-life scenarios. No credit for students with credit in BIOL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5403 Advanced Wetland Ecology
Prerequisites: A course in aquatic ecology or wetland management recommended.
Description: Principles and theory of wetland ecology with a focus on wetland processes, function, and services. Topics include wetland geomorphology, biogeochemistry and hydrology of wetlands, wetland functions and services, wetland development, wetland restoration, water issues, wetland policy, philosophy of wetland management, and educating society about wetlands. Same course as NREM 5403. Previously offered as ZOOL 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5413 Biology of Fishes
Description: Ecology and evolution of fishes with particular emphasis on physiology, morphology, behavior, and taxonomy; laboratory emphasis on Oklahoma species. Weekend field trips required. Previously offered as ZOOL 4413. May not be used for degree credit with BIOL 4413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5423 Techniques in Environmental Toxicology
Prerequisites: Organic chemistry or instructor consent.
Description: Practical understanding of modern techniques used to quantify exposure and effects of environmental toxicants. Laboratory topics include gas chromatography, HPLC, atomic absorption spectroscopy, immunoassay, and toxicity testing. Same course as ITOX 5423. Previously offered as ZOOL 5423.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5434 Limnology
Description: This course provides an overview of the physical, chemical, and biological characteristics of inland habitats including lakes, reservoirs, streams, and wetlands. Field trips required. May not be used for degree credit with BIOL 4434.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5464 Ornithology
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. May not be used for degree credit with BIOL 4464, NREM 4464. Previously offered as NREM 5564.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5484 Animal Locomotion
Description: How do animals move? How does this motion change based on environment? How has such motion evolved across groups? This course will explore the relationship of body form to locomotion. We will focus on all types of animals, which represent a broad diversity of types of locomotion (e.g. flying, swimming, jumping), environments (e.g. air, land, water), and scales of body size (i.e. from single cells to whales). A laboratory will serve to introduce students to the methods and technology used in studying locomotion. May not be used for degree credit with BIOL 4484.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

BIOL 5503 Spatial Ecology and Analysis
Prerequisites: Course in ecology strongly recommended.
Description: Theory, methods, and models for identifying and quantifying spatial patterns and processes, with a focus on implications for ecological relationships. Previously offered as ZOOL 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5523 Population Ecology
Prerequisites: BIOL 3034 and MATH 1513.
Description: Theory and principles of predicting and analyzing population abundance and dynamics. Life history theory, foraging theory, habitat selection, population genetics, and species interactions. Previously offered as ZOOL 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. May not be used for degree credit in BIOL 4524, MICR 4524, PBIO 4524. Same course as PBIO 5524 and MICR 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
Additional Fees: Biology Consummable Material fee of $50 applies.

BIOL 5623 Ecological Data and Alternative Hypothesis
Prerequisites: Course in statistics strongly recommended.
Description: Emphasizes statistical analyses that start with a set of plausible alternative hypotheses and use likelihoods to quantify the relative support the hypotheses receive from empirical data. Instruction will be done with lectures, computer lab exercises, and in-class presentations. Previously offered as ZOOL 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5633 Ecological and Behavioral Modeling
Prerequisites: Course in ecology strongly recommended.
Description: This course will provide a general overview of modeling approaches for studying a variety of ecological and environmental problems. It will provide students with a toolbox of techniques, and discuss how they can be used to address questions and generate testable predictions. The course will emphasize modeling individual behavior and population dynamics. Previously offered as ZOOL 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 5643 Ecological Niche Modeling and Species Distributions
Prerequisites: Course in ecology strongly recommended.
Description: Ecological niche modeling theory and practice. Generation of niche models and distribution predictions to address questions on species' ecology, conservation, biogeography, and phylogeography. Familiarization with ESRI ArcGIS software, as well as environmental GIS data sources. Previously offered as ZOOL 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

BIOL 6000 Research for PhD Dissertation
Description: Independent research for the PhD dissertation under the supervision of a graduate faculty member. Previously offered as ZOOL 6000. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Biology

PBIO 1052 How Plants Shaped Our World (LN)
Description: Experience the connections between plants and everything in our world - from food and clothing to history and art. Learn why the first physicians were botanists. See how the search for black pepper led to the discovery of a new world and to masterpieces by Dutch painters. Discover how plants work by growing and experimenting with them.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PBIO 1404 Plant Biology (LN)
Description: Basic concepts in the biology of plants from the perspective of structure and function, ecology and evolution, and diversity. Students gain experience with the process of science by proposing hypotheses, designing and conducting experiments and interpreting data. Previously offered as BOT 1404, BIOL 1404, BIOL 1403, and BISC 1403.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PBIO 2110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 2200 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Undergraduate research problems in plant biology. Graded on a pass/fail basis. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 2403 Introduction to Plant Molecular Biology
Prerequisites: CHEM 1314 with a "C" or better; and PBIO 1404 or (BIOL 1113 and BIOL 1111) or BIOL 1114
Description: Concepts, principles, and themes in plant molecular biology, including structures and functions of biomolecules, representative molecular reactions, and regulations of such reactions in everyday plant life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 2890 Honors Experience in Plant Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL or PBIO course.
Description: A supplemental Honors experience in Plant Biology to partner concurrently with designated upper-division BIOL or PBIO course(s). The course adds a different intellectual dimension to the designated course. Same course as PBIO 3890. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 3024 Plant Diversity
Prerequisites: BOT 1404 or equivalent.
Description: Forms and life histories of selected plants with emphasis on some of the less familiar forms. The diversity of plant forms as well as basic similarities in life histories; importance of each form to humans and their environment. Previously offered as BOT 3024.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 3114 Plant Taxonomy
Prerequisites: PBIO 1404 or equivalent.
Description: Survey of vascular plant families in a phylogenetic framework, and the morphological characters that define them. Principles and practice of plant classification theory and methods. Lab focuses on the identification of species that comprise the Oklahoma flora. Previously offered as BOT 3114.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3253 Environment and Society (N)
Prerequisites: At least one college level science course strongly recommended.
Description: The environmental impacts of human activities and population growth on the natural world, and possible solutions. Previously offered as BOT 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3263 Plants and People (N)
Description: Study of how plant use has changed the course of world history. This includes the uses of plants and plant products for food and beverages, shelter, fiber, and medicinal and pharmaceutical purposes. Previously offered as BOT 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3273 Medical Botany (N)
Description: Study of plants as a source of medicines, psychoactive compounds and poisons. These topics will be explored in the context of modern western medicine as well as traditional health systems and complementary alternative medicine. Previously offered as BOT 3273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Natural Science Reasoning

PBIO 3403 Hopeful Monsters: Laboratory Analysis of Plant Mutants
Prerequisites: PBIO 1404 or BIOL 1113.
Description: The course will focus on the analysis of selected mutants of the model plant Arabidopsis thaliana. The mutations affect different parts of the plant, including altered cell types, organ identity changes, malformed tissues and organs, unusual organ or seed sizes, and altered fertility. There are seven modules, each consisting of directed and independent analyses of mutations. Light microscopy will be the primary method for the analysis of the mutations.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3553 Fungi: Myths and More
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: This course explores fungal biology and its roles in the environment and impacts on the health and nutrition of plants, animals and humans. Topics include the ethnomycological and industrial uses of fungi in foods, fermentations, medicines, and intoxicants, and the colorful folklore and myths associated with these diverse, enigmatic organisms. Laboratory instruction includes microscopy, microbiological methods, mushroom cultivation, and identification of microfungi and wild mushrooms. Same course as PLP 3553. Previously offered as BOT 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 3890 Advanced Honors Experience in Plant Biology
Prerequisites: Honors Program participation and concurrent enrollment in a designated BIOL or PBIO course.
Description: A supplemental Honors experience in Plant Biology to partner concurrently with designated upper-division BIOL or PBIO course(s). The course adds a different intellectual dimension to the designated course. Same course as PBIO 2890. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 4005 Field Botany
Prerequisites: PBIO 1404 or equivalent.
Description: Botanical field techniques, the vegetation of North America, and the flora of Oklahoma. Terminology of description, use of taxonomic keys, techniques of specimen preservation, field recognition of plant taxa and communities and controlling ecological factors, economic and wildlife significance of dominant taxa, principles of classification and nomenclature. Three weekend field trips required. May not be used for degree credit with PBIO 5003. Previously offered as BOT 3005.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4013 Biological Microtechnique
Prerequisites: PBIO 1404 or BIOL 1604.
Description: Theories, principles, and methods related to the usage of the light microscope and to the preparation of biological materials for light microscopic examination. May not be used for degree credit with PBIO 5013. Previously offered as BOT 3013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4233 Plant Anatomy
Prerequisites: BOT 1404 or equivalent.
Description: Structures of cells, tissues and organs of plants and the developmental, phylogenetic, and functional contexts of the structures. May not be used for degree credit with PBIO 5233. Previously offered as BOT 3233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4400 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Undergraduate research problems in plant biology. Previously offered as BOT 4400. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4423 Plant Mineral Nutrition
Prerequisites: PBIO 4463 or concurrent enrollment.
Description: Uptake, translocation, metabolism, and biochemical function of mineral nutrients in higher plants. May not be used for degree credit with PBIO 5423. Previously offered as BOT 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 4462 Plant Physiology Laboratory
Prerequisites: PBIO 4463 or PBIO 5463 or concurrent enrollment.
Description: Skills in techniques for working with plants, experiments involving nutrition, respiration, photosynthesis, water relations, translocation, hormones, growth and development. Previously offered as BOT 3460 and BOT 3462.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Biology

PBIO 4463 Plant Physiology
Prerequisites: BOT 1404 or equivalent.
Description: Plant subcellular structure, water relations, water absorption and ascent of sap, translocation, gaseous exchange, nutrition, enzymes, respiration, photosynthesis, growth, development, reproduction, tropisms, hormones, dormancy and seed germination. May not be used for degree credit with PBIO 5463. Previously offered as BOT 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biology

PBIO 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and (BOT 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor).
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, microcontrollers, spectrophotometers, centrifuges, chromatography, thermacylers, and DNA sequencers. Same course as BIOL 4524, MICR 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4553 Molecular Phylogenectic Analysis
Prerequisites: Undergraduate genetics strongly recommended.
Description: Covers the use of molecular sequence data to construct evolutionary trees. It integrates theory and computer applications to answer questions involving species relationships, gene evolution, molecular evolution and morphological change, co-evolution, and biogeographic relationships. May not be used for degree credit with PBIO 5553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4654 Plant Secondary Metabolism
Prerequisites: PBIO 1404.
Description: This course describes the biochemical pathways and functions of plant secondary metabolites, and how they have been used for medical, pharmaceutical, and agricultural research and industry. Same course as PBIO 5654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 4800 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A research project under the direction of a faculty member resulting in a written report to be judged by a second faculty member as well. An oral presentation made at a departmental seminar. Required for graduation with departmental honors in plant biology. Previously offered as BOT 4993. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology
General Education and other Course Attributes: Honors Credit

PBIO 4910 Internship in Plant Biology
Prerequisites: Specified hours of documented plant biology work experience.
Description: Supervised experience in an approved work situation related to future career in the plant biology field. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 4990 Independent Study in Plant Biology
Prerequisites: Consent of instructor.
Description: Independent study under the supervision of a faculty member. This will include readings and discussion on a selected topic agreed upon between the student and instructor. Previously offered as BOT 4990. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biology

PBIO 5000 Master's Thesis
Description: Thesis work for the MS degree. Previously offered as BOT 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5003 Field Botany
Prerequisites: PBIO 1404 or equivalent.
Description: Botanical field techniques, the vegetation of North America, and the flora of Oklahoma. Terminology of description, use of taxonomic keys, techniques of specimen preservation, field recognition of plant taxa and communities and controlling ecological factors, economic and wildlife significance of dominant taxa, principles of classification and nomenclature. Three weekend field trips required. May not be used for degree credit with PBIO 4005.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5013 Biological Microtechnique
Prerequisites: PBIO 1404 or BIOL 1604.
Description: Theories, principles, and methods related to the usage of the light microscope and to the preparation of biological materials for light microscopic examination. May not be used for degree credit with PBIO 4013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5104 Mycology
Prerequisites: Graduate standing.
Description: A systematic study of the fungi, with emphasis on taxonomy, comparative morphology, and fungal biology. Same course as PLP 5104. Previously offered as BOT 5104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5110 Special Topics in Plant Biology
Prerequisites: Consent of instructor.
Description: Special studies in any area of plant biology. Previously offered as BOT 5110. Offered for variable credit, 1-5 credit hours, maximum of 24 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5210 Research in Plant Biology
Prerequisites: Consent of instructor.
Description: Independent research in any area of plant biology. Previously offered as BOT 5210. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5233 Plant Anatomy
Prerequisites: PBIO 1404.
Description: Structures of cells, tissues and organs of plants and the developmental, phylogenetic, and functional contexts of the structures. May not be used for degree credit with PBIO 4233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5423 Plant Mineral Nutrition
Prerequisites: BOT 4463 or concurrent enrollment.
Description: Uptake, translocation, metabolism, and biochemical function of mineral nutrients in higher plants. May not be used for degree credit with PBIO 4423. Previously offered as BOT 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5463 Plant Physiology
Prerequisites: PBIO 1404 or equivalent.
Description: Plant subcellular structure, water relations, water absorption and ascent of sap, translocation, gaseous exchange, nutrition, enzymes, respiration, photosynthesis, growth, development, reproduction, tropisms, hormones, dormancy and seed germination. Previously offered as BOT 3463. May not be used for degree credit with PBIO 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5524 Biological Instrumentation
Prerequisites: CHEM 1515 or equivalent and (BOT 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor).
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocylers, and DNA sequencers. Same course as BIOL 5524 and MICR 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5541 Phylogenomics
Description: Current topics in the theory and application of genome and transcriptome sequencing to phylogenetics, prediction of gene function, and evolution of genes. Previously offered as BOT 5541.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 5553 Molecular Phylogenectic Analysis
Prerequisites: Undergraduate genetics strongly recommended.
Description: Covers the use of molecular sequence data to construct evolutionary trees. It integrates theory and computer applications to answer questions involving species relationships, gene evolution, molecular evolution and morphological change, co-evolution, and biogeographic relationships. May not be used for degree credit with PBIO 4553. Previously offered as BOT 5553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5563 Plant Ecological Genetics
Prerequisites: Two of the following courses or their equivalent: BIOL 3023, BIOL 3034, and BIOL 4133.
Description: Basic concepts in plant population and quantitative genetics, focusing on techniques that reveal the genetic structure and the adaptive value of ecologically relevant traits. Previously offered as BOT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5654 Plant Secondary Metabolism
Prerequisites: PBIO 1404.
Description: This course describes the biochemical pathways and functions of plant secondary metabolites, and how they have been used for medical, pharmaceutical, and agricultural research and industry. Same course as PBIO 4654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biology

PBIO 5813 Plant Developmental Genetics
Prerequisites: BIOL 3023 or equivalent.
Description: Discussion of the genetic and molecular factors that regulate reproductive and vegetative development in flowering plants. Emphasis on recent publications that deal with model genetic systems and plants of economic significance. Previously offered as BOT 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5850 Plant Biology Seminar
Description: Weekly one-hour seminar series of invited and internal speakers. Plant Sciences MS and Plant Sciences (Plant Biology) PhD students are required to present a minimum of two seminars, including one on thesis or dissertation results. Previously offered as BOT 5850. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Biology

PBIO 5910 Internship in Plant Biology
Prerequisites: Specified hours of documented plant biology work experience.
Description: Supervised experience in an approved work situation related to future career in the plant biology field. Graded on a pass/fail basis. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

PBIO 6000 Doctoral Research
Description: Independent research for the doctoral dissertation. Previously offered as BOT 6000. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Discussion
Department/School: Biology

Undergraduate Programs

- Biology, BS (p. 1120)
- Biology: Allied Health, BS (p. 1123)
- Biology: Environmental Biology, BS (p. 1126)
- Biology: Pre-Medical Sciences, BS (p. 1129)
- Biology: Secondary Teacher Certification, BS (p. 1132)
- Physiology, BS (p. 1135)
- Physiology: Pre-Medical Sciences, BS (p. 1138)
- Plant Biology, BS (p. 1142)
- Plant Biology: Cell Biology and Molecular Genetics, BS (p. 1145)
- Plant Biology: Ecology and Evolutionary Biology, BS (p. 1148)
- Plant Biology: Pre-Forensics, BS (p. 1151)
- Plant Biology: Pre-Law Environmental Policy, BS (p. 1154)
- Plant Biology: Pre-Pharmacy, BS (p. 1157)
- Zoology, BS (p. 1161)
- Zoology: Ecology and Conservation Biology, BS (p. 1164)
- Zoology: Pre-Medical Sciences, BS (p. 1167)
- Zoology: Pre-Veterinary Sciences, BS (p. 1170)
- Zoology: Secondary Teacher Certification, BS (p. 1173)

Graduate Programs
Programs of Study

Programs of study leading to MS and PhD degrees are offered in the Department of Biology. Programs of research and study include degrees of Master of Science or Doctor of Philosophy in Integrative Biology or Plant Biology.

- Integrative Biology, MS (p. 3257)
- Plant Biology, MS (p. 3299)
- Integrative Biology, PhD (p. 3019)
- Plant Biology, PhD (p. 3040)

Minors

- Biology (BIO), Minor (p. 1119)
- Plant Biology (PLB), Minor (p. 1141)
- Zoology (ZOOL), Minor (p. 1160)

Faculty

Jason Belden, PhD—Professor and Department Head
Regents Professors: Mark Fishbein, PhD; Stanley Fox, PhD (emeritus); Scott McMurry, PhD; David W. Meinke, PhD (emeritus); Michael W. Palmer, PhD (emeritus); Loren Smith, PhD (emeritus); Ron Van DenBussche, PhD
Professors: Andrew Doust, PhD; Andrew Dzialowski, PhD; Donald French, PhD (emeritus); Keith Garbutt, PhD; Jennifer Grindstaff, PhD; William J. Henley (emeritus); Punidan Jeyasingh, PhD; Barney Luttbeg, PhD; Ronald J. Tyrl, PhD (emeritus); Bruce Waldman, PhD; Linda Watson, PhD (emerita); Shawn Wilder, PhD; Ming Yang, PhD
Associate Professors: Matthew Bolek, PhD; Meredith Hamilton, PhD (emeritus); Matthew Lovern, Elizabeth McCullagh, PhD; PhD; Matteo Minghetti, PhD; Michael Reichert, PhD; Patrick Stephens, PhD; Mary Towner, PhD
Assistant Professors: Bénédicte Bachelot, PhD; Desiré Buckley, PhD; Elisa Casadei, Antonio Castilla, PhD; PhD; Zachary Emberts, PhD; Fabio de Andrade Machado, PhD; Neil Gilbert, PhD; Cody Coyotee Howard, PhD; Ciaràn Shaughnessy, PhD; Erin Wiley, PhD; Guin Wogan, PhD; Bo Zhang, PhD
Teaching Associate Professor: Lane Greer, PhD
Teaching Assistant Professors: Uriel Buitrago-Suarez, PhD; Nicole Parker, PhD; Jodie Wiggins, PhD; Will Wiggins, PhD

Biology (BIO), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 27

Code	Title	Hours
Minor Requirements		
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) and Introductory Biology Laboratory (LN) Introductory Biology (LN)	4
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
Total Hours		**27**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements OR minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution [2]	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
Select 9 hours upper-division coursework from: BIOL, MICR, PBIO (excluding general education courses)		9
Related Courses		
Physiology, choose from:		4
BIOL 3204	Physiology (or)	
PBIO 4463 & PBIO 4462	Plant Physiology and Plant Physiology Laboratory	
Organic Chemistry, choose from:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Supplemental Courses		
Select 9 hours upper-division coursework from at least 2 different prefixes from the following (no more than 3 hours of general education in the natural sciences):		9
ANSI 3543	Principles of Animal Nutrition	
ENGL 3323	Technical Writing	
HDFS 4813	Dying, Death and Bereavement	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3603	Understanding HIV (DS)	
HLTH 3613	Community Health	
HLTH 3723	Principles of Epidemiology	

HIST 3913	History of Medicine (H)
HHP 4064	Neuroanatomy
PHIL 3733	Environmental Ethics (H)
PHIL 3833	Biomedical Ethics (H)
PHIL 4713	Philosophy of Science (H)
PHIL 4733	Philosophy of Biology (H)
POLS 4363	Environmental Law And Policy
PSYC 3073	Neurobiological Psychology (N)
PSYC 3443	Psychopathology (S)
PSYC 4263	Affective Neuroscience
SOC 4153	Sociology of Health and Illness
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
SOC 4493	Sociology of Environmental Hazards and Disasters
Or from BIOC, CHEM, ENTO, ENVR, GEOG, GEOL, HORT, MATH, NREM, PHYS, PLNT, PLP, SOIL, and STAT	
Hours Subtotal	**57**
Electives [2]	
Select 9 hours	9
MATH 1513 required for students who do not place directly into MATH 1813.	
May need to include 6 hours of a foreign language (see note 3).	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours.	
Hours Subtotal	**9**
Total Hours	**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
General Education courses		7
	Hours	**15**
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		7
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education courses		5
	Hours	**15**
Spring		
BIOL 3034	General Ecology	4
PBIO 1404	Plant Biology (LN)	4
MICR 3033	Cell and Molecular Biology	3
Major or Elective courses		4
	Hours	**15**
Junior		
Fall		
CHEM 3053 or CHEM 3013 ***and*** CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry ***and*** Survey of Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		6
	Hours	**15**
Spring		
BIOL 3204 or PBIO 4462 ***and*** PBIO 4463	Physiology or Plant Physiology Laboratory ***and*** Plant Physiology	4
PHYS 1214 or CHEM 3153 ***and*** CHEM 3112	College Physics II (LN) or Organic Chemistry II ***and*** Organic Chemistry Laboratory	4
General Education or Supplemental courses		7
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
PHYS 1214	College Physics II (LN) (If taking CHEM 3153 and CHEM 3112)	4
General Education, Major, or Supplemental courses		8
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		12
	Hours	**15**
	Total Hours	**120**

Biology: Allied Health, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements OR minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution [2]	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
Select 6 hours upper-division coursework from: BIOL, MICR, PBIO (excluding general education courses).		6
Related Courses		
BIOL 3204	Physiology	4
BIOL 3214	Human Anatomy	4
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	5
Supplemental Courses		
Select three of the following from at least 2 different prefixes:		9
BIOC 3653	Survey of Biochemistry	
BIOC 3713	Biochemistry I	
BIOL 3233	Human Reproduction	
BIOL 4073	Principles of Neuroscience	
BIOL 4134	Embryology	
BIOL 4253	Pharmacology	
BIOL 4283	Endocrinology	
BIOL 4333	Disease Ecology	
BIOL 4363	Principles of Toxicology	
BIOL 4524	Biological Laboratory Instrumentation	
ENGL 3323	Technical Writing	
GEOG 3373	Health and Maps	
HDFS 4813	Dying, Death and Bereavement	
HLTH 3113	Health Issues in Diverse Populations (D)	

HLTH 3603	Understanding HIV (DS)	
HLTH 3613	Community Health	
HLTH 3723	Principles of Epidemiology	
HHP 3114	Physiology of Exercise	
HHP 4064	Neuroanatomy	
HIST 3913	History of Medicine (H)	
MICR 3223	Advanced Microbiology	
MICR 3253	Immunology	
MICR 3553	Foundations of Cancer	
MICR 4053	Pathogenic Microbiology	
NSCI 4123	Human Nutrition and Metabolism I	
NSCI 4143	Human Nutrition and Metabolism II	
PBIO 4013	Biological Microtechnique	
PHIL 3833	Biomedical Ethics (H)	
PSYC 3443	Psychopathology (S)	
PSYC 4263	Affective Neuroscience	
SOC 4153	Sociology of Health and Illness	
Hours Subtotal		**58**
Electives [2]		
Select 8 hours		8
MATH 1513 required for students who do not place directly into MATH 1813.		
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 6 additional upper-division hours.		
PSYC 1113 Recommended.		
Hours Subtotal		**8**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Additional requirements for professional school admission exist. View Admission Requirement Sheets at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer

of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
CHEM 1314	Chemistry I (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
UNIV 2511	Introduction to Health Careers (Suggested)	1
General Education courses		6
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education or Elective courses		6
	Hours	**15**
Spring		
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	5
PBIO 1404	Plant Biology (LN)	4
Major or Elective courses		6
	Hours	**15**
Junior		
Fall		
BIOL 3204	Physiology	4
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		4
	Hours	**15**
Spring		
BIOL 3214	Human Anatomy	4
PHYS 1214	College Physics II (LN)	4
General Education or Supplemental courses		7
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
General Education, Major, or Supplemental courses		8
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		12
	Hours	**15**
	Total Hours	**120**

Biology: Environmental Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements OR minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution [2]	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
Select 6 hours of upper-division coursework from: BIOL, MICR, PBIO (excluding general education courses)		6
Related Courses		
BIOL 3163	Environmental Biology	3
Physiology, choose from:		4
BIOL 3204	Physiology (or)	
PBIO 4462 & PBIO 4463	Plant Physiology Laboratory and Plant Physiology	
Organic Chemistry, choose from:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Supplemental Courses		
Select three of the following from at least 2 different prefixes.:		9
BIOL 3513	Principles of Conservation Biology	
BIOL 4333	Disease Ecology	
BIOL 4273	Environmental Physiology	
BIOL 4303	Organismal Ecotoxicology	
BIOL 4363	Principles of Toxicology	
BIOL 4434	Limnology	
ENGL 3323	Technical Writing	

ENVR 4033	Ecology of Invasive Species
GEOG 3023	Climatology (N)
GEOG 3153	Conservation of Natural Resources (S)
GEOG 3373	Health and Maps
GEOG 4053	Biogeography, Biodiversity, and Humankind
GEOG 4073	Climate Change: Past, Present, and Future
GEOG 4113	Environment and Development
GEOG 4233	Human Dimensions of Global Environmental Change
GEOG 4333	Remote Sensing
GEOL 3503	Environmental Geology (N)
GEOL 4453	Hydrogeology
GEOL 4503	Introduction to Oceanography (N)
NREM 3153	Forest Health and Disturbance Ecology
NREM 4023	Restoration Ecology
NREM 4033	Ecology Of Invasive Species
NREM 4043	Natural Resource Administration and Policy
NREM 4443	Watershed Hydrology and Water Quality
NREM 4523	Wildlife Management Techniques
PBIO 4005	Field Botany
PHIL 3733	Environmental Ethics (H)
POLS 4363	Environmental Law And Policy
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
SOC 4493	Sociology of Environmental Hazards and Disasters
Hours Subtotal	**57**
Electives [2]	
Select 9 hours	9
MATH 1513 required for students who do not place directly into MATH 1813.	
May need to include 6 hours of a foreign language. (see note 3.)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours.	
Hours Subtotal	**9**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
General Education courses		7
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
PBIO 1404	Plant Biology (LN)	4
General Education courses		7
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 1515	Chemistry II (LN)	5
General Education or Elective courses		6
	Hours	**15**
Spring		
CHEM 3053 or CHEM 3013 ***and*** CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry ***and*** Survey of Organic Chemistry Laboratory	5
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education or Elective courses		5
	Hours	**15**
Junior		
Fall		
BIOL 3034 or CHEM 3153 ***and*** CHEM 3112	General Ecology or Organic Chemistry II ***and*** Organic Chemistry Laboratory	4
BIOL 3163	Environmental Biology	3
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		1
	Hours	**15**
Spring		
BIOL 3204 or PBIO 4463 ***and*** PBIO 4462	Physiology or Plant Physiology ***and*** Plant Physiology Laboratory	4
PHYS 1214	College Physics II (LN)	4
Major or Supplemental courses		7
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology (If taking CHEM 3153 & CHEM 3112)	4
General Education, Major, or Supplemental courses		8
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		12
	Hours	**15**
	Total Hours	**120**

Biology: Pre-Medical Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Languages		
(See note 3.)		0
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements OR minimum grade of "C" in each course.		
Core Courses:		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution [2]	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
6 hours upper-division coursework from BIOL, MICR, PBIO (excluding general education courses)		6
Related Courses:		
BIOL 3204	Physiology	4
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
Choose two of the following:		6
BIOC 3653	Survey of Biochemistry	
BIOL 3233	Human Reproduction	
BIOL 4024	Histology	
BIOL 4073	Principles of Neuroscience	
BIOL 4104	General Parasitology	
BIOL 4134	Embryology	
BIOL 4253	Pharmacology	
BIOL 4273	Environmental Physiology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
BIOL 4333	Disease Ecology	
BIOL 4363	Principles of Toxicology	
Supplemental Courses:		
Select one course from the following:		3
ANSI 3543	Principles of Animal Nutrition	
ENGL 3323	Technical Writing	
HDFS 4813	Dying, Death and Bereavement	
HLTH 3113	Health Issues in Diverse Populations (D)	

HLTH 3603	Understanding HIV (DS)	
HLTH 3723	Principles of Epidemiology	
HHP 4063	Neuroanatomy	
HIST 3913	History of Medicine (H)	
PHIL 3833	Biomedical Ethics (H)	
PSYC 3443	Psychopathology (S)	
PSYC 3073	Neurobiological Psychology (N)	
PSYC 4263	Affective Neuroscience	
SOC 4153	Sociology of Health and Illness	
Or from BIOC, CHEM, ENVR, GEOG, GEOL, MATH, PHYS, and STAT		
Hours Subtotal		**57**
Electives		
Select 9 hours		9
MATH 1513 required for students who do not place directly into MATH 1813.		
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours.		
Hours Subtotal		**9**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
CHEM 1314	Chemistry I (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
UNIV 2511	Introduction to Health Careers (Suggested)	1
General Education courses		6
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
UNIV 2611	Health Portfolio and Self-Development (Suggested)	1
General Education or Elective courses		2
	Hours	**15**
Spring		
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
General Education or Elective courses		6
	Hours	**15**
Junior		
Fall		
BIOC 3653	Survey of Biochemistry	3
BIOL 3204	Physiology	4
PHYS 1214	College Physics II (LN)	4
Elective courses		4
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 1404	Plant Biology (LN)	4
UNIV 3511	Health Profession School Preparation (Suggested)	1
Major or Elective courses		7
	Hours	**15**
Senior		
Fall		
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		8
	Hours	**15**
Spring		
General Education, Major, or Supplemental courses		15
	Hours	**15**
	Total Hours	**120**

Biology: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1,2]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1,2]	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) [1,2]	4
CHEM 1515	Chemistry II (LN) [1,2]	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
PHIL 3933	Creation and Evolution	3
Natural & Mathematical Sciences		
PBIO 1404	Plant Biology (LN) [2]	4
PHYS 1114	College Physics I (LN) [2]	4
STAT 4013	Statistical Methods I (Q) [2]	3
or STAT 2013	Elementary Statistics (Q)	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
Biology Core:		
Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Biology Core and those denoted with [2]		
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
Select 3 hours PBIO coursework 3000- or 4000-level.		3
Secondary Education Professional Core:		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom [3]	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom [3]	6
Hours Subtotal		**61**
Electives		
Select 4 hours		4

MATH 1513 required for students who do not place directly into MATH 1813 (or MATH 1613).	
May need to include 3 hours of a foreign language (see note 3)	
Hours Subtotal	**4**
Total Hours	**120**

1.

College and Departmental Requirements that may be used to meet General Education Requirements.

2.

Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Biology Core and those denoted with this footnote.

3.

Full Admission to Professional Education required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1813	Preparation for Calculus (Q)	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
SMED 1012	Inquiry Approaches to Teaching	2
General Education Courses		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
CHEM 1314	Chemistry I (LN)	4
BIOL 1604	Animal Biology	4
General Education and College courses		4
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
PHIL 3933	Creation and Evolution	3
SPED 3202	Educating Exceptional Learners	2
General Education courses		3
	Hours	**17**
Spring		
PHYS 1114	College Physics I (LN)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
SMED 3013	Knowing and Learning in K-12 Education	3
General Education and College courses		3
	Hours	**15**
Junior		
Fall		
BIOL 3023	General Genetics	3
MICR 3033	Cell and Molecular Biology	3
CIED 3313	Field Experience in the Secondary Schools	3
PBIO coursework 3000- or 4000-level		3
General Education courses		3
	Hours	**15**
Spring		
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
General Education and College courses		3
	Hours	**17**
Senior		
Fall		
BIOL 3034	General Ecology	4
STAT 4013 or STAT 2013	Statistical Methods I (Q) or Elementary Statistics (Q)	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
General Education and College courses		3
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Physiology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements with a minimum grade of "C" in each course.		
Core Courses		
BIOC 3653	Survey of Biochemistry	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4215	Mammalian Physiology	5
BIOL 4223	Mammalian Physiology Capstone Laboratory	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
Related Courses		
Select two courses, including at least one BIOL, from the following:		6
ANSI 3543	Principles of Animal Nutrition	
BIOL 4024	Histology	
BIOL 4073	Principles of Neuroscience	
BIOL 4104	General Parasitology	
BIOL 4134	Embryology	
BIOL 4253	Pharmacology	
BIOL 4273	Environmental Physiology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
BIOL 4303	Organismal Ecotoxicology	
BIOL 4363	Principles of Toxicology	
HHP 4064	Neuroanatomy	
MICR 3223	Advanced Microbiology	

MICR 3143	Medical Mycology	
MICR 3253	Immunology	
MICR 3553	Foundations of Cancer	
MICR 4123	Virology	
MICR 4423	Antibiotics and Antibiotic Resistance	
Hours Subtotal		**59**
Electives [2]		
Select 6 hours		6
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 2 additional upper-division hours		
Hours Subtotal		**6**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
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   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
UNIV 2511	Introduction to Health Careers (Suggested)	1
General Education courses		5
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education or Elective courses		6
	Hours	**15**
Spring		
BIOL 3204	Physiology	4
CHEM 3053	Organic Chemistry I	3
MICR 3033	Cell and Molecular Biology	3
General Education or Elective courses		5
	Hours	**15**
Junior		
Fall		
BIOL 3114	Vertebrate Zoology	4
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	5
Major or Elective courses		6
	Hours	**15**
Spring		
BIOL 4215	Mammalian Physiology	5
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		6
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 4223	Mammalian Physiology Capstone Laboratory	3
PHYS 1214	College Physics II (LN)	4
Major or Elective courses		5
	Hours	**15**
Spring		
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
Major or General Education courses		8
	Hours	**15**
	Total Hours	**120**

Physiology: Pre-Medical Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum GPA 2.50 in Major Requirements with a minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3114	Vertebrate Zoology	4
or BIOL 3214	Human Anatomy	
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4215	Mammalian Physiology	5
BIOL 4223	Mammalian Physiology Capstone Laboratory	3
BIOC 3653	Survey of Biochemistry	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
Related Courses		
Select two courses, including at least one BIOL, from the following:		6
BIOL 4024	Histology	
BIOL 4073	Principles of Neuroscience	
BIOL 4104	General Parasitology	
BIOL 4134	Embryology	
BIOL 4253	Pharmacology	
BIOL 4273	Environmental Physiology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
BIOL 4363	Principles of Toxicology	
HHP 4064	Neuroanatomy	
MICR 3143	Medical Mycology	

MICR 3223	Advanced Microbiology	
MICR 3253	Immunology	
MICR 3553	Foundations of Cancer	
MICR 4123	Virology	
MICR 4423	Antibiotics and Antibiotic Resistance	
Hours Subtotal		**59**
Electives [2]		
Select 6 hours		6
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 2 additional upper-division hours		
Recommended courses:		
PSYC 1113	Introductory Psychology (S)	
SOC 1113	Introductory Sociology (S)	
Hours Subtotal		**6**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Additional requirements for professional school admission exist. View Admission Requirement Sheets at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
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   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
UNIV 2511	Introduction to Health Careers (Suggested)	1
General Education courses		5
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
UNIV 2611	Health Portfolio and Self-Development (Suggested)	1
General Education or Elective courses		2
	Hours	**15**
Spring		
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
General Education courses		6
	Hours	**15**
Junior		
Fall		
BIOC 3653	Survey of Biochemistry	3
BIOL 3204	Physiology	4
PHYS 1214	College Physics II (LN)	4
Major or Elective courses		4
	Hours	**15**
Spring		
BIOL 4215	Mammalian Physiology	5
MICR 3033	Cell and Molecular Biology	3
UNIV 3511	Health Profession School Preparation (Suggested)	1
Major or Elective courses		6
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 4223	Mammalian Physiology Capstone Laboratory	3
Major or General Education courses		9
	Hours	**15**
Spring		
BIOL 3034	General Ecology	4
BIOL 3214	Human Anatomy	4
BIOL 4133	Evolution	3
Major or General Education courses		4
	Hours	**15**
	Total Hours	**120**

Plant Biology (PLB), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Minor Coursework: 2.00 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Minor Requirements		
PBIO 1404	Plant Biology (LN)	4
Select 3-4 hours from the following:		3-4
BIOL 3023	General Genetics	
BIOL 3034	General Ecology	
BIOL 4133	Evolution	
Select 7-8 hours from PBIO 2403 or other upper-division PBIO courses to complete the required 15 hours		7-8
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Plant Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
MATH 1813	Preparation for Calculus (Q) (or higher)	3
or MATH 1613	Trigonometry (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
PHYS 1114	College Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Core Courses		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
PBIO 1404	Plant Biology (LN)	4
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 4400	Undergraduate Research	1
7 additional hours of PBIO courses		7
Select one of the following:		
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
or		
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Related Courses:		
Minimum of 15-18 hours of upper-division course work (no more than 3 hours of general education courses) from the following:		
BIOC; BIOL; CHEM, CS; ENTO; ENVR; GEOG; GEOL; HORT; MATH; MICR; NREM; PBIO; PHYS; PLNT; PLP; SOIL; or STAT		
Hours Subtotal		**48**
Electives		
Select 18 hours		18
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**18**
Total Hours		**120**

[1] College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO and BIOL courses.

- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1813	Preparation for Calculus (Q) (or higher)	3
PBIO 1404	Plant Biology (LN)	4
General Education or Elective courses		3
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education or Elective courses		4
	Hours	**15**

Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PHYS 1114	College Physics I (LN)	4
General Education, College, or Major courses		7
	Hours	**16**
Spring		
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry or Organic Chemistry I	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
Students who take CHEM 3053 should plan to enroll in 6 hours of Major, College, or Elective courses		
PBIO 2403	Introduction to Plant Molecular Biology	3
General Education, College, or Major courses		6
	Hours	**14**
Junior		
Fall		
BIOL 3034	General Ecology	4
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	5
CHEM 3153 and CHEM 3112 should be taken if student previously took CHEM 3053		
Major, College, and Elective courses		6
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
Major, College, and Elective courses		12
	Hours	**16**
Senior		
Fall		
BIOL 4133	Evolution	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Plant Biology: Cell Biology and Molecular Genetics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
or MATH 1613	Trigonometry (Q)	
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
PHYS 1114	College Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Core Courses		
BIOL 3023	General Genetics	3
BIOL 4133	Evolution	3
PBIO 1404	Plant Biology (LN)	4
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 4233	Plant Anatomy	3
PBIO 4400	Undergraduate Research	1
PBIO 4463	Plant Physiology	3
PBIO 4654	Plant Secondary Metabolism	4
7 additional hours of PBIO courses		7
Select one of the following:		5-8
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
or		
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
MICR 2123	Introduction to Microbiology	3
or MICR 3033	Cell and Molecular Biology	
Related Courses		
Minimum of 10-13 hours of upper-division coursework (no more than 3 hours of general education courses) from the following:		10-13
BIOC; BIOL; CHEM; CS; ENTO; ENVR; GEOG; GEOL; HORT; MATH; MICR; NREM; PBIO; PHYS; PLNT; PLP; SOIL; or STAT.		
Hours Subtotal		**52**
Electives		
Select 14 hours		14
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**14**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
PBIO 1404	Plant Biology (LN)	4
MATH 1813	Preparation for Calculus (Q) (or higher)	3
General Education or Elective courses		6
	Hours	**14**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4

General Education or Elective courses		7
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123	Introduction to Microbiology	3
General Education, College, or Elective courses		6
	Hours	**14**
Spring		
CHEM 3053 or CHEM 3013	Organic Chemistry I or Survey of Organic Chemistry	3
Students who take CHEM 3013 should plan to enroll in CHEM 3012 and reduce their College, Major, or Elective credits		
PBIO 2403	Introduction to Plant Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
General Education, Major, or Elective courses		6
	Hours	**16**
Junior		
Fall		
BIOL 3023	General Genetics	3
CHEM 3153	Organic Chemistry II (if student took CHEM 3053)	3
CHEM 3112 or CHEM 3012	Organic Chemistry Laboratory or Survey of Organic Chemistry Laboratory	2
PBIO 4233	Plant Anatomy	3
College, Major, and Elective courses		3
	Hours	**14**
Spring		
PBIO 4400	Undergraduate Research	1
PBIO 4463	Plant Physiology	3
College, Major, or Elective courses		12
	Hours	**16**
Senior		
Fall		
BIOL 4133	Evolution	3
Major or Elective courses		12
	Hours	**15**
Spring		
PBIO 4654	Plant Secondary Metabolism	4
Major or Elective courses		12
	Hours	**16**
	Total Hours	**120**

Plant Biology: Ecology and Evolutionary Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
MATH 1813	Preparation for Calculus (Q) (or higher)	3
or MATH 1613	Trigonometry (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
PHYS 1114	College Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Core Courses		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
PBIO 1404	Plant Biology (LN)	4
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 4005	Field Botany	4-5
or PBIO 3114	Plant Taxonomy	
PBIO 4400	Undergraduate Research	1
7 additional hours of PBIO courses.		7
Select one of the following:		5-8
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Related Courses		
Minimum of 10-14 hours of upper-division coursework (no more than 3 hours of general education courses) from the following:		
BIOC; BIOL; CHEM; CS; ENTO; ENVR; GEOG; GEOL; HORT; MATH; MICR; NREM; PBIO; PHYS; PLNT; PLP; SOIL; or STAT.		
Hours Subtotal		**48**
Electives		
Select 18 hours		18
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**18**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
MATH 1813	Preparation for Calculus (Q) (or higher)	3
PBIO 1404	Plant Biology (LN)	4
General Education and Elective courses		7
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education and Elective courses		7
	Hours	**15**

Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PHYS 1114	College Physics I (LN)	4
General Education, College, or Elective courses		6
MICR 2123 recommended Elective		
	Hours	**15**
Spring		
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry or Organic Chemistry I	3
CHEM 3012	Survey of Organic Chemistry Laboratory (if taking CHEM 3013 only)	2
PBIO 2403	Introduction to Plant Molecular Biology	3
General Education, College, or Major courses		7
	Hours	**15**
Junior		
Fall		
BIOL 3034	General Ecology	4
PBIO 4005	Field Botany (or PBIO 3114 in spring)	5
College, Major, and Elective courses		6
Take CHEM 3112 and CHEM 3153 if completing CHEM 3053		
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
Major and Elective courses		11
Take PBIO 3114 if needed		
	Hours	**15**
Senior		
Fall		
BIOL 4133	Evolution	3
Major and Elective courses		12
	Hours	**15**
Spring		
Major and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Plant Biology: Pre-Forensics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one from the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
or MATH 1613	Trigonometry (Q)	
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
PHYS 1114	College Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first-year seminar course)	1
Arts & Humanities		
(See Note 2.a.)		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Languages		
0-6 hours (See note 3.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Core Courses:		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
PBIO 1404	Plant Biology (LN)	4
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 4013	Biological Microtechnique	3
PBIO 4400	Undergraduate Research (1 hour)	1
PBIO 4524	Biological Laboratory Instrumentation	4
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
7 additional hours of PBIO courses.		7
Pre-Forensics Courses (choose 12 hours from the following - may need to include 12 upper-division hours):		12
BIOC 3653	Survey of Biochemistry	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
CHEM 2113	Principles of Analytical Chemistry	
CHEM 2122	Quantitative Analysis Laboratory	
ENTO 4573	Introduction to Forensic Entomology	
MICR 2123	Introduction to Microbiology	
MICR 2132	Introduction to Microbiology Laboratory	
MICR 3033	Cell and Molecular Biology	
SOC 4333	Criminology (S)	
SOC 4733	Criminal Behavior Analysis	
Hours Subtotal		**52**
Electives		
May need to include 6 hours of a foreign language (see note 3.).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
14 hours of Electives		14
Recommended courses:		
PBIO 3114	Plant Taxonomy	
PBIO 3553	Fungi: Myths and More	
PBIO 4005	Field Botany	
SOC 4733	Criminal Behavior Analysis	
SOC 4753	Advanced Forensics	

Hours Subtotal	**14**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1813	Preparation for Calculus (Q)	3
PBIO 1404	Plant Biology (LN)	4

General Education courses		4
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		4
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123 or MICR 3033	Introduction to Microbiology or Cell and Molecular Biology	3
General Education courses		7
	Hours	**15**
Spring		
CHEM 3053	Organic Chemistry I	3
BIOL 3034	General Ecology	4
PBIO 2403	Introduction to Plant Molecular Biology	3
Major and College courses		5
	Hours	**15**
Junior		
Fall		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
Major, College, and Elective courses		10
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
STAT 4013 or STAT 2013	Statistical Methods I (Q) or Elementary Statistics (Q)	3
Major, College, and Elective courses		9
	Hours	**16**
Senior		
Fall		
BIOL 4133	Evolution	3
PBIO 4524	Biological Laboratory Instrumentation	4
Major, College, and Elective courses		7
	Hours	**14**
Spring		
PBIO 4013	Biological Microtechnique	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Plant Biology: Pre-Law Environmental Policy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) (or higher) [1]	3
PHIL 1313	Logic and Critical Thinking (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) [1]	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**44**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Core Courses:		
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 4133	Evolution	3
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	5
PBIO 1404	Plant Biology (LN)	4
PBIO 4400	Undergraduate Research	1
7 additional hours of PBIO courses		7
Pre-Law Courses:		
9 hours from the following:		9
AGEC 1113	Introduction to Agricultural Economics (S)	
AGEC 3713	Agricultural Law	
AMIS 2013	Introduction to American Indian Studies (D)	
LSB 1113	Law in Society	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3843	Philosophy of Law (H)	
POLS 2023	The Individual And The Law	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying and the Power of Organized Interests	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
Related Courses:		
Minimum of 9 hours of upper-division coursework (no more than 3 hours of general education courses) from the following:		9
BIOC; BIOL; CHEM; CS; ENTO; ENVR; GEOG; GEOL; HORT; MATH; MICR; NREM; PBIO; PHYS; PLNT; PLP; SOIL; or STAT.		
Hours Subtotal		**45**
Electives		18
May need to include 6 hours of a foreign language (see note 3.).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		

Additional requirement dependent on law school.

Hours Subtotal	**18**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1513	College Algebra (Q)	3
PBIO 1404	Plant Biology (LN)	4
General Education courses		4
	Hours	**15**

Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		4
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		7
	Hours	**15**
Spring		
CHEM 3013	Survey of Organic Chemistry	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
BIOL 3034	General Ecology	4
Major and College courses		6
	Hours	**15**
Junior		
Fall		
PHYS 1114	College Physics I (LN)	4
Major, College, and Elective courses		11
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
Major courses		11
	Hours	**15**
Senior		
Fall		
BIOL 4133	Evolution	3
Major courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Plant Biology: Pre-Pharmacy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.5
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) [1]	4
PHYS 1214	College Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Core Courses:		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 3023	General Genetics	3
BIOL 3204	Physiology	4
BIOL 3214	Human Anatomy	4
BIOL 4133	Evolution	3
BIOC 3653	Survey of Biochemistry	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 2123	Introduction to Microbiology	3
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 3273	Medical Botany (N)	3
PBIO 4400	Undergraduate Research	1
PBIO 4654	Plant Secondary Metabolism	4
7 additional hours of PBIO courses		7
Hours Subtotal		**59**
Electives		**8**
May need to include 6 hours of a foreign language		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144		
Additional requirements dependent on pharmacy school		
Hours Subtotal		**8**
Total Hours		**120**

Other Requirements:

- See College of Arts & Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and

Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
CHEM 1314	Chemistry I (LN)	4
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
PBIO 1404	Plant Biology (LN)	4
	Hours	**16**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
CHEM 1515	Chemistry II (LN)	5
General Education courses		3
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
General Education courses		3
	Hours	**15**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PBIO 2403	Introduction to Plant Molecular Biology	3

PBIO 3273	Medical Botany (N)	3
Major, College, General Education courses		4
	Hours	**15**
Junior		
Fall		
BIOC 3653	Survey of Biochemistry	3
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
Major, College, and Elective courses		5
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
PHYS 1214	College Physics II (LN)	4
Major courses		7
	Hours	**15**
Senior		
Fall		
BIOL 4133	Evolution	3
Major and Elective courses		12
	Hours	**15**
Spring		
BIOL 3214	Human Anatomy	4
PBIO 4654	Plant Secondary Metabolism	4
Major and Elective courses		6
	Hours	**14**
	Total Hours	**120**

Zoology (ZOOL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 24

Code	Title	Hours
Minor Requirements		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 4133	Evolution	3
BIOL 3034	General Ecology	4
or BIOL 3204	Physiology	
Select one of the following:		3
BIOL 3104	Invertebrate Zoology	
BIOL 4104	General Parasitology	
BIOL 4134	Embryology	
BIOL 4174	Mammalogy	
BIOL 4184	Herpetology	
BIOL 4413	Biology of Fishes	
BIOL 4434	Limnology	
BIOL 4464	Ornithology	
Select one additional upper-division course in BIOL (excluding general education courses).		3
Total Hours		**24**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Zoology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4700	Undergraduate Research Problems (1 hour)	1
or BIOL 4710	Internships in Integrative Biology	
or BIOL 4730	Collaborative Research in Integrative Biology	
MICR 2123	Introduction to Microbiology	3
or MICR 3033	Cell and Molecular Biology	
Select 10 hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)		10
Organic Chemistry, choose from:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Supplemental Courses		
Select 2 of the following from different prefixes:		6
ANSI 3444	Animal Reproduction	
BIOC 3653	Survey of Biochemistry	
CHEM 4313	Medicinal Organic Chemistry	
ENGL 3323	Technical Writing	
ENTO 4223	Ecological Methodology	
ENTO 4484	Aquatic Entomology	
ENVR 3113	Environmental Sampling and Analysis	
ENVR 4033	Ecology of Invasive Species	
GEOG 3023	Climatology (N)	
GEOG 3153	Conservation of Natural Resources (S)	

GEOG 3373	Health and Maps
GEOG 4053	Biogeography, Biodiversity, and Humankind
GEOG 4073	Climate Change: Past, Present, and Future
GEOG 4083	Grasslands and Savannas: Evolution and Environmental Issues
GEOG 4203	Fundamentals of Geographic Information Systems
GEOG 4333	Remote Sensing
GEOL 3503	Environmental Geology (N)
GEOL 4453	Hydrogeology
GEOL 4503	Introduction to Oceanography (N)
GEOL 4513	Marine Geology
HLTH 3113	Health Issues in Diverse Populations (D)
HLTH 3603	Understanding HIV (DS)
HIST 3913	History of Medicine (H)
HIST 4523	American Environmental History (H)
MICR 3253	Immunology
MICR 3553	Foundations of Cancer
NREM 3143	Forest Biology
NREM 3153	Forest Health and Disturbance Ecology
NREM 3503	Principles of Wildlife Ecology and Management
NREM 3523	Fish and Wildlife Population Biology
NREM 4023	Restoration Ecology
NREM 4033	Ecology Of Invasive Species
NREM 4043	Natural Resource Administration and Policy
NREM 4443	Watershed Hydrology and Water Quality
NREM 4523	Wildlife Management Techniques
NREM 4543	Wildlife Management for Biodiversity
PHIL 3703	Ethics & Animals (H)
PHIL 3733	Environmental Ethics (H)
PHIL 3833	Biomedical Ethics (H)
PHIL 4713	Philosophy of Science (H)
PHIL 4733	Philosophy of Biology (H)
POLS 4363	Environmental Law And Policy
PSYC 3113	Comparative Psychology (N)
PSYC 3443	Psychopathology (S)
SOC 4153	Sociology of Health and Illness
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
Hours Subtotal	**55**
Electives [2]	
Select 11 hours	11
May need to include 6 hours of a foreign language. See note 3	
MATH 1513 required for students who do not place directly into MATH 1813.	
PSYC 1113 and SOC 1113 recommended.	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours	
Hours Subtotal	**11**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting

a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
General Education courses		7
	Hours	**15**
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		7
	Hours	**15**
Sophomore		
Fall		
BIOL 3034	General Ecology	4
CHEM 1515	Chemistry II (LN)	5
MICR 2123 or MICR 3033	Introduction to Microbiology or Cell and Molecular Biology	3
General Education or Elective courses		3
	Hours	**15**
Spring		
BIOL 3104	Invertebrate Zoology	4
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		7
	Hours	**15**
Junior		
Fall		
BIOL 3114	Vertebrate Zoology	4
BIOL 4700 or BIOL 4710 or BIOL 4730	Undergraduate Research Problems or Internships in Integrative Biology or Collaborative Research in Integrative Biology	1
PHYS 1214	College Physics II (LN)	4
Major or Elective courses		6
	Hours	**15**
Spring		
CHEM 3053 or CHEM 3013 ***and*** CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry ***and*** Survey of Organic Chemistry Laboratory	5
Choose an upper division BIOL course with a lab		4
General Education or Supplemental courses		6
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory (If taking 8-hour sequence)	5
General Education, Major, or Supplemental courses		7
	Hours	**15**
Spring		
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		8
	Hours	**15**
	Total Hours	**120**

Zoology: Ecology and Conservation Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4700	Undergraduate Research Problems (1 hour)	1
or BIOL 4710	Internships in Integrative Biology	
or BIOL 4730	Collaborative Research in Integrative Biology	
MICR 2123	Introduction to Microbiology	3
or MICR 3033	Cell and Molecular Biology	
Select 4 additional hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)		4
Organic Chemistry, choose from:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Related Courses		
BIOL 3153	Animal Behavior	3
BIOL 3513	Principles of Conservation Biology	3
PBIO 1404	Plant Biology (LN)	4
or PBIO 4005	Field Botany	
Supplemental Courses		
Select one of the following:		3
ENGL 3323	Technical Writing	
ENTO 4223	Ecological Methodology	
ENTO 4484	Aquatic Entomology	

ENVR 3113	Environmental Sampling and Analysis
ENVR 4033	Ecology of Invasive Species
GEOG 3023	Climatology (N)
GEOG 3153	Conservation of Natural Resources (S)
GEOG 3373	Health and Maps
GEOG 4053	Biogeography, Biodiversity, and Humankind
GEOG 4073	Climate Change: Past, Present, and Future
GEOG 4203	Fundamentals of Geographic Information Systems
GEOG 4333	Remote Sensing
GEOL 3503	Environmental Geology (N)
GEOL 4453	Hydrogeology
GEOL 4503	Introduction to Oceanography (N)
NREM 3143	Forest Biology
NREM 3153	Forest Health and Disturbance Ecology
NREM 3503	Principles of Wildlife Ecology and Management
NREM 3523	Fish and Wildlife Population Biology
NREM 4023	Restoration Ecology
NREM 4033	Ecology Of Invasive Species
NREM 4043	Natural Resource Administration and Policy
NREM 4443	Watershed Hydrology and Water Quality
NREM 4523	Wildlife Management Techniques
NREM 4543	Wildlife Management for Biodiversity
PHIL 3733	Environmental Ethics (H)
POLS 4363	Environmental Law And Policy
SOC 4433	Environmental Sociology (S)
Hours Subtotal	**56**
Electives [2]	
Select 10 hours	10
MATH 1513 required for students who do not place directly into MATH 1813.	
May need to include 6 hours of a foreign language. (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours	
PSYC 1113 and SOC 1113 recommended.	
Hours Subtotal	**10**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
General Education courses		7
	Hours	**15**
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		7
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404 or PBIO 4005	Plant Biology (LN) or Field Botany	4
General Education or Elective courses		6
	Hours	**15**
Spring		
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
MICR 2123 or MICR 3033	Introduction to Microbiology or Cell and Molecular Biology	3
General Education and Major courses		4
	Hours	**15**
Junior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3114	Vertebrate Zoology	4
BIOL 3513	Principles of Conservation Biology	3
ENGL 3323	Technical Writing (Suggested)	3
Supplemental or Elective courses		2
	Hours	**15**
Spring		
BIOL 3153	Animal Behavior	3
BIOL 4700 or BIOL 4710 or BIOL 4730	Undergraduate Research Problems or Internships in Integrative Biology or Collaborative Research in Integrative Biology	1
CHEM 3053 or CHEM 3013 ***and*** CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry ***and*** Survey of Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
Elective Courses		2
	Hours	**15**
Senior		
Fall		
BIOL 3204 or CHEM 3153 ***and*** CHEM 3112	Physiology or Organic Chemistry II ***and*** Organic Chemistry Laboratory	4
BIOL 4133	Evolution	3
PHYS 1214	College Physics II (LN)	4
General Education, Major, or Supplemental courses		4
	Hours	**15**
Spring		
BIOL 3204	Physiology (If taking CHEM 3153 & CHEM 3112)	4
Choose an upper division BIOL course with a lab		4
General Education, Major, or Supplemental courses		7
	Hours	**15**
	Total Hours	**120**

Zoology: Pre-Medical Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
or BIOL 4104	General Parasitology	
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4700	Undergraduate Research Problems (1 hour)	1
or BIOL 4710	Internships in Integrative Biology	
or BIOL 4730	Collaborative Research in Integrative Biology	
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
Select 4 hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)		4
Related Courses		
BIOC 3653	Survey of Biochemistry	3
Supplemental Courses		
Select one of the following:		3
CHEM 4313	Medicinal Organic Chemistry	
ENGL 3323	Technical Writing	
GEOG 3373	Health and Maps	
HDFS 4813	Dying, Death and Bereavement	
HHP 4064	Neuroanatomy	
HIST 3913	History of Medicine (H)	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3603	Understanding HIV (DS)	
HLTH 3723	Principles of Epidemiology	
MICR 3253	Immunology	

MICR 3553	Foundations of Cancer	
PHIL 3833	Biomedical Ethics (H)	
PHIL 4713	Philosophy of Science (H)	
PHIL 4733	Philosophy of Biology (H)	
SOC 4153	Sociology of Health and Illness	
PSYC 3443	Psychopathology (S)	
Hours Subtotal		**57**
Electives [2]		
Select 9 hours		9
MATH 1513 required for students who do not place directly into MATH 1813.		
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours		
PSYC 1113 and SOC 1113 recommended.		
Hours Subtotal		**9**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Additional requirements for professional school admission exist. View Admission Requirement Sheets at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
CHEM 1314	Chemistry I (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
UNIV 2511	Introduction to Health Careers (Suggested)	1
General Education courses		6
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
UNIV 2611	Health Portfolio and Self-Development (Suggested)	1
General Education courses		2
	Hours	**15**
Spring		
BIOL 3204	Physiology	4
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	5
Major or Elective courses		6
	Hours	**15**
Junior		
Fall		
BIOC 3653	Survey of Biochemistry	3
BIOL 3114	Vertebrate Zoology	4
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		4
	Hours	**15**
Spring		
BIOL 3023	General Genetics	3
BIOL 3034 or BIOL 3104	General Ecology or Invertebrate Zoology	4
PHYS 1214	College Physics II (LN)	4
UNIV 3511	Health Profession School Preparation (Suggested)	1
General Education or Supplemental courses		3
	Hours	**15**
Senior		
Fall		
BIOL 4104 or BIOL 3034	General Parasitology or General Ecology	4
BIOL 4700 or BIOL 4710 or BIOL 4730	Undergraduate Research Problems or Internships in Integrative Biology or Collaborative Research in Integrative Biology	1
MICR 3033	Cell and Molecular Biology	3
General Education, Major, or Supplemental courses		7
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
Choose an upper division Biology class with a lab		4
General Education, Major, or Supplemental courses		8
	Hours	**15**
	Total Hours	**120**

Zoology: Pre-Veterinary Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1]	3
STAT 4013	Statistical Methods I (Q) [1]	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
or BIOL 4104	General Parasitology	
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4700	Undergraduate Research Problems (1 hour)	1
or BIOL 4710	Internships in Integrative Biology	
or BIOL 4730	Collaborative Research in Integrative Biology	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Select 7 hours additional upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)		7
Organic Chemistry, Choose From:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Related Courses		
ANSI 3543	Principles of Animal Nutrition	3
BIOC 3653	Survey of Biochemistry	3
Supplemental Courses		
Select one of the following:		3
ANSI 3444	Animal Reproduction	
CHEM 4313	Medicinal Organic Chemistry	
ENGL 3323	Technical Writing	
ENTO 4223	Ecological Methodology	
GEOG 3373	Health and Maps	

HIST 3913	History of Medicine (H)	
MICR 3253	Immunology	
MICR 3553	Foundations of Cancer	
NREM 4523	Wildlife Management Techniques	
PHIL 3703	Ethics & Animals (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 4713	Philosophy of Science (H)	
PHIL 4733	Philosophy of Biology (H)	
PSYC 3113	Comparative Psychology (N)	
Hours Subtotal		**57**
Electives [2]		
Select 9 hours		9
MATH 1513 required for studnets who do not place directly into MATH 1813.		
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours		
PSYC 1113 and SOC 1113 recommended.		
Hours Subtotal		**9**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Additional requirements for professional school admission exist. View Admission Requirement Sheets at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

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1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
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   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
General Education courses		7
	Hours	**15**
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		7
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education or Elective courses		5
	Hours	**15**
Spring		
ANSI 3543	Principles of Animal Nutrition	3
CHEM 3053 or CHEM 3013 ***and*** CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry ***and*** Survey of Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
General Education or Elective courses		3
	Hours	**15**
Junior		
Fall		
BIOL 3114 or CHEM 3153 ***and*** CHEM 3112	Vertebrate Zoology or Organic Chemistry II ***and*** Organic Chemistry Laboratory	4
PHYS 1214	College Physics II (LN)	4
Major or Elective courses		7
	Hours	**15**
Spring		
BIOC 3653	Survey of Biochemistry	3
BIOL 3034 or BIOL 3104	General Ecology or Invertebrate Zoology	4
BIOL 4700 or BIOL 4710 or BIOL 4730	Undergraduate Research Problems or Internships in Integrative Biology or Collaborative Research in Integrative Biology	1
Choose an upper division Biology class with a lab		4
General Education or Supplemental courses		3
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3114	Vertebrate Zoology (If taking CHEM 3153 and CHEM 3112)	4
BIOL 4104 or BIOL 3034	General Parasitology or General Ecology	4
General Education, Major, or Supplemental courses		4
	Hours	**15**
Spring		
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses (Suggest ENGL 3323)		8
	Hours	**15**
	Total Hours	**120**

Zoology: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher) [1, 2]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses Designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1, 2]	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) [1,2]	4
CHEM 1515	Chemistry II (LN) [1,2]	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
PHIL 3933	Creation and Evolution	3
Natural & Mathematical Sciences		
PBIO 1404	Plant Biology (LN) [2]	4
PHYS 1114	College Physics I (LN) [2]	4
STAT 4013	Statistical Methods I (Q) [2]	3
or STAT 2013	Elementary Statistics (Q)	
Foreign Language		
(See note 3)		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**15**
Major Requirements		
Zoology Core		
Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Zoology Core and those denoted with [2]		
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
MICR 3033	Cell and Molecular Biology	3
Secondary Education Professional Core:		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
CIED 3313	Field Experience in the Secondary Schools	3
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom [3]	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 4720	Internship in the Secondary Classroom [3]	6
Hours Subtotal		**61**
Electives		
Select 4 hours		4
MATH 1513 required for students who do not place directly into MATH 1813 (or MATH 1613).		

May need to include 3 hours of a foreign language (see note 3).	
Hours Subtotal	**4**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Zoology Core and those denoted with this footnote.

3

Full admission to Professional Education required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
SMED 1012	Inquiry Approaches to Teaching	2
General Education courses		6
	Hours	**16**
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		8
	Hours	**16**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
PHIL 3933	Creation and Evolution	3
General Education, Major, or Elective courses		3
	Hours	**15**
Spring		
BIOL 3104	Invertebrate Zoology	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
SPED 3202	Educating Exceptional Learners	2
General Education and Major courses		3
	Hours	**16**
Junior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3114	Vertebrate Zoology	4
CIED 3313	Field Experience in the Secondary Schools	3
MICR 3033	Cell and Molecular Biology	3
Major or Elective courses		3
	Hours	**16**
Spring		
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
General Education, Major, or Elective courses		3
	Hours	**17**
Senior		
Fall		
BIOL 3034	General Ecology	4
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
General Education, Major, or Elective courses		5
	Hours	**15**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Certificates

Undergraduate Certificates

- Biblical Studies, Undergraduate Certificate (p. 1177)
- Digital Studies, Undergraduate Certificate (p. 1178)
- eSports, Undergraduate Certificate (p. 1179)
- Pre-Health Care Administration, Undergraduate Certificate (p. 1180)
- Pre-Medical Sciences, Undergraduate Certificate (p. 1181)

Biblical Studies, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Certificate Coursework: 2.50
Total Hours: 15

Code	Title	Hours
Certificate Requirements		
Select 6 hours from the following:		6
REL 2013	The Old Testament and its Study (H)	
REL 2023	The New Testament and Its Study (H)	
Select 9 hours from the following:		9
REL 3223	Jesus: Teachings, History and Interpretation (H)	
REL 3413	The Bible and Contemporary Social Issues (H)	
REL 4330	Seminar in Biblical Studies	
REL 4613	Women in the Bible (H)	
REL 4923	Visions of Apocalypse: Portrayals of the End-Time in World Religions (H)	
REL 3423	Classic Christian Writings (H)	
HIST 3013	Ancient Egypt and Israel (H)	
GREK 1713	Elementary Classical Greek I (F)	
LATN 1713	Elementary Latin I (F)	
HBRW 1713	Elementary Biblical Hebrew I (F)	
or LL 1000	Special Studies in Languages and Literatures	
Total Hours		**15**

Digital Studies, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Digital Culture Core		
ENGL 2253	Theory and Practice of Digital Studies	3
or AMST 3683	Introduction to Digital Humanities	
Capstone Experience		
A&S 4113	Research in Digital Studies	3
or A&S 4710	Internship in Digital Studies	
Electives		
Select 9 hours from the following: [1]		9
Digital Application Core		
ART 2093	Non-Major Photography I	
ART 2283	Studio Art Digital Survey	
ART 4420	Graphic Design Studio	
EDTC 3123	Applications of Educational Technologies	
EDTC 4113	Applications of Media and Technology	
ENGL 4143	Language and Technology	
ENGL 4553	Visual Rhetoric and Design	
ENGL 4573	Games and Writing	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 4203	Fundamentals of Geographic Information Systems	
HIST 4073	Digital Methods in History	
MC 2023	Electronic Communication	
MMJ 3153	Fundamentals of Video and Studio Production	
MMJ 3873	Podcast and Audio Production	
MMJ 4573	Broadcast Documentary	
Computing & Info Sciences Core		
Any CS or MSIS courses		
Total Hours		**15**

1

Students must take at least 3 hours in each area, 6 hours must be at the upper-division level, and courses must be from at least 2 departments. Courses not on this list may be approved by the Curriculum Committee on a case-by-case basis.

eSports, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Core Requirements		
SPM 1883	Introduction to eSports	3
Select one course from:		3
MC 1143	Media in a Diverse Society (DS)	
MC 2023	Digital Media Essentials	
SPM 2843	Sports and the Media	
SC 2183	Introduction to Strategic Communications	
SC 3043	Entertainment in the Media	
Select three courses (9 hours) from:		9
MC 3113	Introduction to Media Effects	
MC 4043	Media Study Abroad (G)	
MUSI 3593	Video Game Music	
SPM 3880	Topics in eSports (Topics vary by semester)	
Total Hours		**15**

Other Requirements

- The student must have a Bachelor's degree or is expected to complete a Bachelor's degree by the completion of certificate requirements.
- The student maintains a 2.50 GPA in the certificate courses, with no grade below "C".
- Residency Requirement: The student must complete half of the total hours at Oklahoma State University.

Pre-Health Care Administration, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 20

Code	Title	Hours
General Education		
PHIL 1213	Philosophies of Life (H)	3
or PHIL 3803	Business Ethics (H)	
or PHIL 3833	Biomedical Ethics (H)	
PSYC 1113	Introductory Psychology (S)	3
Hours Subtotal		**6**
Core Requirements		
HHP 2802	Medical Terminology for the Health Professions	2
POLS 2020	Topics in Public Law (S)	3
or POLS 2030	Topics in Public Policy & Administration	
or LSB 3213	Legal and Regulatory Environment of Business	
SOC 1113	Introductory Sociology (S)	3
or SOC 4153	Sociology of Health and Illness	
STAT 2013	Elementary Statistics (A)	3
or STAT 2023	Elementary Statistics for Business and Economics (A)	
or CS 1013	Computer Science Principles	
or MSIS 2103	Business Data Science Technologies	
Select 3 hours from the following:		3
ECON 1113	The Economics of Social Issues (S)	
ECON 2003	Microeconomic Principles for Business	
ECON 2103 & ECON 2203	Introduction to Microeconomics (S) and Introduction to Macroeconomics [1]	
Hours Subtotal		**14**
Total Hours		**20**

1

If ECON 2103/ECON 2203 option is selected under Core Requirements, then 23 total hours are required for this certificate.

Other Requirements

- Minimum GPA 2.50 with no grade below C. Minimum 15 hours in residence at OSU.
- A bachelor's degree from Oklahoma State University or another accredited college or university is required to be eligible to earn the certificate.

Pre-Medical Sciences, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 63

Code	Title	Hours
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, not MATH 1493)	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
or STAT 4013	Statistical Methods I (Q)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Choose from the following: [1]		*4*
BIOL 1604	Animal Biology	
BIOL 3204	Physiology	
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory [1]	
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
CHEM 3053	Organic Chemistry I	3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
PSYC 1113	Introductory Psychology (S)	3
SOC 1113	Introductory Sociology (S)	3
3 additional hours from: ENGL, PHIL, PSYC, SOC, or any Humanities (H)		3
BIOL 3023	General Genetics	3
or MICR 3033	Cell and Molecular Biology	
BIOC 3653	Survey of Biochemistry	3
or BIOC 3713	Biochemistry I	
Select two of the following: [2]		6
BIOL 3214	Human Anatomy [2]	
BIOL 3233	Human Reproduction	
BIOL 4024	Histology [2]	
BIOL 4073	Principles of Neuroscience	
BIOL 4104	General Parasitology [2]	
BIOL 4133	Evolution	
BIOL 4134	Embryology [2]	
BIOL 4215	Mammalian Physiology [2]	
BIOL 4253	Pharmacology	
BIOL 4273	Environmental Physiology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
BIOL 4333	Disease Ecology	
BIOL 4363	Principles of Toxicology	
Total Hours		**63**

1

Choosing MICR 2123 and MICR 2132 increases overall hours.

2

Choosing BIOL 3214, BIOL 4024, BIOL 4104, BIOL 4134 or BIOL 4215 increases overall hours.

Other Requirements

- Minimum GPA 3.00 with no grade below "C." Minimum 15 hours in residence at OSU.
- A bachelor's degree from Oklahoma State University or another accredited college or university is required.

Chemistry

Chemistry is a science devoted to the creation and evaluation of compounds and materials. Chemists have: created well-known materials such as Nylon, Teflon, and Kevlar; developed and synthesized life-saving molecules for treating cancer, diabetes, and other diseases; and created new proteins to digest waste plastics in order to help build a more sustainable society. Chemists are also involved in making measurements crucial toward determining the presence of hazardous pollutants in our environment and the safety of our food and water supplies. Chemistry is at the forefront in developing and advancing new technologies to solve problems in agriculture, electronics, energy, forensics, and medicine.

A student considering a career in chemistry should have a strong curiosity about the nature of how things work, good problem solving skills, and most important of all - a desire to learn. Chemistry is often called the Central Science because it is a bridge from the foundational knowledge of math and physics to applications in materials development and the life sciences. For this reason, chemists are employed in all phases of our economy - industry, government, and education.

The Department of Chemistry offers BS degrees in:

1. **Biochemistry** (for students interested in medicine, pharmacy, and advanced studies or other careers in biochemistry/chemistry)
2. **Medicinal Chemistry** (for students interested in pharmaceutical research, drug development, or pharmacy/medical school)
3. **Chemistry**, with concentrations in:
    - *American Chemical Society (ACS) Approved* (for students interested in pursuing an advanced degree or career in chemistry, or teaching chemistry at the college-level)
    - *Pre-Health* (for students interested in medicine, pharmacy, or other health related fields)
    - *Secondary Teacher Certification* (for students interested in teaching high school chemistry)

Students should contact Sheri Orr, Senior Academic Advisor, at sheri.m.orr@okstate.edu for questions about which degree is the best fit for their career goals and interests.

Courses

CHEM 1014 Chemistry In Civilization (LN)
Description: A survey course presenting the concepts and principles of chemistry for students outside the health, science and engineering fields. This course covers the basics of chemistry and chemical contributions to society such as polymers, consumer chemicals, drugs, and radioactivity. May not be used for degree credit with CHEM 1215 or CHEM 1314.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1215 Chemical Principles I (LN)
Prerequisites: MATH 1483 or MATH 1513 or a higher level math course with a “C” or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: The beginning chemistry course recommended for students in the applied biological sciences. This course covers chemical principles and their applications to their properties and transformations of matter, including periodic classification of the elements, laws of chemical combination, atomic and molecular structure, and chemical bonding. Course previously offered as CHEM 1015.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1225 Chemical Principles II (LN)
Prerequisites: Minimal grade of "C" in CHEM 1215 or CHEM 1314 or CHEM 1414 or acceptable AP credit.
Description: A continuation of Chemical Principles I for students in the applied biological sciences. Topics include gas laws, chemical equilibria, acid/base chemistry, oxidation/reduction, elementary chemical thermodynamics, and introduction to organic molecules.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1314 Chemistry I (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher with a “C” or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: The beginning chemistry course recommended for students in basic biological sciences (including pre-medical science and pre-veterinary sciences), physical sciences and engineering. This course covers chemical principles and their applications to the properties and transformations of matter, including periodic classification of the elements, laws of chemical combination, gas laws, atomic and molecular structure, and chemical bonding.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1414 General Chemistry for Engineers (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher with a “C” or better or an acceptable math placement score (see placement.okstate.edu) or acceptable AP credit.
Description: One seminar survey of general chemistry for engineering students. Topics include physical properties of states of matter, stoichiometry, atomic theory, periodic properties, bonding, thermodynamics, equilibrium, acid-base and redox reactions, electrochemistry. Topics will be discussed with respect to applications to materials, energy and environmental topics relevant to engineering students.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 1515 Chemistry II (LN)
Prerequisites: Minimum grade of "C" in CHEM 1314 or CHEM 1414 or acceptable AP credit.
Description: A continuation of Chemistry 1 for students in the basic biological sciences (including premedical science and pre-veterinary science), physical sciences, and engineering. Topics include, but not limited to, intermolecular forces, liquids and solids, chemical equilibria, acid/base chemistry, oxidation/reduction, electrochemistry, chemical kinetics, and elementary chemical thermodynamics.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 2 Contact: 6 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Chemistry
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHEM 2113 Principles of Analytical Chemistry
Prerequisites: A grade of "C" or better in CHEM 1515.
Description: Statistical analysis of analytical data, acid-base equilibria, acid-base titrations, electrochemistry, analytical separations, as well as atomic and molecular optical spectroscopy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 2122 Quantitative Analysis Laboratory
Prerequisites: CHEM 2113 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles in CHEM 2113.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 2890 Honors Experience in Chemistry
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Chemistry to partner concurrently with designated lower-division CHEM course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry
General Education and other Course Attributes: Honors Credit

CHEM 2980 Current Topics for Chemical Professionals
Prerequisites: Current enrollment in CHEM 1314 or higher chemistry course.
Description: Current topics for pre-chemical professionals which may include, but are not limited to; Chemistry of Life; Energy; Environmental; Materials; Energy, What's that Stuff?, and Teaching/Learning. The course is intended to provide interested undergraduates with a broader introduction to topics relevant to future trends in chemistry and chemically-related fields. Discussion will be directed by faculty members with expertise in the identified area. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 2990 Special Problems in Chemistry
Prerequisites: CHEM 1314 or concurrent enrollment.
Description: Training in independent work, study of relevant literature and experimental investigation of an assigned problem at the lower-division level. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 3012 Survey of Organic Chemistry Laboratory
Prerequisites: CHEM 3013 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 3013.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3013 Survey of Organic Chemistry
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1515 or acceptable AP credit.
Description: Terminal, one-semester organic chemistry lecture course covering the general principles of nomenclature, structure, bonding, methods of preparation, reactions and use of acyclic, cyclic, and aromatic compounds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3053 Organic Chemistry I
Prerequisites: CHEM 1515 with a "C" or better or acceptable AP credit.
Description: This course is the first of the in-depth sequence of organic chemistry. Topics include nomenclature, structure, stereochemistry, reactivity, properties, and synthesis of organic molecules with an emphasis on reaction mechanisms. This course is required for many life and physical science majors and pre-health students. Consult your degree requirements and professional school admission requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3112 Organic Chemistry Laboratory
Prerequisites: Completion of CHEM 3153 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 3053 and 3153.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3153 Organic Chemistry II
Prerequisites: A grade of "C" or higher in CHEM 3053.
Description: This course is the second of the in-depth sequence of organic chemistry starting with CHEM 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3353 Descriptive Inorganic Chemistry
Prerequisites: A grade of "C" or higher in CHEM 1515, CHEM 1225.
Description: Structures and properties of the elements and their many compounds in the broadest sense which includes the modern technologically important materials, organometallics, and inorganic substances of biological significance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3363 Bioinorganic Chemistry
Prerequisites: Grade of “C” or higher in CHEM 1225 or CHEM 1515 or acceptable AP credit.
Description: Discusses the structural and functional roles of main group and transition metals within biological systems. Topics may include: the transport, distribution and properties of metals in biological systems, the coordination chemistry of biologically active metals, physical methods for determining metalloprotein structure and reactivity, chemical processes including redox processes and long-range electron transfer reactions and metallocofactors and metal clusters. May not be used for degree credit with CHEM 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3413 Physical Chemistry Applications
Prerequisites: Minimum grade of "C" or higher in both CHEM 1515 and MATH 2144.
Description: A practical and applied approach to key topics in physical chemistry, including thermodynamics, chemical equilibria, and chemical kinetics, and how they relate to general chemical and biological processes on a molecular and macroscopic level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3433 Physical Chemistry I
Prerequisites: Minimum grade of "C" or higher in: CHEM 1515 and MATH 2153 and PHYS 2114.
Description: Introductory theoretical analysis of molecular structure, chemical bonding and macroscopic chemical systems using quantum theory, classical and statistical thermodynamics, and kinetics. Previously offered as CHEM 3434.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3532 Physical Chemistry Laboratory
Prerequisites: A grade of "C" or better in CHEM 2122 and CHEM 3433.
Description: Modern laboratory instrumentation, experimental techniques, and computational methods in physical chemistry.
Credit hours: 2
Contact hours: Lab: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 3553 Physical Chemistry II
Prerequisites: A grade of "C" or higher in CHEM 3433.
Description: A continuation of CHEM 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 3890 Advanced Honors Experience in Chemistry
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Chemistry to partner concurrently with designated upper-division CHEM course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry
General Education and other Course Attributes: Honors Credit

CHEM 4022 Modern Methods of Chemical Analysis Laboratory
Prerequisites: CHEM 4023 or concurrent enrollment.
Description: Laboratory exercises related to theoretical principles covered in CHEM 4023. May not be used for degree credit with CHEM 4020.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4023 Modern Methods of Chemical Analysis
Prerequisites: A grade of "C" or better in CHEM 2122; and CHEM 3413 or CHEM 3433.
Description: The design, operational principles and practical application of modern instrumental methods used in chemical analysis of natural and artificial materials. Covers the reagents and instruments used in the separation, identification and quantification of the chemical components. May not be used for degree credit with CHEM 4020.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4033 Forensic Chemistry
Prerequisites: CHEM 2113 with a "C" or better.
Description: An introduction to the principles and practices of forensic chemistry, with a focus on the analytical techniques and chemical analyses important in criminal investigations. This lecture course will cover the critical statistical practices necessary for taking convincing quantitative measurements. Analytical techniques including chromatography, UV/Vis & IR spectroscopy, mass spectrometry, will be introduced and discussed alongside historical forensic case studies. May not be used for degree credit with CHEM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4123 Biomolecular Chemistry and Function
Prerequisites: Minimum grade of "C" in CHEM 3153 and CHEM 3112.
Description: The class is designed to use examples from classic and current literature to expand the student's knowledge of the chemical techniques required to understand the structure and function of macromolecules in solution. These topics include chemical forces that stabilize macromolecular and supramolecular structure, thermodynamics and statistical mechanics of macromolecular and polymer folding, diffusional processes, kinetics, and the relationship of these principles to practical application in experimental design and interpretation. May not be used for degree credit with CHEM 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4312 Inorganic Chemistry Laboratory
Prerequisites: Minimum grade of "C" or better in CHEM 3112.
Description: Course will provide students with practical knowledge and experimental techniques commonly used in inorganic and organometallic chemistry.
Credit hours: 2
Contact hours: Lab: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Combined Lab & Discussion
Department/School: Chemistry

CHEM 4313 Medicinal Organic Chemistry
Prerequisites: Minimum grade of "C" in CHEM 3153 and CHEM 3112.
Description: This course looks at the development of new organic molecules for use in the pharmaceutical industry and investigates their pathway from the design stage to eventual introduction to the market. This course explores a range of important techniques necessary for the synthesis of complex organic architectures, an introduction to asymmetric synthesis, and polymer-supported synthesis of biomolecules including peptides and nucleic acids. This course also introduces various classes of drugs, mechanisms of action, drug metabolism and structure activity relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4320 Chemical and Spectrometric Identification of Organic Compounds
Prerequisites: A grade of "C" or higher in CHEM 3112 and CHEM 3153.
Description: Theory and practice in separating mixtures of organic compounds and some theory and practice in identifying organic compounds by spectroscopic methods. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4322 Advanced Organic Chemistry Laboratory
Prerequisites: Minimum grade of "C" in both CHEM 3153 and CHEM 3112.
Description: Training in the art of chemical synthesis, phenomena surrounding molecular interactions, separation strategies, and spectroscopic analysis of organic molecules. Same course as CHEM 4320.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemistry

CHEM 4333 Inorganic Chemistry I
Prerequisites: CHEM 1515 with minimum grade of "C."
Description: Bonding theory, molecular symmetry and its applications to structure, bonding and spectroscopy, structures of simple solids, inorganic acids and bases, oxidation and reduction, and industrial production of elements, coordination chemistry, crystal field theory, ligand field theory, introduction to organometallic chemistry. May not be used for degree credit with CHEM 5260.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4433 Computational Chemistry and Molecular Modeling
Prerequisites: Grade of "C" or better in either CHEM 3413 or CHEM 3433.
Description: This course introduces the concepts, tools, and possibilities for computational modeling of molecular systems. Primary topics of study include classical molecular mechanics simulations, quantum mechanical calculations, and molecular graphics & visualization. One key effort will be introduction into the usage of high performance computing systems. Such instruction on the use of the computational resources available at OSU will be provided in hands-on computer exercises that involve constructing, performing, and analyzing molecular simulations and calculations. May not be used for degree credit with CHEM 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 4482 Chemical Research & Literature Review
Prerequisites: CHEM 3153 with a "C" or better and Junior or Senior standing
Description: Student will learn how to conduct a comprehensive literature review of a current topic in chemistry, critically evaluate the current state of knowledge in this field, and summarize the findings. This evaluation will be presented orally and in a detailed written report.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Chemistry

CHEM 4650 Selected Topics in Chemistry
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 4990 Undergraduate Research in Chemistry
Prerequisites: Instructor permission required.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem culminating in a written and oral report. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 4993 Senior Thesis in Chemistry
Prerequisites: Instructor permission required.
Description: Capstone undergraduate research project and laboratory skills development in a discipline of chemistry. Guided reading and research program under the direction of a faculty member culminating in a senior research thesis and oral report.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5000 Thesis
Description: Familiarizes the student with methods used in research in chemistry. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5001 Introduction to Chemistry Research
Prerequisites: Graduate standing.
Description: Introduction to chemical research topics of interest to the department. Special emphasis placed on ethics, plagiarism, codes of conduct, research notebooks, publishing, and presentations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5011 Graduate Seminar
Description: Preparation and presentation of seminars usually on subjects of current interest taken from the literature. Completion of 1 credit hour required for MS degree.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Chemistry

CHEM 5033 Forensic Chemistry
Prerequisites: CHEM 2113
Description: An introduction to the principles and practices of forensic chemistry, with a focus on the analytical techniques and chemical analyses important in criminal investigations. This lecture course will cover the critical statistical practices necessary for taking convincing quantitative measurements. Analytical techniques including chromatography, UV/Vis & IR spectroscopy, mass spectrometry, will be introduced and discussed alongside historical forensic case studies. May not be used for degree credit with CHEM 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5053 Foundations of Physical Chemistry
Prerequisites: CHEM 3433 and CHEM 3153, or equivalent.
Description: This course provides the foundations of physical chemistry required for all disciplines of chemistry to understand the underlying principles necessary to advance at the graduate level. This core treatment will address thermodynamics and equilibria, chemical kinetics, quantum mechanics, spectroscopy, and statistical thermodynamics. These topics will provide the conceptual learning critical for interdisciplinary applications of physical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5063 Foundations of Organic Chemistry
Prerequisites: BS/BA in chemistry, CHEM 3153, or equivalent.
Description: This course provides the basic principles of organic chemistry necessary to advance at the graduate level in all disciplines of chemistry. This treatment will address bonding and its consequences, stereochemistry and conformational analysis, functional groups and their interconversions, reaction mechanisms, reactive intermediates and catalysis, synthesis and retrosynthetic analysis, and modern characterization. These topics will provide the conceptual background for interdisciplinary applications of organic chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5073 Foundations of Analytical Chemistry
Prerequisites: CHEM 4023 and CHEM 4022, or equivalent.
Description: This course provides the basic principles of analytical chemistry necessary to advance at the graduate level in all disciplines of chemistry. Subject matter includes the underlying principles of chemical analyses with emphasis on chemical and biological reactions (equilibrium, reaction rate, chemical labeling), instrumentation and instrumental design, sampling, sample preparation and method validation. These topics will provide the conceptual foundation critical for interdisciplinary applications of analytical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5103 Physical and Chemical Separations
Prerequisites: One year of physical chemistry.
Description: Principles of bulk and multi-stage separation methods: chromatography, liquid-liquid extraction, and zone melting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5113 Equilibrium and Kinetics in Analytical Chemistry
Prerequisites: One year of physical chemistry.
Description: Physical and chemical principles of equilibrium and kinetics as applied to analytical problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5123 Biomolecular Chemistry and Function
Prerequisites: CHEM 3153 and CHEM 3112
Description: The class is designed to use examples from classic and current literature to expand the student's knowledge of the chemical techniques required to understand the structure and function of macromolecules in solution. These topics include chemical forces that stabilize macromolecular and supramolecular structure, thermodynamics and statistical mechanics of macromolecular and polymer folding, diffusional processes, kinetics, and the relationship of these principles to practical application in experimental design and interpretation. May not be used for degree credit with CHEM 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5213 Innovations in Chemistry and STEM Education
Description: This course will train students on evidence-based instructional classroom practices relevant for improving student persistence and performance in chemistry and other STEM courses and conducting discipline-based education research in STEM.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5220 Topics For Teachers
Prerequisites: Teaching experience.
Description: Designed to help elementary and secondary science teachers improve their subject matter competence in chemistry. Content varies depending on the needs of specific groups of teachers. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5223 Polymer Chemistry
Prerequisites: CHEM 3153 and CHEM 3433 or equivalent.
Description: Preparation and polymerization of organic monomers; properties and uses of resulting high polymers; theories of polymerization; inorganic and natural organic polymers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5263 Foundations of Inorganic Chemistry
Prerequisites: CHEM 1515 with minimum grade of "C."
Description: Bonding theory, molecular symmetry and its applications to structure, bonding and spectroscopy, structures of simple solids, inorganic acids and bases, oxidation and reduction, and industrial production of elements, coordination chemistry, crystal field theory, ligand field theory, introduction to organometallic chemistry. May not be used for degree credit with CHEM 4333. Previously offered as CHEM 5260.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5283 Solid State Chemistry
Prerequisites: CHEM 5263.
Description: Structure, bonding, and properties of crystalline and amorphous inorganic solids. Emphasis on the characterization of inorganic solids and phase transitions in inorganic solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5323 Reactions of Organic Compounds
Prerequisites: CHEM 3153.
Description: Products and mechanisms of reactions of importance in organic synthesis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5363 Bioinorganic Chemistry
Prerequisites: CHEM 1515
Description: Discusses the structural and functional roles of main group and transition metals within biological systems. Topics may include: the transport, distribution and properties of metals in biological systems, the coordination chemistry of biologically active metals, physical methods for determining metalloprotein structure and reactivity, chemical processes including redox processes and long-range electron transfer reactions and metallocofactors and metal clusters. May not be used for degree credit with CHEM 3363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5373 Spectrometric Identification of Organic Compounds
Prerequisites: CHEM 4320.
Description: Lectures on ultraviolet, circular dichroism, infrared, nuclear magnetic resonance (NMR) and mass spectrometry (MS). More advanced techniques in NMR and MS stressed. Hands-on training and use of modern spectroscopic instrumentation in laboratory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5433 Computational Chemistry and Molecular Modeling
Prerequisites: CHEM 3433 or equivalent.
Description: This course introduces the concepts, tools, and possibilities for computational modeling of molecular systems. Primary topics of study include classical molecular mechanics simulations, quantum mechanical calculations, and molecular graphics & visualization. One key effort will be introduction into the usage of high performance computing systems. Such instruction on the use of the computational resources available at OSU will be provided in hands-on computer exercises that involve constructing, performing, and analyzing molecular simulations and calculations. May not be used for degree credit with CHEM 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5443 Mechanism and Structure in Organic Chemistry
Prerequisites: CHEM 3153 and CHEM 3553.
Description: Relationship of properties of organic compounds to their structure; mechanisms of organic reactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5563 Chemical Thermodynamics I
Prerequisites: CHEM 3553.
Description: Statistical and classical thermodynamics applied to chemical systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5623 Quantum Chemistry I
Prerequisites: CHEM 3553.
Description: Fundamentals of quantum mechanics, including classical mechanics, wave representation of matter, the Schroedinger equation, and atomic structure.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 5650 Selected Topics in Chemistry
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 5963 Advanced Inorganic Chemistry
Prerequisites: CHEM 5263.
Description: Inorganic reaction mechanisms, catalysis, electronic spectra of complexes, luminescence of inorganic compounds, lanthanide and actinide chemistry, introduction to biological inorganic chemistry. Previously offered as CHEM 5960.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6000 Doctoral Dissertation Research
Prerequisites: MS degree in chemistry or consent of instructor.
Description: Independent investigation under the direction and supervision of a major professor. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6010 Research Seminar
Prerequisites: Consent of instructor.
Description: Participation in departmental seminars on current topics in chemistry. One credit hour each fall and spring required for MS and PhD candidates with the exception of the first semester. Offered for variable credit, 1-20 credit hours, maximum of 20 credit hours.
Credit hours: 1-20
Contact hours: Contact: 1-20 Other: 1-20
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6011 Advanced Seminar
Prerequisites: CHEM 5011 or MS degree.
Description: Preparation and oral presentation of critical reviews on chemical subjects. Usually related to the student's research area. Completion of one credit hour required for the PhD degree.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Chemistry

CHEM 6050 Special Topics in Analytical Chemistry
Description: Supervised study of topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6103 Electroanalytical Chemistry
Prerequisites: CHEM 4024.
Description: The theory, practice and instrumentation in various areas of modern electroanalytical chemistry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6113 Analytical Spectroscopy
Prerequisites: CHEM 4024.
Description: Survey of selected topics in analytical applications of spectroscopic techniques. Fundamental concepts as well as current trends in research, including instrumentation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6223 Physical Polymer Science
Prerequisites: CHEM 5223 or equivalent.
Description: A study of the physical properties of macromolecular systems including polymer solutions, gels, bulk polymers and rubbers. The characterization of polymers based on their thermal, spectroscopic, microstructure and molecular masses is also discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6303 Physical Organic Chemistry
Prerequisites: BS/BA in chemistry, CHEM 3153, or equivalent.
Description: This course is an examination of the methods used in organic chemistry to probe mechanisms and reactive intermediates. Topics will include isotope effects, kinetics, linear free energy relationships, an introduction of orbital symmetry, rearrangements, stereo electronic effects, the generation and chemistry of carbenium ions, carbanions, carbenes, radicals, excited states, and strained molecules.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6420 Special Topics in Organic Chemistry
Prerequisites: CHEM 3153.
Description: Deals with topics not covered in other courses. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6453 Chemical Kinetics
Prerequisites: CHEM 3553.
Description: The kinetics of chemical reactions and their theoretical interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6553 Molecular Spectroscopy
Prerequisites: CHEM 5623.
Description: Spectra and structure of molecules.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6650 Selected Topics in Chemistry
Prerequisites: Consent of instructor.
Description: Supervised study of selected topics and fields not otherwise covered. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemistry

CHEM 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3813 or PHYS 3213, or consent of instructor.
Description: Advanced optics, including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Ultra short laser pulses. Same course as ECEN 6803 & PHYS 6803. Offered for fixed credit, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6810 Photonics II: THz photonics and THz time-domain spectroscopy
Prerequisites: CHEM 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultra short laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as ECEN 6810 & PHYS 6810. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6811 Photonics II: Thz Photonics and THz - TDS
Prerequisites: CHEM 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultrashort laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as ECEN 6811 and PHYS 6811.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemistry

CHEM 6820 Photonics II: Spectroscopy II
Prerequisites: CHEM 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as ECEN 6820 & PHYS 6820. Offered for fixed credit,1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6830 Photonics II: Spectroscopy III
Prerequisites: CHEM 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques, including subnanosecond detectors, picosecond streak cameras, and ultra fast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as ECEN 6830 & PHYS 6830. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6840 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and noncontact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as ECEN 6840 & PHYS 6840. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6850 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning tunneling microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as ECEN 6850 & PHYS 6850. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding/compression. Same course as ECEN 6860 & PHYS 6860. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6870 Photonics IV: Synthesis and Devices I
Prerequisites: CHEM 6803 and CHEM 6840.
Description: Preparation of functional nanostructures and related optical and electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as ECEN 6870 & PHYS 6870. Offered for variable credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: CHEM 6803.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall Effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence and electro-optics sampling. Same course as ECEN 6880 & PHYS 6880. Offered for fixed credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

CHEM 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: CHEM 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 clean rooms. Clean room operation, including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V, Hall and optical spectral measurement systems. Same course as ECEN 6890 & PHYS 6890. Offered for variable credit, 1 credit hour(s), maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Chemistry

Undergraduate Programs

- Biochemistry, BS (p. 1193)
- Chemistry (Approved by the American Chemical Society), BS (p. 1196)
- Chemistry, BS (p. 1199)
- Chemistry: Pre-Health, BS (p. 1202)
- Chemistry: Secondary Teacher Certification, BS (p. 1205)
- Medicinal Chemistry, BS (p. 1208)

Graduate Programs

Prerequisites

Students entering this program should have at least eight semester credit hours (or the equivalent) in general, analytical, organic and physical chemistry. The physical chemistry should have been based on mathematics through calculus.

Admission Requirements

For admission, a grade-point average of 3.00 or better is generally required. Deserving applicants with grade-point averages less than 3.00 are occasionally admitted under probationary conditions. Additional support of the application is sought in the form of three letters of recommendation. Graduate Record Examination scores are not required. Recommendations on admission to the Graduate College are made on behalf of the applicant by the departmental admission officer. Acceptance by a permanent advisor is not a prerequisite for admission to the program.

Degree Requirements

A more detailed description of the graduate study program in chemistry is available in a brochure supplied by the department upon request, or on the Internet at http://chemistry.okstate.edu. The requirements set forth below complement the general requirements stated in the "Graduate College (p. 2927)" section of the OSU Catalog. Attendance and participation in the departmental colloquia are required.

The Master of Science Degree

Students must complete at least 30 credit hours of graduate coursework in chemistry or related fields. Each student must present an acceptable thesis dealing with a research problem and pass a final oral examination

covering it and related material. Research on the thesis problem should be started as early as possible in the graduate program.

The Doctor of Philosophy Degree

Work is offered which leads to the degree with a focus in analytical, biological, environmental, inorganic, materials, medicinal, nanotechnology, organic physical, polymer or theoretical chemistry or chemical education. The student must pass a qualifying examination in his or her field of specialization. An acceptable dissertation must be presented which contains a substantial original contribution to the field of chemistry. The student must pass a final oral examination covering the dissertation and related material. The Doctor of Philosophy degree requires the completion of at least 90 semester credit hours of work beyond the bachelor's degree. The course requirements are determined by the student and his/her advisory committee consistent with departmental requirements.

Minors

- Chemistry (CHEM), Minor (p. 1211)

Faculty

Christopher J. Fennell, PhD—Associate Professor and Chair
Regents Professors: Frank D. Blum, PhD (Harrison I. Bartlett Chair); Richard A. Bunce, PhD; Barry Lavine, PhD
Professors: Sadagopan Krishnan, PhD; Nicholas Materer, PhD; Smita Mohanty, PhD; Jimmie Weaver, PhD; Charles S. Weinert, PhD
Associate Professors: Gabriel Cook, PhD; Martin McCullagh, PhD; Laleh Tahsini, PhD; Yolanda Vasquez, PhD
Assistant Professors: Jeannie Bolliger, PhD; David Miller, PhD; Spencer Pitre, PhD; Elijah Schnitzler, PhD
Teaching Associate Professors: Reza Latifi, PhD
Teaching Assistant Professors: Tracy Kerr, PhD; AJ Sona, PhD
Visiting Assistant Professor: Mira Kessler, PhD
Instructors: Iob Asfaha, PhD; Martha Halihan
Adjunct Faculty: Danny Maples, PhD

Biochemistry, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage and Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or MATH 2153	Calculus II (Q)	
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
Minimum GPA 2.00.		
BIOC 3713	Biochemistry I	3
BIOC 3723	Biochemistry and Molecular Biology Laboratory	3
BIOC 3813	Biochemistry II	3
BIOC 3223	Physical Chemistry for Biologists	3
or CHEM 3413	Physical Chemistry Applications	
or CHEM 3433	Physical Chemistry I	
BIOL 3204	Physiology	4
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 4990	Undergraduate Research in Chemistry	2
or CHEM 4482	Chemical Research & Literature Review	
or BIOC 4990	Undergraduate Research	
or MICR 4990	Special Problems	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
MICR 3033	Cell and Molecular Biology	3
Additional Requirements		
Select 9 hours of the following:		9
BIOC 3153	Synthetic Biology	
BIOC 4113	Molecular Biology	
BIOC 4213	Disease and Metabolism	
BIOC 4883	Senior Seminar in Biochemistry	
BIOL 3214	Human Anatomy	
BIOL 4073	Principles of Neuroscience	
BIOL 4253	Pharmacology	
BIOL 4363	Principles of Toxicology	
CHEM 4023	Modern Methods of Chemical Analysis	
CHEM 4033	Forensic Chemistry	

CHEM 4123	Biomolecular Chemistry and Function
CHEM 4313	Medicinal Organic Chemistry
MICR 3223	Advanced Microbiology
MICR 3253	Immunology
MICR 4053	Pathogenic Microbiology
MICR 4123	Virology
MICR 4233	Advanced Cell and Molecular Biology
MICR 4423	Antibiotics and Antibiotic Resistance
With approval from the advisor and department head, maximum of 30 hours of science courses from an accredited doctoral health program may be substituted for major requirements other than BIOC 3713 Biochemistry I, BIOC 3723 Biochemistry and Molecular Biology Laboratory, BIOC 3813 Biochemistry II.	
Hours Subtotal	**53**
Electives	
Select 12 hours	12
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 6 additional upper-division hours	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**12**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all BIOC courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education, College/Departmental and/or Elective courses		7
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
General Education and/or College/Departmental courses		6
	Hours	**14**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
MICR 3033 or PBIO 2403	Cell and Molecular Biology or Introduction to Plant Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
General Education, Major Requirements, or Elective course		3
	Hours	**15**
Junior		
Fall		
BIOC 3713	Biochemistry I	3
BIOL 3023 or ANSI 3423 or PLNT 3554	General Genetics or Animal Genetics or Plant Genetics and Biotechnology	3
PHYS 1214	College Physics II (LN)	4
College and Elective courses		6
	Hours	**16**
Spring		
BIOC 3813	Biochemistry II	3
BIOL 3204 or BIOL 1604 or PBIO 1404	Physiology or Animal Biology or Plant Biology (LN)	4
General Education, Major Related, or Elective courses		8
	Hours	**15**
Senior		
Fall		
BIOC 3223 or CHEM 3413 or CHEM 3433	Physical Chemistry for Biologists or Physical Chemistry Applications or Physical Chemistry I	3
CHEM 2113	Principles of Analytical Chemistry	3
Major Related, College/Departmental, and/or Elective courses		9
	Hours	**15**
Spring		
CHEM 4990	Undergraduate Research in Chemistry	2
Select 13 hours in remaining Major Related and Elective courses		13
	Hours	**15**
	Total Hours	**120**

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Speak with your academic advisor about pairing General Education (H) and (S) courses with General Education (G) and Diversity (D) dimensions.

Chemistry (Approved by the American Chemical Society), BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), of (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
or MATH 2233	Differential Equations	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**14**
Major Requirements		
Minimum major GPA 2.50. Minimum grade of "C" in each course in Chemistry numbered 2000 or above. Minimum 2.0 GPA in all CHEM courses.		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3353	Descriptive Inorganic Chemistry	3
or CHEM 3363	Bioinorganic Chemistry	
CHEM 3433	Physical Chemistry I	3
CHEM 3532	Physical Chemistry Laboratory	2
CHEM 3553	Physical Chemistry II	3
or CHEM 4433	Computational Chemistry and Molecular Modeling	
CHEM 4022	Modern Methods of Chemical Analysis Laboratory	2
CHEM 4023	Modern Methods of Chemical Analysis	3
or CHEM 4033	Forensic Chemistry	
CHEM 4322	Advanced Organic Chemistry Laboratory	2
or CHEM 4313	Medicinal Organic Chemistry	
CHEM 4333	Inorganic Chemistry I	3
CHEM 4990	Undergraduate Research in Chemistry (2 hours)	2
BIOC 3653	Survey of Biochemistry	3
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
Hours Subtotal		**47**
Electives		
Select 19 hours		19
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Advanced CHEM and MATH courses recommended.		
Hours Subtotal		**19**
Total Hours		**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education, College/Departmental, and/or Elective courses		6
	Hours	**14**
Spring		
CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4

General Education courses		3
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
MATH 2163 or MATH 2233	Calculus III or Differential Equations	3
PHYS 2014	University Physics I (LN)	4
General Education, College/Departmental and/or Elective courses		6
	Hours	**16**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 2114	University Physics II (LN)	4
General Education, College/Departmental, and/or Elective courses		6
	Hours	**15**
Junior		
Fall		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3433	Physical Chemistry I	3
General Education, College/Departmental and/or Elective courses		6
	Hours	**14**
Spring		
BIOC 3653	Survey of Biochemistry	3
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3353 and CHEM 3363 offered every other spring semester		
Select one of the following:		5
CHEM 3553 & CHEM 3532	Physical Chemistry II and Physical Chemistry Laboratory	
CHEM 4023 & CHEM 4022	Modern Methods of Chemical Analysis and Modern Methods of Chemical Analysis Laboratory	
CHEM 3553 & 3532 and CHEM 4023 & 4022 offered every other spring semester		
CHEM 4433 & CHEM 4033 offered in alternating Spring semesters as alternatives to CHEM 3553 and CHEM 4023.		
General Education, College/Departmental, and/or Elective courses		5
	Hours	**16**
Senior		
Fall		
CHEM 4322 or CHEM 4313	Advanced Organic Chemistry Laboratory or Medicinal Organic Chemistry	2
CHEM 4322 and CHEM 4313 offered every other fall semester		
CHEM 4333	Inorganic Chemistry I	3
CHEM 4990	Undergraduate Research in Chemistry	1
Elective courses		9
	Hours	**15**
Spring		
Select one of the following:		5
CHEM 4023 & CHEM 4022	Modern Methods of Chemical Analysis and Modern Methods of Chemical Analysis Laboratory	
CHEM 3553 & CHEM 3532	Physical Chemistry II and Physical Chemistry Laboratory	
CHEM 4023 & 4022 and CHEM 3553 & 3532 offered every other spring semester		
CHEM 4433 & CHEM 4033 offered in alternating Spring semesters as alternatives to CHEM 3553 and CHEM 4023		
CHEM 4990	Undergraduate Research in Chemistry	1
Elective courses		9
	Hours	**15**
	Total Hours	**120**

Chemistry, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), of (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
or MATH 2233	Differential Equations	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**14**
Major Requirements		
Minimum major GPA 2.00.		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3353	Descriptive Inorganic Chemistry	3
or CHEM 3363	Bioinorganic Chemistry	
CHEM 3433	Physical Chemistry I	3
CHEM 3553	Physical Chemistry II	3
or CHEM 4433	Computational Chemistry and Molecular Modeling	
CHEM 4023	Modern Methods of Chemical Analysis	3
or CHEM 4033	Forensic Chemistry	
CHEM 4333	Inorganic Chemistry I	3
Select one of the following:		2
CHEM 3532	Physical Chemistry Laboratory	
CHEM 4022	Modern Methods of Chemical Analysis Laboratory	
CHEM 4123	Biomolecular Chemistry and Function	
CHEM 4322	Advanced Organic Chemistry Laboratory	
CHEM 4313	Medicinal Organic Chemistry	
CHEM 4990	Undergraduate Research in Chemistry	2
BIOC 3653	Survey of Biochemistry	3
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
Hours Subtotal		**43**
Electives		
Select 23 hours		23
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**23**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all CHEM courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education courses		6
	Hours	**14**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114		
CHEM 1515	Chemistry II (LN)	5

MATH 2153	Calculus II (Q)	3
General Education, College/Departmental, and/or Elective courses		3
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
MATH 2163 or MATH 2233	Calculus III or Differential Equations	3
PHYS 2014	University Physics I (LN)	4
General Education, College/Departmental, and/or Elective courses		4
	Hours	**14**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 2114	University Physics II (LN)	4
General Education, College, and Major courses		6
	Hours	**15**
Junior		
Fall		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3433	Physical Chemistry I	3
College and Elective courses		8
	Hours	**16**
Spring		
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3353 and CHEM 3363 offered every other spring		
CHEM 3553 or CHEM 4433 or CHEM 4023	Physical Chemistry II or Computational Chemistry and Molecular Modeling or Modern Methods of Chemical Analysis	3
CHEM 3553 and CHEM 4023 offered every other spring semester		
CHEM 4433 offered in same semesters as CHEM 4023		
Select one of the following:		2
CHEM 3532	Physical Chemistry Laboratory	
CHEM 4022	Modern Methods of Chemical Analysis Laboratory	
CHEM 4322	Advanced Organic Chemistry Laboratory (Fall only)	
CHEM 4990	Undergraduate Research in Chemistry	1
General Education, College/Departmental and/or Elective courses		6
	Hours	**15**
Senior		
Fall		
BIOC 3653	Survey of Biochemistry	3
CHEM 4333 or CHEM 4312	Inorganic Chemistry I or Inorganic Chemistry Laboratory	3
Elective courses		9
	Hours	**15**
Spring		
CHEM 4023 or CHEM 3553 or CHEM 4433	Modern Methods of Chemical Analysis or Physical Chemistry II or Computational Chemistry and Molecular Modeling	3
CHEM 4023 and CHEM 3553 offered every other spring semester		
CHEM 4023 offered in same semesters as CHEM 4433		
CHEM 4990	Undergraduate Research in Chemistry	1
Elective courses		12
	Hours	**16**
	Total Hours	**120**

Chemistry: Pre-Health, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), of (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
Minimum major GPA 2.00.		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3353	Descriptive Inorganic Chemistry	3
or CHEM 3363	Bioinorganic Chemistry	
CHEM 3413	Physical Chemistry Applications	3
Select one of the following:		3
CHEM 4023	Modern Methods of Chemical Analysis	
or CHEM 4033	Forensic Chemistry	
CHEM 4123	Biomolecular Chemistry and Function	
CHEM 4313	Medicinal Organic Chemistry	
CHEM 4333	Inorganic Chemistry I	
CHEM 4990	Undergraduate Research in Chemistry	2
or CHEM 4482	Chemical Research & Literature Review	
BIOC 3653	Survey of Biochemistry	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
Select 15 upper-division related hours of the following: [2]		15
ANSI 3423 or BIOL 3023 or BIOC, BIOL, CHEM, MICR		
Hours Subtotal		**51**
Electives [2]		
Select 14 hours		14
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 6 additional upper-division hours.		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Additional requirements for professional school admission exist. View Admission Requirement Sheets at http://prehealth.okstate.edu.		

Hours Subtotal	**14**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from advisor and department head, a maximum of 30 hours from an accredited doctoral health or law program may be used among upper-division related hours and electives.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all CHEM courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 2144	Calculus I (Q)	4

CHEM 1314	Chemistry I (LN)	4
General Education and Elective courses		7
	Hours	**15**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Major Related, College/Departmental, and Elective courses		7
	Hours	**15**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
Major Related, College/Departmental, and Elective courses		6
	Hours	**15**
Junior		
Fall		
BIOL 3023 or ANSI 3423	General Genetics or Animal Genetics	3
BIOL 3204	Physiology	4
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
STAT 3023 or STAT 2013 or STAT 4013	Statistical Reasoning for Medical Applications (Q) or Elementary Statistics (Q) or Statistical Methods I (Q)	3
	Hours	**14**
Spring		
BIOC 3653	Survey of Biochemistry	3
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3353 and CHEM 3363 offered every other spring semester		
CHEM 4990	Undergraduate Research in Chemistry	1
Major Related, College/Departmental, and Elective courses		9
	Hours	**16**
Senior		
Fall		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 4990	Undergraduate Research in Chemistry	1
Major Related and Elective courses		9
	Hours	**15**
Spring		
CHEM 3413	Physical Chemistry Applications	3
CHEM 4123	Biomolecular Chemistry and Function	3
Major and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Chemistry: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1,2]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [2]	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) [1,2]	4
PHYS 1114	College Physics I (LN) [2]	4
or PHYS 2014	University Physics I (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first year approved seminar course)	1
Arts & Humanities		
PHIL 3933	Creation and Evolution	3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN) [1,2]	5
PHYS 1214	College Physics II (LN) [2]	4
or PHYS 2114	University Physics II (LN)	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Chemistry Core		
Minimum GPA 2.50 and minimum grade of "C" or "P" in Chemistry Core		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3353	Descriptive Inorganic Chemistry	3
or CHEM 3363	Bioinorganic Chemistry	
CHEM 3413	Physical Chemistry Applications	3
CHEM 4990	Undergraduate Research in Chemistry	2
or CHEM 4482	Chemical Research & Literature Review	
BIOC 3653	Survey of Biochemistry	3
STAT 2013	Elementary Statistics (Q)	3
or STAT 4013	Statistical Methods I (Q)	
Secondary Education Professional Core		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom (6 hours) [3]	6

Hours Subtotal	**56**
Electives	
Select 11 hours	11
May need to include 6 hours of a foreign language. See note 3	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**11**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Minimum GPA 2.50 and minimum grade of "C" or "P."

3

Full admission to Professional Education required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
SMED 1012	Inquiry Approaches to Teaching	2
General Education courses		6
	Hours	**16**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
General Education courses		4
	Hours	**16**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
PHYS 1114	College Physics I (LN)	4
Major, College/Departmental, and Elective courses		8
	Hours	**15**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1214	College Physics II (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
General Education and College/Departmental courses		4
	Hours	**16**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
SPED 3202	Educating Exceptional Learners	2
Major, College/Departmental, and Elective courses		6
	Hours	**16**
Spring		
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3353 and CHEM 3363 offered every other spring semester		
CHEM 3413	Physical Chemistry Applications	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
Major and Elective courses		5
	Hours	**15**
Senior		
Fall		
BIOC 3653	Survey of Biochemistry	3
CHEM 4990	Undergraduate Research in Chemistry	2
PHIL 3933	Creation and Evolution	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
Major and Elective courses		3
	Hours	**17**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Medicinal Chemistry, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), of (F).		0
Subtotal Hours		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 3023	Statistical Reasoning for Medical Applications (Q)	
or MATH 2153	Calculus II (Q)	
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Subtotal Hours		**15**
Major Requirements		
Minimum major GPA 2.00.		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3363	Bioinorganic Chemistry	3
or CHEM 3353	Descriptive Inorganic Chemistry	
Select three hours from the following:		3
CHEM 3413	Physical Chemistry Applications	
CHEM 3433	Physical Chemistry I	
BIOC 3223	Physical Chemistry for Biologists	
CHEM 4023	Modern Methods of Chemical Analysis	3
or CHEM 4033	Forensic Chemistry	
CHEM 4022	Modern Methods of Chemical Analysis Laboratory	2
CHEM 4123	Biomolecular Chemistry and Function	3
CHEM 4313	Medicinal Organic Chemistry	3
or CHEM 4322	Advanced Organic Chemistry Laboratory	
or BIOL 4253	Pharmacology	
CHEM 4990	Undergraduate Research in Chemistry	2
or CHEM 4482	Chemical Research & Literature Review	
BIOC 3653	Survey of Biochemistry	3
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
BIOL 3204	Physiology	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
Subtotal Hours		**51**
Electives		**14**
May need to include 6 hours of a foreign language (see note 3.).		
May need to include 6 hours upper-division general education major department (see note 2.c.) and 12 additional upper-division hours.		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Suggested courses:		

MICR 3033	Cell and Molecular Biology	
MICR 3253	Immunology	
MICR 4053	Pathogenic Microbiology	
PSYC 1113	Introductory Psychology (S)	
or SOC 1113	Introductory Sociology (S)	
Subtotal Hours		**14**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements:

- See the College of Arts and Sciences Requirements.
- Minimum 2.00 GPA in all CHEM courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be applied to degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education and College courses		6
	Hours	**14**
Spring		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
Students who wish to continue with Calculus II should plan to take MATH 2153		
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		3
	Hours	**15**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
MICR 3033	Cell and Molecular Biology (recommended elective)	3
PHYS 1214 or PHYS 2014	College Physics II (LN) or University Physics I (LN)	4
General Education, College/Departmental, and Elective courses		3
	Hours	**15**
Junior		
Fall		
BIOL 3023 or ANSI 3423	General Genetics or Animal Genetics	3
BIOL 3204 or BIOL 1604 or PBIO 1404	Physiology or Animal Biology or Plant Biology (LN)	4
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
College and Elective courses		3
	Hours	**15**
Spring		
BIOC 3653 or MICR 3223	Survey of Biochemistry or Advanced Microbiology	3
CHEM 3413	Physical Chemistry Applications	3
Select one of the following		5
CHEM 4023 & CHEM 4022	Modern Methods of Chemical Analysis and Modern Methods of Chemical Analysis Laboratory	
CHEM 3553 & CHEM 3532	Physical Chemistry II and Physical Chemistry Laboratory	
CHEM 4023 & CHEM 4022 and CHEM 3553 & CHEM 3532 offered every other spring semester		
College and Elective courses		3
	Hours	**14**
Senior		
Fall		
CHEM 4313 or CHEM 4322 or BIOL 4253	Medicinal Organic Chemistry or Advanced Organic Chemistry Laboratory or Pharmacology	3
CHEM 4313 and CHEM 4322 offered every other fall semester		
CHEM 4990	Undergraduate Research in Chemistry	1
STAT 3023/2013/4013	Statistical Reasoning for Medical Applications (Q)	3
College and Elective courses		9
	Hours	**16**
Spring		
CHEM 4123	Biomolecular Chemistry and Function (offered every other spring semester)	3
CHEM 3363 or CHEM 3353	Bioinorganic Chemistry or Descriptive Inorganic Chemistry	3
CHEM 3363 and CHEM 3353 offered every other spring semester		
CHEM 4990	Undergraduate Research in Chemistry	1
Major and Elective courses		9
	Hours	**16**
	Total Hours	**120**

Chemistry (CHEM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sheri Orr, 404 NRC, 405-744-3729

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 26

Code	Title	Hours
Minor Requirements		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
CHEM 2113	Principles of Analytical Chemistry	3
Subtotal Hours		**12**
Choose 1 of the following: [1]		*5-8*
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
Select 6 or 9 hours from the following to equal a total of 26 hours: [1]		*6-9*
BIOC 3713	Biochemistry I	
or BIOC 3653	Survey of Biochemistry	
CHEM 3353	Descriptive Inorganic Chemistry	
CHEM 3363	Bioinorganic Chemistry	
CHEM 3433	Physical Chemistry I	
or CHEM 3413	Physical Chemistry Applications	
CHEM 3553	Physical Chemistry II	
CHEM 4023	Modern Methods of Chemical Analysis	
CHEM 4123	Biomolecular Chemistry and Function	
CHEM 4313	Medicinal Organic Chemistry	
CHEM 4333	Inorganic Chemistry I	
CHEM 4433	Computational Chemistry and Molecular Modeling	
CHEM 4650	Selected Topics in Chemistry	
CHEM 4990	Undergraduate Research in Chemistry	
Total Hours [1]		**26**

1

If 5-hour option is chosen, then select 9 hours from the list; if 8-hour option is chosen, then select 6 hours from the list.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Communication Sciences and Disorders

The Department of Communication Sciences and Disorders offers a Certificate program in Communication Sciences and Disorders, a minor in Communication Sciences and Disorders, a Bachelor of Science degree in Communication Sciences and Disorders, and a Master of Science degree in Speech-Language Pathology.

- The certificate is available to students that have completed a bachelor's degree in another area and are wanting to apply to a graduate program in speech-language pathology and audiology or begin the pathway to become a speech-language pathology assistant. Students can enroll in the certificate program while pursuing their undergraduate degree but they are expected to complete their degree prior to the completion of the certification program.
- The minor program is offered for students who are interested to know more about the professions of Speech-Language Pathology and Audiology. The minor is also intended to benefit students who are receiving training in early childhood education, special education, or trainee teachers to know more about speech and language development and disorders.
- The undergraduate program focuses on the scientific study of normal and disordered communication processes. Emphasis is placed on developing background knowledge in phonetics, speech and language development, hearing and its disorders, anatomy and physiology, speech science, and the neurogenic bases of communication. During the senior year, students are introduced to a variety of communication disorders providing a pre-professional background for students interested in pursuing a Master of Science degree. All students participate in 25 hours of applied clinical observation.
- The graduate (M.S.) program in Speech-Language Pathology is the entry-level degree in the profession. The primary goal of our graduate program is to train students to be excellent clinicians who are capable of assessing and treating a range of communication disorders.

Courses

CDIS 1013 Brain Works (N)
Description: This course will teach students how to tap into their brain power to be a successful student. Basic neural anatomy and physiology, techniques to assist in test taking, socialization, critical thinking, memory, stress relief, and daily problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Natural Science Reasoning

CDIS 2013 Facts and Fiction About Communication Disorders (D)
Description: Overview and examination of communication disorders as portrayed in media (movies, books, etc.), dispelling myths and misconceptions. Discussion and practice with ways to be a respectful, successful communicator with people of different backgrounds, life experiences, and communication challenges.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Diversity

CDIS 2033 Deaf Communication and Education (D)
Description: Issues in communication and education for children with hearing loss (communication options, schooling options, assistive technology, cochlear implants, language development, literacy, socializing) and introduction to Deaf culture and American Sign Language. Awareness of the breadth of challenges and options facing parents and educators of children with hearing loss. Previously offered as CDIS 4033, CDIS 4132, and SPTH 4132.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Diversity

CDIS 2223 Speech and Language Development
Description: Discussion of current theories and research on typical language development over the lifespan. Normal acquisition of language (e.g. phonology); speech and language milestones; biological, cognitive, and social bases; description of dialect variations, second language acquisition; atypical language development; and relationship between spoken and written language. Previously offered as CDIS 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 2313 Introduction to Communication Disorders
Description: Introduction of communication impairments across the lifespan (speech, language and hearing disorders). Including their neuromuscular bases; assessment and treatment; and professions related to assessment and treatment. Open to all university students. Previously offered as CDIS 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 2890 Honors Add-on
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Honors Credit

CDIS 3113 Communication Disorders in Children
Prerequisites: A grade of "C" or higher in CDIS 2313 and (CDIS 2223 or CDIS 3223).
Description: Assessment and treatment of childhood communication disorders including autism, cerebral palsy, articulation and phonological disorders (speech sounds and their normal acquisition, common phonological errors), language disorders, fluency disorders, nonverbal and minimally verbal children, children using AAC, voice disorders and communication disorders in school-age children. Same course as CDIS 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3123 Audiology Diagnosis
Prerequisites: CDIS 3203 with a grade of "C" or higher.
Description: Introduction to the profession of audiology, anatomy and physiology of the auditory system, types of hearing loss, hearing disorders, and clinical tests used in the diagnosis of children and adults with hearing loss. Previously offered as SPTH 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3203 Anatomy and Physiology of the Speech Mechanism
Prerequisites: A grade of "C" or higher in BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Overview of the structure and function of the skeletal, muscular, respiratory, phonatory, articulatory, auditory, and nervous system involved in the speech communication processes. Previously offered as CDIS 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3313 Phonetics
Description: The analysis and description of speech at the segmental and suprasegmental levels. Development of students' perceptual and analytical skills in speech sound production. Practice using the International Phonetic Alphabet for broad and narrow transcription. Overview of the speech production mechanism and process. Previously offered as CDIS 2213 and SPTH 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 3413 Introduction to Research
Prerequisites: A grade of "C" or higher in STAT 2013, STAT 2053 or STAT 4053.
Description: Introduction to research process and evidence based practice in communication disorders, including how to locate and evaluate research articles, how to find possible research topics, issues related to conduction of experiment, and how to determine treatment effectiveness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4010 Clinic Practicum
Prerequisites: Consent of instructor.
Description: Supervised clinical practicum or internship in speech-language pathology and audiology. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4013 Diagnostics
Prerequisites: A grade of "C" or higher in CDIS 3213 and CDIS 3223.
Description: This course addresses principles and methods of assessment and diagnostics for people with communication disorders. The course includes test construction and design, reliability, validity, and other issues related to criterion and norm-referenced testing. Issues regarding diagnostic criteria and classification systems of communication disorders are also addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4023 Clinical Methods and Issues
Prerequisites: A grade of "C" or higher in CDIS 2213, CDIS 2223 and CDIS 3313.
Description: Fundamental process and procedures of clinical practicum, report writing, goal selection; production, assessment and recording of speech and language behaviors; development of interpersonal skills with clients, families, and other professionals; problem solving skills; professional organization and credentialing requirements and includes clinical observation. Previously offered as CDIS 4022.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4043 Audiology Clinical Methods
Description: Training in audiology clinic methods. Focus on roles, regulations, and responsibilities of audiology assistants. Includes audiology basics, providing patient care, clinic maintenance, ethics, hearing loss prevention, amplification and device maintenance, professional practices in health care and education settings, and communication/collaboration/teaming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4073 Introduction to Sociolinguistics
Description: The study of how languages and varieties vary in social contexts and how they are regarded. Same course as ENGL 4073. May not be used for degree credit with ENGL 5173 or CDIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4133 Audiology Treatment
Prerequisites: A grade of "C" or higher in CDIS 3123.
Description: Review of hearing aids, implantable hearing devices, medical management of hearing loss, aural rehabilitation, and other clinical treatments for children and adults with hearing loss. Previously offered as SPTH 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4313 Speech Science
Prerequisites: A grade of "C" or higher in CDIS 3313, CDIS 3203 and any PHYS course.
Description: Scientific bases of the acoustic parameters, the perceptual and productive processes of speech, and the interrelationships of those factors during speech communication. Previously offered as SPTH 4313. May not be used for degree credit with CDIS 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4423 Neural Bases of Speech and Language (N)
Prerequisites: A grade of "C" or higher in CDIS 3203.
Description: Neuroanatomy and neuro-physiological processes related to speech and language. Including basic anatomy of the central and peripheral nervous systems and the physiological processes involved in neuromotor control and neuronal function related specifically to speech and language. Previously offered as CDIS 4412.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D
General Education and other Course Attributes: Natural Science Reasoning

CDIS 4433 Communication Disorders in Adults
Prerequisites: A grade of "C" or higher in CDIS 3203 and CDIS 4423.
Description: A review of language disorders and changes occurring with both normal aging and common neurological diseases and traumas, with focus on cerebral vascular accidents. Neurophysiological bases and etiology are presented as well as evaluation and treatment of aphasia and right hemisphere disorders, dementia and traumatic brain injury.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4542 Intro to Dyslexia
Description: Definition, myths and facts of dyslexia. Prevalence, risk factors, key characteristics, impact. Consensus findings on literacy and the science of reading (e.g., National Reading Panel, National Early Literacy Panel, IES Practice Guides). May not be used for degree credit with CDIS 5542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4552 Language Processing for Reading and Writing
Description: Comprehensive exploration of the language processing requirements essential for proficient reading and writing. Typical development of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression. Detail on domains of language, including phonology, morphology, syntax, semantics, and pragmatics, to understand their significance in reading and writing proficiency. May not be used for degree credit with CDIS 5552.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4562 Dyslexia and the Brain
Description: Neurobiological underpinnings of reading. Cognitive, neural, genetic, and environmental factors that contribute to both typical and atypical reading development. Identification and function of neural circuits involved in reading. Neurobiological mechanisms underlying reading disorders such as dyslexia. Recommended prep: CDIS 4542/5542 or other background/experience with foundations of reading, dyslexia, or neural language processing. May not be used for degree credit with CDIS 5562.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4572 Assessment of Dyslexia
Prerequisites: Grade of "C" or better in CDIS 4542 or CDIS 5542.
Description: Methods to assess and support students with reading difficulties. Assessment tools and techniques, including screening, progress-monitoring, diagnostic, and outcome assessments. Practice reading and interpreting common diagnostic tests and informal diagnostic surveys to assess phonological and phoneme awareness, decoding skills, fluency, comprehension, spelling, and writing. May not be used for degree credit with CDIS 5572.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4900 Undergraduate Research
Prerequisites: Consent of instructor.
Description: Research in speech, language, and hearing sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4970 Special Topics in CSD
Prerequisites: Consent of instructor.
Description: Individual and group investigations of topics in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 4980 Independent Study in CDIS
Prerequisites: Junior standing and consent of instructor.
Description: Directed readings or research in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member. Required for graduation with departmental honors in communication sciences and disorders.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Communications Sci & D
General Education and other Course Attributes: Honors Credit

CDIS 5000 Masters Research & Thesis
Prerequisites: Consent of graduate faculty.
Description: Research in speech, language and hearing sciences and disorders. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5013 Evidence-Based Practice
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders or consent of instructor.
Description: Principles and procedures of evidence-based practice in communication sciences and disorders; experience finding and evaluating systematic research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5113 Developmental Language Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of developmental language disorders from birth to the early school years. Coverage of the continuum of naturalness from play-based therapy to clinician-directed therapy. The course includes current standards of practice as well as attention to changes derived from evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5143 Speech Sound Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of speech sound disorders, including phonological disorders, articulation disorders, and childhood apraxia of speech. Affected individuals include toddlers, children, and young adults. The course includes current standards of practice as well as attention to changes derived from evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5153 Neurological Communication Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Communication changes occurring with aging and common neurological diseases and trauma. Neurophysiological bases and etiology. Evaluation and treatment of aphasia and right hemisphere disorders. Previously offered as CDIS 5152.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5163 Dysphagia
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Anatomy and neurophysiology of the swallowing mechanism in relation to pediatric and adult dysphagia. Evaluation, diagnosis and treatment of swallowing problems in children and adults including videofluoroscopic training with case studies. The first two-thirds of the course focus on adult dysphagia and the latter one third on pediatric dysphagia. Previously offered as CDIS 5160.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5183 Traumatic Brain Injury and Dementia
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Nature, evaluation and treatment of acquired cognitive communication disorders secondary to traumatic injury or dementia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5193 Motor Speech Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Nature, evaluation and treatment of neurologically-based motor speech disorders such as dysarthria and apraxia. Previously offered as CDIS 5172.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5210 Advanced Practicum
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, and consent of instructor.
Description: Practical experience for the advanced student on or off campus. Offered for variable credit, 1-6 credit hours, maximum of 15 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5243 Disorders of Literacy and Complex Language
Prerequisites: A grade of "B" or higher in CDIS 5113 and graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Assessment and treatment of literacy disorders and disorders of complex oral language. Clients include school-aged children, adolescents, and young adults. Students will make connections between literacy conventions and the structure of spoken language including complex phrases and sentences. The course includes current standards of practice as well as attention to changes derived from evidence-based practice. Previously offered as CDIS 5242.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5313 Speech Science
Description: Scientific bases of the acoustic parameters, the perceptual and productive processes of speech, and the interrelationships of those factors during speech communication. Previously offered as SPTH 4313. May not be used for degree credit with CDIS 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5330 Voice and Resonance Disorders
Description: This course is designed for students to have an advanced knowledge for the assessment and treatment of vocal and resonance disorders. Knowledge of the vocal mechanism is a pre-requisite of evaluating and treating these disorders and will be the emphasis in the early portion of this course. Previously offered as CDIS 5333 and 5334.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5340 Counseling for Speech-Language Pathologists
Description: This course is designed specifically for speech-language pathologists and presents the concepts of counseling as they relate to the assessment and treatment of individuals with communicative disorders, their families, and others in their environment. The goal is to make the connection between the theories of communication disorders and their application for individuals with communication disorders. Topics include the importance of a client-clinician relationship, efficacy beyond traditional measures, practice-based evidence, making change, diversity, and ethics. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5420 Augmentative/Alternative Communication
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Evaluation and management of communication disorders in individuals requiring specially adapted educational intervention programs. Adaptive communication technologies. Previously offered as CDIS 5423.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5433 Cleft Palate
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Recent research in the etiology, assessment and management of communicative disorders in individuals with cleft palate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5533 Autism Spectrum Disorder: Assessment & Intervention of Communication Deficits
Prerequisites: Graduate standing or permission of instructor.
Description: Assessment and treatment of communication deficits associated with autism spectrum disorder. Etiologies and recent trends in autism spectrum disorder will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5542 Intro to Dyslexia
Description: Definition, myths and facts of dyslexia. Prevalence, risk factors, key characteristics, impact. Consensus findings on literacy and the science of reading (e.g., National Reading Panel, National Early Literacy Panel, IES Practice Guides). May not be used for degree credit with CDIS 4542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5552 Language Processing for Reading and Writing
Description: Comprehensive exploration of the language processing requirements essential for proficient reading and writing. Typical development of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression. Detail on domains of language, including phonology, morphology, syntax, semantics, and pragmatics, to understand their significance in reading and writing proficiency. May not be used for degree credit with CDIS 4552.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5562 Dyslexia and the Brain
Description: Neurobiological underpinnings of reading. Cognitive, neural, genetic, and environmental factors that contribute to both typical and atypical reading development. Identification and function of neural circuits involved in reading. Neurobiological mechanisms underlying reading disorders such as dyslexia. Recommended prep: CDIS 4542/5542 or other background/experience with foundations of reading, dyslexia, or neural language processing. May not be used for degree credit with CDIS 4562.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5572 Assessment of Dyslexia
Prerequisites: Grade of "C" or better in CDIS 4542 or CDIS 5542
Description: Methods to assess and support students with reading difficulties. Assessment tools and techniques, including screening, progress-monitoring, diagnostic, and outcome assessments. Practice reading and interpreting common diagnostic tests and informal diagnostic surveys to assess phonological and phoneme awareness, decoding skills, fluency, comprehension, spelling, and writing. May not be used for degree credit with CDIS 4572.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5710 Special Topics in Communication Disorders
Prerequisites: Consent of instructor.
Description: Individual and group investigations of problems in communication sciences and disorders. Repeatable with substantial change in content. Offered for variable credit, 2-3 credit hours, maximum of 12 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 2-3 Contact: 2-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5713 Fluency Disorders
Prerequisites: Graduate standing in the Department of Communication Sciences and Disorders, or consent of instructor.
Description: Current research regarding the nature of etiologies, evaluation and treatment of dysfluent speech in both children and adults. Previously offered as CDIS 4443 and SPTH 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5720 Seminar in Communication Sciences and Disorders
Prerequisites: Consent of instructor.
Description: Readings, discussion, and inquiry in communication disorders. Topics may include theory, research, or application to evaluation or treatment of one or multiple disorders. Repeatable with substantial change in content. Offered for variable credit, 2-3 credit hours, maximum of 12 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 2-3 Contact: 2-3
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5730 Independent Study in Communication Sciences and Disorders
Prerequisites: Graduate standing and consent of instructor.
Description: Directed readings or research in communication sciences and disorders. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

CDIS 5732 Professional Issues
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Communications Sci & D

CDIS 5760 Portfolio
Prerequisites: Graduate standing.
Description: Nature and preparation of professional portfolio with faculty guidance. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Communications Sci & D

Undergraduate Programs

- Communication Sciences and Disorders, BS (p. 1222)

Graduate Programs

The Master of Science degree program is designed to provide students with intensive coursework in the various communication disorders and with a wide variety of challenging clinical rotations both on and off campus. Research opportunities are available under the direction of the graduate faculty. Graduates are prepared to take positions in hospitals, community speech and hearing centers, private practices, schools and other related settings, and to pursue additional graduate education at the doctoral level. All graduates meet the academic and clinical requirements for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association, and the Oklahoma license in Speech-Language Pathology. Additionally, many students elect to earn the state teaching certificate required to practice speech-language pathology in the Oklahoma school system. The program holds national accreditation from the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Prerequisites

Admission to the graduate program requires a bachelor's degree in Communication Sciences and Disorders, or an out-of-field bachelor's degree plus 24 hours of prerequisite coursework.

Admission Requirements

Applicants for admission are recommended to have a minimum grade-point average of 3.40 in the major, strong letters of recommendation from those familiar with the student's previous academic background, a minimum combined verbal and quantitative GRE score of 296, a minimum verbal GRE score of 153, and a minimum analytical writing score of 3.5. Students not meeting the above requirements may be admitted on a provisional basis. Admission is competitive, and all application materials must be received by January 15 of each calendar year for summer or fall admission. Completed applications must include: an online application, GRE scores, three letters of recommendation, transcripts from all undergraduate institutions, and a personal statement indicating why the applicant desires to be a speech-language pathologist. In addition, all applicants must have completed an acoustics course and a neural anatomy and physiology course having earned a grade of "B" or better. Additional national certification requirements must be completed before enrollment in graduate coursework. Those requirements include the following: physics, biology, psychology and statistics.

International students follow the same application procedure as U.S. students with one addition. If English is not the student's native language he or she is required to score a minimum of 79 (internet-based) or 550 (paper-based) on the Test of English as a Foreign Language (TOEFL) and a minimum of 26 (internet-based) on the speaking portion of the TOEFL (IBT). It is especially important that students have readily intelligible spoken English, as they will be conducting therapy sessions in English. Additional Graduate College Requirements: Students who score a minimum of 42 on the combined Reading and Listening portions of the TOEFL (internet based) with a minimum score of 20 in each section are not required to enroll in remedial coursework. Remedial coursework includes enrollment in ENGL 0003 Academic English for Graduate Students during the first semester. The course carries a grade of S/U and may not be used toward minimum degree requirements. Students must enroll in ENGL 0003 Academic English for Graduate Students each semester until a grade of S is earned. Students who score less than 22 on the TOEFL Writing portion must enroll in ENGL 4893 during their first semester. ENGL 4893 carries graduate credit and may be used toward minimum degree requirements. A minimum grade of C is required. Both ENGL 0003 Academic English for Graduate Students and ENGL 4893 as applicable, must be listed on the student's Plan of Study.

Alternatively, an official IELTS, academic stream, examination with a minimum overall band score of 6.5 is required for admission to the graduate program. However, a minimum IELTS speaking score of 8.5 is required for clinical assignments. Either examination must have been taken within the last two years. Students who have completed the IELTS- or the paper-based TOEFL have different requirements as stated by the OSU Graduate College. To ensure that graduate students are sufficiently skilled at written English, the Test of English Language Proficiency (TELP) is required for all graduate students who took the IELTS or paper-based (PBT) TOEFL test. The TELP must be taken before the student's first semester enrollment. The International Student Services Office is available on campus to assist international students.

Financial Aid

All admitted students will be considered for graduate teaching assistantships and fee waiver scholarships. Graduate teaching assistants qualify for tuition waiver.

Program Requirements

Requirements for the master of science degree include 36 credit hours of academic courses and 15 credit hours of clinical practicum. The program typically can be completed in two academic years including one summer semester.

Examinations

Students enrolled in a thesis option complete a master's thesis under the direction of a member of the graduate faculty. Students enrolled in a non-thesis option complete a comprehensive examination.

Certificates

Undergraduate Certificates

- Audiology Assistants, UCRT (p. 1220)
- Communication Sciences and Disorders, UCRT (p. 1225)
- Dyslexia, UCRT (p. 1226)
- Speech-Language Pathology Assistants, UCRT (p. 1227)

Graduate Certificate

- Dyslexia, GCRT (p. 3072)

Minors

The Minor program in Communication Sciences and Disorders is offered for students who are interested to know more about the professions of Speech-Language Pathology and Audiology. The minor is also intended to benefit students who are receiving training in early childhood education, special education, or trainee teachers to know more about speech and language development and disorders. This will help them to identify kids with speech and language deficits in their classes and make appropriate referrals to speech-language pathologists and audiologists.

Curriculum:

- CDIS 2033- Deaf Communication & Education
- CDIS 2313 – Introduction to Communication Disorders
- CDIS 2223 – Speech and Language Development
- CDIS 3113 – Communication Disorders in Children*
- CDIS 3123 – Audiology Diagnosis

***CDIS 2313 and CDIS 2223 are pre-requisites for CDIS 3113**

Minimum grade and/or GPA for minor courses: 2.75 GPA and a grade of "C" or higher

- Communication Sciences and Disorders (CDIS), Minor (p. 1221)

Faculty

Peter Richtsmeier, PhD—Associate Professor and Interim Department Head
Professor: John Tetnowski, PhD, CCC-SLP
Associate Professor: Sabiha Parveen, PhD, CCC-SLP; Valerie Freeman, PhD
Assistant Professors: Yu Zhang, PhD
Clinical Faculty: Lisa Ashley, MEd, CCC-SLP; Kristi Carpenter, MS, CCC-SLP; Tori Courouleau, AuD, CCC-A; Sherri Norton, MA, CCC-SLP; Caryl Hennen, MEd, CCC-SLP; Mandie Harris, MA, CCC-SLP; Leslie Baldwin, MA, CCC-SLP
Teaching Faculty: Shenbagavalli Mahalingam, PhD

Audiology Assistants, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
CDIS 3203	Anatomy and Physiology of the Speech Mechanism	3
CDIS 3123	Audiology Diagnosis	3
CDIS 4043	Audiology Clinical Methods	3
CDIS 4133	Audiology Treatment	3
CDIS 4010	Clinic Practicum [1]	4
Total Hours		**16**

1

In-person internship will be arranged for optional practicum.

Communication Sciences and Disorders (CDIS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA for minor courses: 2.75 GPA and a grade of "C" or higher.
Total Hours: 15

Code	Title	Hours
Course Requirements		
CDIS 2033	Deaf Communication and Education (D)	3
CDIS 2313	Introduction to Communication Disorders	3
CDIS 2223	Speech and Language Development	3
CDIS 3113	Communication Disorders in Children [1]	3
CDIS 3123	Audiology Diagnosis	3
Total Hours		**15**

1

CDIS 2313 and CDIS 2223 are pre-requisites for CDIS 3113.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Communication Sciences and Disorders, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Select one of the following:		4
PHYS 1014	Descriptive Physics (N)	
PHYS 1114	College Physics I (LN)	
PHYS 2014	University Physics I (LN)	
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		

Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.

Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
Select one of the following:		3
ENGL 4013	English Grammar	
ENGL 4033	Discourse Analysis	
or other Arts & Humanities course, see note 2.a.		
Natural & Mathematical Sciences		
Select 9 hours of the following:		9
CDIS 1013	Brain Works (N)	
PSYC 3073	Neurobiological Psychology (N)	
BIOL 3123	Human Heredity (N)	
or BIOL 3204	Physiology	
Other natural or mathematical sciences courses		
See note 2.b.		
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.75. Minimum grade of "C" in all CDIS courses		
CDIS 2223	Speech and Language Development	3
CDIS 2313	Introduction to Communication Disorders	3
CDIS 3113	Communication Disorders in Children	3
CDIS 3123	Audiology Diagnosis	3
CDIS 3203	Anatomy and Physiology of the Speech Mechanism	3
CDIS 3313	Phonetics	3
CDIS 3413	Introduction to Research	3
CDIS 4013	Diagnostics	3
CDIS 4023	Clinical Methods and Issues	3
CDIS 4133	Audiology Treatment	3
CDIS 4313	Speech Science	3
CDIS 4423	Neural Bases of Speech and Language (N)	3
CDIS 4433	Communication Disorders in Adults	3
EPSY 3413	Child and Adolescent Development	3
Select 3 hours of the following related courses:		3
CDIS 2013	Facts and Fiction About Communication Disorders (D)	
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	

HDFS 3123	Parenting (S)	
HDFS 3203	Children's Play: A World Perspective (G)	
HDFS 4413	Successful Aging (S)	
HDFS 4543	Intergenerational Relationships (S)	
PSYC 2583	Developmental Psychology (S)	
PSYC 3443	Psychopathology (S)	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4343	Language Development (S)	
PSYC 4483	Psychology of Parent Behavior (S)	
SOC 3993	Sociology of Aging (DS)	
Select 3 hours of the following multicultural courses:		3
CDIS 2033	Deaf Communication and Education (D)	
ANTH 3353	Cultural Anthropology (GS)	
CPSY 4443	Cultural Diversity in Professional Life (D)	
ENGL 4093	Language in America (DS)	
HDFS 4793	The Family: A World Perspective (GS)	
SOC 3523	Juvenile Delinquency (DS)	
SPCH 4753	Intercultural Communication (G)	
ENGL 4043	Teaching English to Speakers of Other Languages	
Hours Subtotal		**48**
Electives		
Select 18 hours		18
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 hour may need to be upper-division		
Students who desire to meet Teacher Education requirements should choose the following courses:		
SCFD 3223	Role of Teacher in American Schools (D)	
SPED 3202	Educating Exceptional Learners	
Also recommended:		
ASL 1713	American Sign Language I (F)	
or CDIS 2033	Deaf Communication and Education (D)	
CDIS 4980	Independent Study in CDIS	
SPCH 2713	Introduction to Speech Communication (S)	
Hours Subtotal		**18**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of

Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
General Education courses		13
	Hours	**16**
Spring		
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
General Education courses		10
	Hours	**14**
Sophomore		
Fall		
CDIS 2313	Introduction to Communication Disorders	3
CDIS 2223	Speech and Language Development	3
CDIS 3313	Phonetics	3
General Education courses		6
	Hours	**15**
Spring		
CDIS 3203	Anatomy and Physiology of the Speech Mechanism	3
CDIS 3413	Introduction to Research	3
PHYS 1014	Descriptive Physics (N)	4
College and Elective courses		5
	Hours	**15**
Junior		
Fall		
CDIS 3113	Communication Disorders in Children	3
CDIS 3123	Audiology Diagnosis	3
College and Elective courses		9
	Hours	**15**
Spring		
CDIS 4133	Audiology Treatment	3
CDIS 4023	Clinical Methods and Issues	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
CDIS 4313	Speech Science	3
CDIS 4423	Neural Bases of Speech and Language (N)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
CDIS 4013	Diagnostics	3
CDIS 4433	Communication Disorders in Adults	3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Communication Sciences and Disorders, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 38

Code	Title	Hours
Required Courses		
PHYS 1014	Descriptive Physics (N) [1]	4
or PHYS 1114	College Physics I (LN)	
or CHEM 1314	Chemistry I (LN)	
or CHEM 1215	Chemical Principles I (LN)	
PSYC 1113	Introductory Psychology (S) [1]	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
STAT 2013	Elementary Statistics (Q) [1]	3
CDIS 2223	Speech and Language Development	3
CDIS 3113	Communication Disorders in Children	3
CDIS 3123	Audiology Diagnosis	3
CDIS 3203	Anatomy and Physiology of the Speech Mechanism	3
CDIS 3313	Phonetics	3
CDIS 4023	Clinical Methods and Issues	3
CDIS 4313	Speech Science	3
CDIS 4423	Neural Bases of Speech and Language (N)	3
Total Hours		**38**

1

Indicates General Education courses.

Other Requirements

- The student must have a Bachelor's degree or is expected to complete a Bachelor's degree by the completion of certificate requirements.
- The student maintains a 2.75 to complete the certificate.
- No grade less than a "C" is earned in the major specific courses.
- Residency Requirement: The student must complete 18 hours or half of the total hours at Oklahoma State University in order to receive a certificate from OSU.

Dyslexia, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 17

Code	Title	Hours
CDIS 4542	Intro to Dyslexia	2
CDIS 4552	Language Processing for Reading and Writing	2
CIED 3293	Teaching Reading in the Elementary and Middle School	3
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	3
CDIS 4562	Dyslexia and the Brain	2
CDIS 4572	Assessment of Dyslexia	2
CIED 5493	Multisensory Phonics Instruction	3
Total Hours		**17**

Speech-Language Pathology Assistants, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 21

Code	Title	Hours
CDIS 2313	Introduction to Communication Disorders	3
CDIS 2223	Speech and Language Development	3
CDIS 3313	Phonetics	3
CDIS 3113	Communication Disorders in Children	3
CDIS 3203	Anatomy and Physiology of the Speech Mechanism [1]	3
CDIS 4433	Communication Disorders in Adults [2]	3
CDIS 4010	Clinic Practicum [3]	3
Total Hours		**21**

1

Prerequisite: BIOL 1111 & 1113 or BIOL 1114 (general education)

2

Prerequisite CDIS 3203 can be taken simultaneously. Prerequisite CDIS 4423 can be waived for certificate students.

3

Off-campus practicum internships must be in person and are typically arranged following completion of other coursework.

Computer Science

Computer Science is the discipline of “problem solving” using a computer. Consequently, individuals studying this field learn to decompose a problem into its salient parts (design), apply a variety of algorithmic techniques to address those parts (analyze), and then translate the algorithmic solutions into a format that the computer can understand (program). Professional computer scientists apply their knowledge to diverse fields of science, engineering, business, medicine, entertainment, and communications.

Professional computer scientists obtain a formal education through the BS, MS, or PhD degrees with many opportunities to specialize in areas such as computer security, artificial intelligence, big data analytics, or mobile app development, among others. The Computer Science Department at OSU offers two options for undergraduate studies. The ABET-accredited BS degree in Computer Science emphasizes developing programming skills backed by a deep foundation in the theoretical and mathematical tools needed to analyze algorithmic solutions. The BS Computer Science degree is also available online. On the other hand, the new BS in Applied Computer Programming focuses on software design and development with less attention to math and theory.

At the graduate level, students can obtain both an MS and PhD in CS at our Stillwater location. At the master’s level, students can choose either the thesis option for those interested in research or the non-thesis option for those interested in honing industry-ready skills. Our PhD program is designed for students interested in finding research-oriented university or industry positions after graduation. A 4+1 option is available to OSU undergraduates which helps them obtain an MS sooner by applying 9 hours of computer science courses to both their BS and MS programs.

Courses

CS 1003 Computer Proficiency
Description: For students with minimal personal computer skills. Use of Internet and productivity software such as word processing, spreadsheets, databases, and presentation software. The ability to log on to a personal computer, access the OSU network, and access OSU Web sites is assumed. Previously offered as CS 1002.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 1013 Computer Science Principles
Description: Computing as a creative human activity, abstraction to reduce detail and focus on concepts relevant to understanding and solving problems, describing data and information to facilitate the creation of knowledge, discuss algorithms as tools for developing and expressing solutions to computational problems, use programming is a creative process that produces computational artifacts; and discuss digital devices, systems, and the networks that interconnect them.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 1103 Computer Programming (Q)
Prerequisites: MATH 1513 or higher, each with a grade of "C" or better.
Description: Introduction to computer programming using a high-level computer language, including subprograms and arrays. Principles of problem solving, debugging, documentation, and good programming practice. Elementary methods of searching and sorting. No prior programming or computing experience needed. Previously offered as CS 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science
General Education and other Course Attributes: Analytical & Quant Thought

CS 1113 Computer Science I (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better.
Description: Introduction to computer science using a block-structured high-level computer language, including subprograms, arrays, recursion, records, and abstract data types. Principles of problem solving, debugging, documentation, and good programming practice. Elementary methods of sorting and searching. Use of operating system commands and utilities. Previously offered as CS 2113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Computer Science
General Education and other Course Attributes: Analytical & Quant Thought

CS 2133 Computer Science II
Prerequisites: CS 1113 with a grade of "C" or better.
Description: Recursive algorithms. Intermediate methods of searching and sorting. Mathematical analysis of space and time complexity, worst case, and average case performance. Course previously offered as CS 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 2351 Unix Programming
Prerequisites: CS 1113 or EET 2303 with a grade of "C" or better.
Description: The UNIX programming system. The programming environment. The UNIX file system and the shell. Use of pipes and filters. Course previously offered as CS 3451.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Computer Science

CS 2433 C/C++ Programming
Prerequisites: CS 1113 with a grade of "C" or better.
Description: C/C++ programming language types, operators, expressions, control flow, functions, structures, pointers, arrays, UNIX interface. Basic object oriented programming using C++ and the related language syntax and functionality. Previously offered as CS 2432.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 2570 Special Problems in Computer Science
Prerequisites: Consent of instructor and freshman or sophomore standing.
Description: Current topics and applications of computer science. Existing and new topics to computer science. Allows lower-division students to study topics not provided in existing classes. Can be individual study or a class with a new subject. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3030 Industrial Practice in Computer Science
Prerequisites: CS 3443 and MATH 2144, each with a grade of "C" or better, junior standing, consent of departmental adviser.
Description: Applied computing in industry. Topics vary with cooperating employers. Written reports will be specified by adviser. Basic object oriented programming using C++ and the related language syntax and functionality. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3353 Data Structures and Algorithm Analysis I
Prerequisites: CS 2133, and CS 3653 or (MATH 3613 and MATH 4663), each with a grade of "C" or better.
Description: Storage, structures, data and information structures, list processing, trees and tree processing, graphs and graph processing, searching, and sorting. Previously offered as CS 4343 and CS 4344.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3363 Organization of Programming Languages
Prerequisites: CS 2133 and (CS 3443 or ECEN 3213), each with a grade of "C" or better.
Description: Programming language constructs. Run time behavior of programs. Language definition structure. Control structures and data flow programming paradigms. Previously offered as CS 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3443 Computer Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: Functional and register level description of computer systems, computer structures, addressing techniques, macros, linkage, input-output operations. Introduction to file processing operations and auxiliary storage devices. Programming assignments are implemented in assembly language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3513 Numerical Methods for Digital Computers
Prerequisites: MATH 2153 with a grade of "C" or better; MATH 3013 with a grade of "C" or better, or concurrent enrollment; or MATH 3263 with a grade of "C" or better and knowledge of programming.
Description: Errors, floating point numbers and operations, interpolation and approximation, solution of nonlinear equations and linear systems, condition and stability, acceleration methods, numerical differentiation and integration. Course previously offered as CS 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3570 Special Problems in Computer Science
Prerequisites: Junior standing and consent of instructor.
Description: Existing and new topics to computer science. Allows lower-division students to study topics not provided in existing classes. Can be individual study or a class with a new subject. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 3613 Theoretical Foundations of Computing
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Introduction to the classical theory of computer science. Sequential machines and their applications to devices, processes, and programming. Models of computation: finite-state automata, push-down automata, Turing machines. The role of non-determinism. Limits of digital computation. Computability and unsolvability. The Church-Turing Thesis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 3653 Discrete Mathematics for Computer Science
Prerequisites: MATH 2144 with a grade of "C" or better.
Description: Theory and applications of discrete mathematical models fundamental to analysis of problems in computer science. Set theory, formal logic and proof techniques, relations and functions, combinatorics and probability, undirected and directed graphs, Boolean algebra, switching logic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4143 Computer Graphics
Prerequisites: MATH 2163 and CS 3353, each with a grade of "C" or better.
Description: Interactive graphics programming; graphics hardware; geometrical transformation; data structures for graphic representations; viewing in three dimensions; representation of 3D shapes; hidden edge and hidden surface removal algorithms; shading models. May not be used for degree credit with CS 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4153 Mobile Applications Development
Prerequisites: CS 2133 or 2433, each with a grade of "C" or better.
Description: The history of mobile apps and their implication on computing in general. Survey of the various platforms and approaches used for mobile apps. Examine the differences between "conventional" programs and mobile apps. Learn tools and techniques to develop mobile apps, and demonstrate proficiency through development assignments. Must have access to computer running Mac OS. May not be used for degree credit with CS 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4173 Video Game Development
Prerequisites: CS 2133, and CS 2433 and MATH 2144, all with a grade of "C" or better.
Description: History of video games. A survey of various game platforms. Computer graphics, audio tools and techniques, and artificial intelligence for game development. Game engines. Game development tools and techniques. An overview of the video game industry from a development perspective. May not be used for degree credit with CS 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4183 Video Game Design
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Theory and pragmatics of game design including game mechanics, storytelling, and types of game play. The relationship between human/computer interaction and the user experience. A survey of game genres. An overview of the video game industry from a design perspective. May not be used for degree credit with CS 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4243 Introduction to Computer Security
Prerequisites: CS 3443 or ECEN 3213, each with a grade of "C" or better.
Description: Introductory course to computer security. Covers a broad range of basic topics in security, including cryptography, computer security, and network security. May not be used for degree credit with CS 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4273 Software Engineering
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. Same course as ECEN 4273. May not be used for degree credit with CS 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4283 Computer Networks
Prerequisites: CS 2133 with a grade of "C" or better; and CS 3443 or ECEN 3213 with a grade of "C" or better; UNIX knowledge.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. Same course as ECEN 4283. May not be used for degree credit with CS 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4323 Design and Implementation of Operating Systems I
Prerequisites: CS 2133; and CS 3443 or ENSC 3213 or ECEN 3213; and CS 3653 and CS 4343 or CS 3353, all with a grade of "C" or better.
Description: Process activation and process context block. Batch, multi-programmed, and timeshared operating system. Process management, memory management, and synchronization primitives. Deadlock prevention, avoidance, and detection. May not be used for degree credit with CS 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4373 Agile Software Development
Description: This course includes a comprehensive overview of the principles and practices of Agile software development based on Agile community's recent recommendations. The emphasis is on quick realization of system value through disciplined, iterative, and incremental software development techniques and the elimination of wasteful practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4383 Network Security and Defense
Prerequisites: CS 2133 with a grade of "C" or better.
Description: Network Security and Defense exposes students to intrusion detection, network auditing, (forensic) evidence collection, security policy design/implementation for networks, and incidence response. Students explore the viewpoint of both the attacker and the defender (network administrator) using appropriate tools in laboratory exercises, May not be used for degree credit with CS 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4433 Introduction to Database Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, relational database design with normalization theorems, XML; basic file organization and storage management; elementary e-commerce web application development; database systems and the Internet. May not be used for degree credit with CS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4483 Network Attack Security
Prerequisites: CS 3443, CS 4243, and CS 4283, each with a grade of "C" or better.
Description: This course will expand the practical knowledge of cyber attacks and their defense technologies as applied to an industrial setting. The course covers the functions and purposes of the key elements used to analyze, create, secure, and protect an industrial cyber infrastructure from cyber threats and attacks. May not be used for degree credit with CS 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013, each with a grade of "C" or better, knowledge of programming or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems of equations. Same course as MATH 4513. May not be used for degree credit with MATH 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4523 Cloud Computing and Distributed Systems
Prerequisites: CS 3443; and CS 4343 or CS 3353, each with a grade of "C" or better.
Description: Cloud computing and distributed systems architectures and models. Usage of Virtual Machines. Distributed computing frameworks. Using the cloud for big data analytics. Cloud deployment of data science algorithms. Cloud services. Security. May not be used for degree credit with CS 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4570 Special Topics in Computing
Prerequisites: Honors Program participation, junior standing.
Description: Advanced topics and applications of computer science. Typical topics include operating systems, multiprocessor systems, programming systems or various mathematical and statistical packages. Designed to allow students to study topics not provided in existing courses. Offered for variable credit, 1-3 credit hours, maximum of 5 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science

CS 4623 Introduction to Cyber Physical Systems
Prerequisites: CS 2133 with grade of "C" or better.
Description: Introduction to principles and technologies dealing with cyber physical systems and Internet of Things (IoT). Design of cyber physical frameworks and the process underlying creation of 3D VR based simulation models and Next Generation Internet frameworks to support the adoption of cyber physical methodologies. Information modeling and systems engineering based techniques to support the design of collaborative methodologies for CPS contexts from various domains including robotics and medicine. May not be used for degree credit with CS 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4743 Extended Reality
Prerequisites: CS 2133 and CS 2433 and CS 3653, each with a grade of "C" or better.
Description: Survey the history and state-of-the-art of immersive computing, aka VAMR (virtual/augmented/mixed reality) computing. Tools and techniques to develop for a variety of target platforms. Human physiological factors that affect the design and development of immersive systems. The relationship of immersive computing with IoT (Internet of Things). Construction of virtual environments and the tracking of real and virtual objects. Applications of immersive computing to solve real-world problems. May not be used for degree credit with CS 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4783 Machine Learning
Prerequisites: CS 4343 or CS 3353, and MATH 3013, each with a grade of "C" or better.
Description: A probabilistic, statistical approach to automated pattern discovery applied to large datasets. Constructing computational models with this information and assessing their behavior and reliability. Representing data and devising tools for discovering these models. Class focuses on the development and analysis of learning algorithms as well as the mathematical formulations underlying statistical processing. May not be used for degree credit with CS 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4793 Artificial Intelligence I
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Broad coverage of core artificial intelligence (AI) topics, including search-oriented problem solving, knowledge representation, logical inference, AI languages, history and philosophy of AI. May not be used for degree credit with CS 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4883 Social Issues in Computing
Prerequisites: Senior standing and a grade of "C" or better in ENGL 3323 or BCOM 3113 or BCOM 3223 or SPCH 3723.
Description: The history and evolution of computing systems, providing the background for the analysis of the social impact of computers. The social implications of computer use and or misuse with emphasis on the effects on the individual, society, and other human institutions. Social responsibilities of people involved in using or applying computers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4983 Senior Capstone Project
Prerequisites: CS 4273 with a grade of "C" or better.
Description: This course enables senior computer science majors to organize and apply the knowledge they have acquired from the undergraduate curriculum. Students are expected to work in teams to develop software solutions to real-world problems identified by an instructor. Teams are required to analyze the problem presented to them, design and implement a solution, and provide a report with performance analysis. Each team is also expected to present its work, including its ethical and social implications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Computer Science

CS 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors project under the direction of a faculty member, with a second faculty reader and an oral examination. Required for graduation with departmental honors in computing and information science.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Computer Science
General Education and other Course Attributes: Honors Credit

CS 5000 Master's Thesis
Prerequisites: Consent of major professor.
Description: Roles and responsibilities of the agricultural education teacher; types of program offerings; steps of the teaching-learning process; place of agricultural education in relation to other educational programs in school systems. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5030 Professional Practice
Prerequisites: Graduate standing in computer science, consent of the department head.
Description: Experience in the application of computer science principles to problems encountered in industry and government. Participation in problem solving in the role of junior computer scientist, junior software engineer, or computer science intern. All problem solutions documented. Required written report to the major professor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5033 Parallel Algorithms and Programming
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better, or consent of instructor.
Description: Models of parallel computation, design and analysis of parallel algorithms: fundamental parallel algorithms for selected sorting, arithmetic, and matrix, and graph problems, and applications in science and engineering, message-passing programming, and shared-memory programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5070 Seminar and Special Problems
Prerequisites: Consent of instructor.
Description: Designed to allow students to study advanced topics not provided in existing courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 5113 Computer Organization and Architecture
Prerequisites: CS 3443 with a grade of "C" or better.
Description: Computer architecture, computer control, microprogrammed control, addressing structures, memory hierarchies, hardware description languages, specific architectures, hardware simulation, and emulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5123 Cloud Computing and Distributed Systems
Prerequisites: CS 3443; and CS 4343 or CS 3353, each with a grade of "C" or better.
Description: Cloud computing and distributed systems architectures and models. Usage of Virtual Machines. Distributed computing frameworks. Using the cloud for big data analytics. Cloud deployment of data science algorithms. Cloud services. Security. May not be used for degree credit with CS 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5143 Computer Graphics
Prerequisites: MATH 2163 and CS 3353, each with a grade of "C" or better.
Description: Interactive graphics programming; graphics hardware; geometrical transformation; data structures for graphic representations; viewing in three dimensions; representation of 3D shapes; hidden edge and hidden surface removal algorithms; shading models. May not be used for degree credit with CS 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5153 Mobile Applications Development
Prerequisites: CS 2133 or 2433, each with a grade of "C" or better.
Description: The history of mobile apps and their implication on computing in general. Survey of the various platforms and approaches used for mobile apps. Examine the differences between "conventional" programs and mobile apps. Learn tools and techniques to develop mobile apps, and demonstrate proficiency through development assignments. Must have access to computer running Mac OS. May not be used for degree credit with CS 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5163 Video Game Development
Prerequisites: CS 2133, and CS 2433 and MATH 2144, all with a grade of "C" or better.
Description: History of video games. A survey of various game platforms. Computer graphics, audio tools and techniques, and artificial intelligence for game development. Game engines. Game development tools and techniques. An overview of the video game industry from a development perspective. May not be used for degree credit with CS 4173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5173 Video Game Production
Prerequisites: CS 4173 and CS 4183, each with a grade of "C" or better.
Description: The various aspects of video game production and the video game industry will be covered, including technical production and testing, roles and responsibilities of team members, project management, and legal concerns related to video game production. Professionals from the video game industry will be invited to make presentations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5183 Video Game Design
Prerequisites: CS 2133 and CS 3653, each with a grade of "C" or better.
Description: Theory and pragmatics of game design including game mechanics, storytelling, and types of game play. The relationship between human/computer interaction and the user experience. A survey of game genres. An overview of the video game industry from a design perspective. May not be used for degree credit with CS 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5223 Design and Implementation of Operating Systems I
Prerequisites: CS 2133; and CS 3443 or ENSC 3213 or ENSC 3213; and CS 3653 and CS 4343 or CS 3353, all with a grade of "C" or better.
Description: Process activation and process context block. Batch, multi-programmed, and timeshared operating system. Process management, memory management, and synchronization primitives. Deadlock prevention, avoidance, and detection. May not be used for degree credit with CS 4323. For non-CS majors only.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5233 Intro to Database Systems
Prerequisites: CS 2133 with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, relational database design with normalization theorems, XML; basic file organization and storage management; elementary e-commerce web application development; database systems and the Internet. May not be used for degree credit with CS 4433 or CS 5423. Previously offered as CS 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5243 Introduction to Computer Security
Prerequisites: CS 3443 with a grade of "C" or better.
Description: Introductory course to computer security. Covers a broad range of basic topics in security, including cryptography, computer security, and network security. May not be used for degree credit with CS 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5253 Digital Computer Design
Prerequisites: ECEN 4243 or graduate standing.
Description: Analysis and design of digital computers. Arithmetic algorithms and the design of the arithmetic/logic unit (ALU). Serial and parallel data processing; control and timing systems; microprogramming; memory organization alternatives; input/output interfaces. Same course as ECEN 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5263 Quantum Computing
Prerequisites: Graduate standing.
Description: The main theory of quantum information science and its applications to communications, computing and cryptography. Topics include introduction to quantum mechanics, quantum gates, circuits, entropy, cryptographic schemes, and implementations. Current technology in support of quantum processing will be reviewed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5273 Advanced Software Engineering
Prerequisites: CS 4273 with a grade of "C" or better.
Description: Continuation of CS 4273. Formal methods for software design and development. Static analysis. Emerging design and development approaches. Model checking and model-based software reuse. Component-based software engineering and software repositories. Same course as ECEN 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5283 Computer Network Programming
Prerequisites: CS 4283 with a grade of "C" or better.
Description: Detailed technical concepts related to Internet and multimedia, high speed LANS, high speed transport protocols, MPLS, multicasting, Int. serv/Diff serv, Router Buffer management, self-similar traffic, and socket programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5313 Formal Language Theory
Prerequisites: CS 3613 with a grade of "C" or better.
Description: Formal language theory applied to procedure oriented languages. Application of finite state algorithms to lexical analysis. Chomsky hierarchy of languages. Generation, recognition, and closure properties of languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5323 Design and Implementation of Operating Systems II
Prerequisites: CS 4323 with a grade of "C" or better.
Description: Task systems and concurrent programming, synchronization, and inter process communication. Theoretical investigation of resource sharing and deadlock, memory management, strategies, and scheduling algorithms, queuing theory, distributed operating systems. System accounting, user services and utilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5363 Advanced Organization of Programming Languages
Prerequisites: CS 3363 with a grade of "C" or better.
Description: Continuation of CS 3363, mathematical theory of computer language organization functional programming. Parallelism in languages. Mathematics of control structures and data structures. Applicative languages. Symbolic languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5373 Advanced Object-Oriented Programming for Windowing Environments
Prerequisites: For CS students: CS 2133 and CS 2433, each with a grade of "C" or better. For TCOM students: CS 4343 or CS 3353 with a grade of "C" or better and a working knowledge of C++.
Description: Applying the object-oriented computing model to the design and development of software for windowing environments. Effective use of Graphical User Interfaces (GUIs), the Internet, data interchange principles and related topics. No credit for students with credit in CS 3373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5383 Computer Networks
Prerequisites: CS 2133 with a grade of "C" or better; and CS 3443 or ECEN 3213 with a grade of "C" or better; UNIX knowledge.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. May not be used for degree credit with CS/ECEN 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5413 Data Structures and Algorithm Analysis II
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better.
Description: Data structures and their application in recursive and iterative algorithms. Static and dynamic data structure representations and processing algorithms. Dynamic and virtual storage management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5423 Principles of Database Systems
Prerequisites: CS 4343 or CS 3353; and CS 4433 or equivalent; each with a grade of "C" or better.
Description: An overview of database management systems, entity-relationship model, relational model, structural query language, relational algebra, functional dependencies, relational database design with normalization theorems, query processing, fault recovery, concurrent control, web-based database systems. Introduction to NoSQL databases, querying NoSQL databases. May not be used for degree credit with CS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5433 Big Data Management
Prerequisites: CS 3353.
Description: Introduction to storing, processing and analyzing big data. Topics to be covered include map-reduce model within the Hadoop framework, data summarization, query and analysis; data munging and transformation; streaming data; transferring structured data; setting up distributed services; fast data processing using Apache Spark, including querying, live data streaming, machine learning and parallel processing; writing data pipeline jobs; introduction to machine learning using R or Python.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5473 Software Engineering
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. May not be used for degree credit with CS 4273 and ECEN 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5483 Network Attack Security
Prerequisites: CS 3443, CS 5243, and CS 5383.
Description: This course will expand the practical knowledge of cyber attacks and their defense technologies as applied to an industrial setting. The course covers the functions and purposes of the key elements used to analyze, create, secure, and protect an industrial cyber infrastructure from cyber threats and attacks. May not be used for degree credit with CS 4483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5513 Numerical Computation
Prerequisites: MATH 3013 or equivalent courses with a grade of "C" or better and CS 3513 or an equivalent course with a grade of "C" or better and a knowledge of computer programming.
Description: This course covers advanced topics in numerical computation including matrix multiplication, norms, singular value decomposition, sensitivity of square systems, LU decomposition, pivoting, roundoff error in Gaussian elimination, orthogonalization, least squares, and Eigenvalue problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5583 Network Security and Defense
Prerequisites: CS 2133.
Description: Network Security and Defense exposes students to intrusion detection, network auditing, (forensic) evidence collection, security policy design/implementation for networks, and incidence response. Students explore the viewpoint of both the attacker and the defender (network administrator) using appropriate tools in laboratory exercises. May not be used for degree credit with CS 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5623 Introduction to Cyber Physical Systems
Prerequisites: CS 2133 with grade of "C" or better.
Description: Introduction to principles and technologies dealing with cyber physical systems and Internet of Things (IoT). Design of cyber physical frameworks and the process underlying creation of 3D VR based simulation models and Next Generation Internet frameworks to support the adoption of cyber physical methodologies. Information modeling and systems engineering based techniques to support the design of collaborative methodologies for CPS contexts from various domains including robotics and medicine. May not be used for degree credit with CS 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5653 Automata and Finite State Machines
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Sequential machines and automata. Hierarchy of recognizers. Decision problems and closure properties. Finite and infinite state machines. Cellular and stochastic automata. Coverings of automata.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5663 Computability and Decidability
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Primitive and partial recursive functions. Equivalence of models of computation. The Halting problem and undecidability. Reducing one problem to another or representation change. Tractability and the P-NP problem. Complexity hierarchies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5683 Big Data Analytics
Prerequisites: CS 5513 or instructor's permission.
Description: This course focuses on data science methods to analyze multiple types of massive datasets along with their applications on real world problems like web analysis and recommender systems. May not be used for degree credit with MSIS 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5723 Artificial Intelligence I
Prerequisites: CS 3353 with a grade of "C" or better.
Description: Broad coverage of core artificial intelligence (AI) topics, including search-oriented problem solving, knowledge representation, logical inference, AI languages, history and philosophy of AI. May not be used for degree credit with CS 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5743 Extended Reality
Prerequisites: CS 2133 and CS 2433 and CS 3653, each with a grade of "C" or better.
Description: Survey the history and state-of-the-art of immersive computing, aka VAMR (virtual/augmented/mixed reality) computing. Tools and techniques to develop for a variety of target platforms. Human physiological factors that affect the design and development of immersive systems. The relationship of immersive computing with IoT (Internet of Things). Construction of virtual environments and the tracking of real and virtual objects. Applications of immersive computing to solve real-world problems. May not be used for degree credit with CS 4743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5753 Representation Learning
Prerequisites: CS 5783
Description: This course introduces the field of representation learning, a key aspect of machine learning that focuses on automatically extracting data features, rather than manually crafting them. The course covers several modern deep learning techniques, such as neural networks, auto-encoders, attention, domain-specific representation learning tasks, contrastive learning, and knowledge distillation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5763 Responsible AI Development and Deployment in Healthcare
Prerequisites: CS 5783, HCA 5013, HCA 5133
Description: This course provides a comprehensive exploration of the development, implementation, and management of AI systems in healthcare, with a special emphasis on ethical, regulatory, and human-centered considerations. The course will cover the technical foundations of AI/ML, explainable AI (XAI) models, and the challenges of data bias, security, and privacy specific to healthcare applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5773 Computational Neuroscience
Prerequisites: CS 3353 with a grade of C or higher.
Description: Students will be introduced to the field of Computational Neuroscience. Throughout the course, we will explore mathematical and computational models that attempt to fit and predict the behavior of neurons and nervous systems at various levels of abstraction. A strong emphasis will be placed on the cross-disciplinary nature of this field of research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5783 Machine Learning
Prerequisites: CS 3353 or CS 4343, and MATH 3013, each with a grade of "C" or better.
Description: A probabilistic, statistical approach to automated pattern discovery applied to large datasets. Constructing computational models with this information and assessing their behavior and reliability. Representing data and devising tools for discovering these models. Class focuses on the development and analysis of learning algorithms as well as the mathematical formulations underlying statistical processing. May not be used for degree credit as CS 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5793 Artificial Intell II
Prerequisites: CS 4793 with a grade of "C" or better.
Description: Advance knowledge representation and expert system building, including reasoning under uncertainty. Applications to planning, intelligent agents, natural language processing, robotics, and machine learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5813 Principles of Wireless Networks
Prerequisites: CS 4283 or ECEN 4283, with a grade of "C" or better.
Description: Wireless network operation, planning, mobility management, cellular and mobile data networks based on CDMA, TDMA, GSM, IEEE 802-11 WLANS, Adhoc networks, Bluetooth, power management, wireless geolocation and indoor positioning techniques. Same course as ECEN 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 5823 Network Algorithmics
Prerequisites: CS 4283 and CS 4323, with a grade of "C" or better.
Description: Discusses principles of efficient network implementation-router architecture, end node architecture, data copying, timer maintenance, demultiplexing, forwarding table, lookups, switching, scheduling, IP traceback.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6000 Doctoral Dissertation
Prerequisites: Graduate standing and approval of advisory committee.
Description: Graduate standing and approval of advisory committee. Independent research under the direction of a member of the graduate faculty. For students working toward a PhD degree. Offered for variable credit, 2-15 credit hours, maximum of 40 credit hours.
Credit hours: 2-15
Contact hours: Contact: 2-15 Other: 2-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6210 Advanced Topics in Parallel and Distributed Systems
Prerequisites: CS 5113 with a grade of "C" or better.
Description: The state-of-the-art of parallel and distributed systems. Design, implementation, and analysis of parallel and distributed system architectures, protocols, and algorithms. Resource management, scheduling, and coordination. Internet-scale systems, middleware and services, virtualization, and distributed operating systems. Parallel and distributed programming paradigms: message-passing, shared memory, data-intensive, high performance, high throughput. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6240 Advanced Topics in Computer Organization
Prerequisites: CS 5113 and CS 5253, each with a grade of "C" or better.
Description: Structure and organization of advanced computer systems, parallel and pipeline computers, methods of computation, alignment networks, conflict-free memories, and bounds on computation time. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6253 Advanced Topics in Computer Architecture
Prerequisites: CS 5253 or ECEN 5253, with a grade of "C" or better.
Description: Innovations in the architecture and organization of computers, with an emphasis on parallelism. Topics may include pipelining, multiprocessors, data flow, and reduction machines. Same course as ECEN 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6300 Advanced Topics in Programming Languages
Prerequisites: CS 5313 with a grade of "C" or better.
Description: Interpreter models of programming language semantics, Vienna definition language, lambda calculus, LISP definition; Knuth semantic systems and their formulation, translational and denotational semantics. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6350 Advanced Topics in Operating Systems
Prerequisites: CS 5323 with a grade of "C" or better.
Description: Design and analysis of operating systems. Concurrent processes, server scheduling, models of auxiliary storage, memory management, virtual systems, and performance algorithms. May be repeated with a change in topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6400 Advanced Topics in Information Systems
Prerequisites: CS 5413 and CS 5423, each with a grade of "C" or better.
Description: Principles of distributed database systems. Overview of relational database management systems (DBMS) and computer networks, distributed DBMS architecture, distributed database design, distributed concurrency control, query processing and distributed DBMS reliability. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6500 Advanced Topics in Numerical Analysis
Prerequisites: MATH 5513 or CS 4513 with a grade of "C" or better, or MATH 4513 with a grade of "C" or better and consent of instructor.
Description: Systems of nonlinear equations, nonlinear least squares problems, iterative methods for large systems of linear equations, finite element methods, solution of partial differential equations. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6600 Advanced Topics in Analysis of Algorithms
Prerequisites: CS 5413 with a group of "C" or better.
Description: Analysis of various algorithms. Sorting, searching, computational complexity, lower bounds for algorithms; NP-hard and NP-complete problems; parallel algorithms; proof of correctness of algorithms. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6620 Advanced Topics in Applied Algorithms
Prerequisites: CS 4343 or CS 3353 with a grade of "C" or better, or consent of instructor.
Description: Recent advances in the design and analysis of data structures and algorithms for real-world applications in diverse problem domains. Problem domain designated for the course will differ in each offering and with instructor's interests. Core topics include mathematical modeling of complex applied problems, and studies of relevant fundamental algorithmic techniques and their experimental analysis on real datasets. Offered for 3 fixed credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

CS 6623 Algebraic Structures of Formal Grammars
Prerequisites: CS 5313 and CS 5653; all with a grade of "C" or better.
Description: Context-free languages, Kleene languages, Dyck languages, context-sensitive languages; use of algebraic systems to define languages; linear bounded automata.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6700 Advanced Topics in Artificial Intelligence
Prerequisites: CS 5793 with a grade of "C" or better, or consent of instructor.
Description: Machine learning; computer perception and robotics; logic programming; natural language understanding; intelligent agents; medical informatics. May be repeated with change of topics. Offered for variable credit, 2-6 credit hours, maximum of 12 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Computer Science

CS 6800 Advanced Topics in Computing Networks
Prerequisites: CS 5283 with a grade of "C" or better; Graduate standing in Computer Science; consent of instructor.
Description: Large scale embedded networks, deep-space networking, ubiquitous computing, optical networking, Next Generation Internet. May be repeated with change of topics. Offered for variable credit, 2-12 credit hours, maximum of 12 credit hours.
Credit hours: 2-12
Contact hours: Lecture: 2-12 Contact: 2-12
Levels: Graduate
Schedule types: Lecture
Department/School: Computer Science

Undergraduate Programs

- Applied Computer Programming, BS (p. 1242)
- Computer Science, BS (p. 1246)

1) Program Educational Objectives

The graduates of the Bachelor of Science program in Department of Computer Science will:

- Design and implement computing solutions for practical problems posed by employers in industry, government and the nonprofit sector.
- Exhibit effective communication skills and teamwork.
- Achieve leadership roles and maintain high standards of professional ethics.
- Pursue graduate studies or employment in industries in computer science and other fields.

2) Student Outcomes

The student outcomes for the BS degree program listed below help in achieving the Program Educational Objectives.

- Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Apply computer science theory and software development fundamentals to produce computing-based solutions.

Graduate Programs
MS and PhD Programs

The department offers degree programs in the Master of Science degree and the Doctor of Philosophy degree. These programs are designed to prepare an individual to pursue a career in either an academic or an industrial setting. In addition to taking a prescribed set of core courses, a student must take sufficient courses in one specialized area. A student must complete a dissertation for a PhD degree. The MS degree program provides a thesis option and a non-thesis option. The non-thesis option requires a student to complete a report.

The core course requirement assures the student's of breadth of knowledge in computer science. The freedom to choose an area and additional research provides the student enough depth in some facets of computer science to carry out independent investigations in those areas, and to put concepts and ideas learned to practical use.

For a master's degree in the thesis option, 30 hours of graduate credit, including six credit hours of thesis work, are required. A master's degree student in thesis option is required to pass an oral examination over the thesis. For a master's degree in the non-thesis option, 33 hours of graduate credit are required.

For the PhD, 60 credit hours beyond a master's degree or 90 credit hours beyond a bachelor's degree are required. A dissertation of 15 to 40 hours (counting towards the maximum) is required. The PhD dissertation must describe original research. PhD students must pass a diagnostic examination, a comprehensive examination, a qualifying examination, and a final oral examination.

The candidate's baccalaureate degree need not be in computer science in order to enter the MS program. Students with degrees in other areas may be admitted provisionally and required to take specified prerequisite courses.

More information is available at https://cs.okstate.edu/graduate (https://cs.okstate.edu/graduate/).

Graduate Certificate Program in Big Data Analytics

The goal of the big data analytics program is to facilitate the capture, curation, storage, search, transfer, and analysis of large and complex data sets that have direct relevance to everyday situations and problems. The program covers core topics such as big data management, machine learning, data analytics and statistics.

The graduate certificate in Big Data Analytics may be completed in conjunction with the master's degree in Computer Science without enrolling for extra hours. To see required courses for this program, please go to: https://cs.okstate.edu/certificate_big_data (https://cs.okstate.edu/certificate_big_data/).

Minors

- Applied Computer Programming (APCP), Minor (p. 1241)
- Computer Science (CS), Minor (p. 1245)

Certificates

- Cybersecurity, UCRT (p. 1249)

Faculty

Roger Mailler, PhD—Professor and Head
Professors: K.M. George, PhD; Johnson Thomas, PhD
Associate Professors: Christopher Crick, PhD; H.K. Dai, PhD; Nohpill Park, PhD
Assistant Professors: Hrishikesh Bhattacharya, PhD; Sharmin Jahan, PhD; Anirudh Paranjothi, PhD; Cong Pu, PhD; Atriya Sen, PhD; Rittika Shamsuddin, PhD; Minsoo Choi, PhD
Teaching Associate Professors: Sachin Jain, PhD; Shital Joshi, PhD
Teaching Assistant Professors: Sadiq Al Buhamood, PhD; Bjorn Larson, PhD; Asaad Althoubi, PhD

Applied Computer Programming (APCP), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA: Minimum grade of "C" and 2.0 GPA.
Total Hours: 18

Code	Title	Hours
Required Courses		
CS 1113	Computer Science I (A) [1]	3
MATH 1513	College Algebra (A) (or higher) [1]	3
Select six hours from CS courses (except CS 1003 and CS 4883).		6
Select six hours from the following:		6
CS courses, except CS 1003 and CS 4883		
ENGR 1412	Introductory Engineering Computer Programming	
MSIS 2103	Business Data Science Technologies	
MSIS 2203	Computer Programming for Business	
MSIS 3103	End User Database Systems Design and Management	
MSIS 3163	Web Design Essentials	
MSIS 3203	Advanced Computer Programming for Business	
MSIS 3333	Database Systems Development	
MSIS 3393	Advanced Spreadsheet Modeling and Programming	
MSIS 4713	Scripting Essentials	
Total Hours		**18**

1 College Algebra is a prerequisite to CS 1113.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Applied Computer Programming, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
CS 1113	Computer Science I (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
MATH 1813	Preparation for Calculus (Q)	3
or PHIL 1313	Logic and Critical Thinking (Q)	
STAT 4013	Statistical Methods I (Q)	3
or STAT 2013	Elementary Statistics (Q)	
Foreign Languages		
See note 3		
0-6 hours		
Upper Division General Education		
Select 6 hours outside major department (see note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.50 with a minimum grade of "C" in each course and all MATH and CS courses		
CS 2133	Computer Science II	3
CS 2433	C/C++ Programming	3
CS 3353	Data Structures and Algorithm Analysis I	3
CS 3363	Organization of Programming Languages	3
CS 3443	Computer Systems	3
CS 3653	Discrete Mathematics for Computer Science	3
CS 4153	Mobile Applications Development	3
CS 4243	Introduction to Computer Security	3
CS 4433	Introduction to Database Systems	3
or MSIS 3333	Database Systems Development	
CS 4273	Software Engineering	3
CS 4983	Senior Capstone Project	3
CS 4883	Social Issues in Computing	3
Select one of the following:		3
ENGL 3323	Technical Writing	
BCOM 3113	Written Communication	
BCOM 3223	Oral Communication	
SPCH 3723	Business and Professional Communication	
CS electives		
Select 6 hours CS electives (upper-division courses)		6
Select 9 hours in the following areas:		9
Computer Science (upper-division courses)		
Engineering (upper-division courses)		
Geography (GEOG 3333, GEOG 4303, GEOG 4323, GEOG 4333, GEOG 4343, GEOG 4353, GEOG 4383)		
Management Science and Information Systems (upper-division courses and MSIS 2203, and excluding MSIS 3103)		
Mathematics (upper-division courses and MATH 2153 and MATH 2163 and MATH 2233, and excluding MATH 3303 and MATH 3403 and MATH 3603)		
Natural Sciences (upper-division courses with natural science designation or upper-division courses in BIOC, BIOL, CHEM, GEOL, MICR, PBIO, PHYS)		
Statistics (upper-division courses)		
Hours Subtotal		**54**
Electives		
Select 13 hours of electives		13
May need to include 6 hours of a foreign language. See note 3		

May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
May need to include MATH 1513 if student does not place into MATH 1813.	
Hours Subtotal	**13**
Total Hours	**120**

CS Electives

Code	Title	Hours
CS 3030	Industrial Practice in Computer Science	1-6
CS 3570	Special Problems in Computer Science	1-6
CS 4143	Computer Graphics	3
CS 4173	Video Game Development	3
CS 4183	Video Game Design	3
CS 4283	Computer Networks	3
CS 4373	Agile Software Development	3
CS 4383	Network Security and Defense	3
CS 4483	Network Attack Security	3
CS 4513	Introduction to Numerical Analysis	3
CS 4523	Cloud Computing and Distributed Systems	3
CS 4570	Special Topics in Computing	1-3
CS 4623	Introduction to Cyber Physical Systems	3
CS 4743	Extended Reality	3
CS 4783	Machine Learning	3
CS 4793	Artificial Intelligence I	3
CS 4993	Senior Honors Project	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1813 or PHIL 1313	Preparation for Calculus (Q) or Logic and Critical Thinking (Q)	3
CS 1103	Computer Programming (Q)	3
CS 1113	Computer Science I (Q)	3
General Education courses		6
	Hours	**15**
Spring		
MATH 2144	Calculus I (Q)	4
CS 2133	Computer Science II	3
General Education courses		8
	Hours	**15**
Sophomore		
Fall		
CS 3653	Discrete Mathematics for Computer Science	3
CS 2433	C/C++ Programming	3
Upper-division related		3
General Education courses		6
	Hours	**15**
Spring		
CS 3443	Computer Systems	3
CS 4153	Mobile Applications Development	3
Major, College, and Elective courses		6
Upper-division elective		3
	Hours	**15**
Junior		
Fall		
CS 3353	Data Structures and Algorithm Analysis I	3
CS 4243	Introduction to Computer Security	3
CS 4273	Software Engineering	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4013	Statistical Methods I (Q)	3
CS 4433	Introduction to Database Systems	3
BCOM 3113 or BCOM 3223 or ENGL 3323	Written Communication or Oral Communication or Technical Writing	3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
CS Elective		3
CS 3363	Organization of Programming Languages	3
CS 4273	Software Engineering	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
CS 4883	Social Issues in Computing	3
CS 4983	Senior Capstone Project	3
Upper-division related		3
Major, College, and Elective courses		6
	Hours	**15**
	Total Hours	**120**

Computer Science (CS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Total Hours: 21

Code	Title	Hours
Minor Requirements		
9 hours of the following:		9
CS 1113	Computer Science I (A) (was CS 2113)	
CS 2133	Computer Science II	
CS 3443	Computer Systems	
or ECEN 3213	Computer Based Systems in Engineering	
Select 12 hours from CS 2433 or CS 3000-level or CS 4000-level courses.		12
Total Hours		**21**

Other Requirements

- One course must be 4000 level.
- No more than two courses can be transferred from another college or university.
- No grade below a "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Computer Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
CS 1113	Computer Science I (Q)	3
MATH 2144	Calculus I (Q)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 2133	Computer Science II	3
MATH 2153	Calculus II (Q)	3
STAT 4033	Engineering Statistics	3
or MATH 2163	Calculus III	
or CS 3513	Numerical Methods for Digital Computers	
or MATH 4513	Introduction to Numerical Analysis	
Foreign Languages		
See note 3		
0-6 hours		
Upper Division General Education		
Select 6 hours outside major department (see note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.50 with a minimum grade of "C" in each course and all MATH and CS courses		
CS 3353	Data Structures and Algorithm Analysis I	3
CS 3363	Organization of Programming Languages	3
CS 3443	Computer Systems	3
CS 3613	Theoretical Foundations of Computing	3
CS 3653	Discrete Mathematics for Computer Science	3
CS 4243	Introduction to Computer Security	3
CS 4273	Software Engineering	3
CS 4283	Computer Networks	3
CS 4323	Design and Implementation of Operating Systems I	3
CS 4433	Introduction to Database Systems	3
or MSIS 3333	Database Systems Development	
CS 4883	Social Issues in Computing	3
CS 4523	Cloud Computing and Distributed Systems	3
CS 4983	Senior Capstone Project	3
MATH 3013	Linear Algebra (Q)	3
CS electives		
Select 9 hours CS electives (upper-division courses and CS 2433 and excluding CS 4113)		9
Select 6 hours in the following areas:		6
Computer Science (upper-division courses and CS 2433 and excluding CS 4113)		
Engineering (upper-division courses)		
Geography (GEOG 3333, GEOG 4303, GEOG 4323, GEOG 4333, GEOG 4343, GEOG 4353, GEOG 4383)		
Management Science and Information Systems (upper-division courses and excluding MSIS 3103 and MSIS 3163)		
Mathematics (upper-division courses and MATH 2233 and excluding MATH 3303, MATH 3403, and MATH 3603)		
Natural Sciences (upper-division courses with natural science designation or upper-division courses in BIOC, BIOL, CHEM, GEOL, MICR, PBIO, PHYS)		
Statistics (upper-division courses)		
Hours Subtotal		**57**
Electives		
Select 10 hours of electives		10
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		

May need to include MATH 1513 and/or MATH 1813 if student does not place into MATH 2144.

Hours Subtotal	**10**
Total Hours	**120**

CS Electives

Code	Title	Hours
CS 2433	C/C++ Programming	3
CS 3030	Industrial Practice in Computer Science	1-6
CS 3570	Special Problems in Computer Science	1-6
CS 4143	Computer Graphics	3
CS 4153	Mobile Applications Development	3
CS 4173	Video Game Development	3
CS 4183	Video Game Design	3
CS 4373	Agile Software Development	3
CS 4383	Network Security and Defense	3
CS 4433	Introduction to Database Systems	3
CS 4483	Network Attack Security	3
CS 4513	Introduction to Numerical Analysis	3
CS 4523	Cloud Computing and Distributed Systems	3
CS 4570	Special Topics in Computing	1-3
CS 4623	Introduction to Cyber Physical Systems	3
CS 4743	Extended Reality	3
CS 4783	Machine Learning	3
CS 4793	Artificial Intelligence I	3
CS 4993	Senior Honors Project	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 2144	Calculus I (Q)	4
CS 1113	Computer Science I (Q)	3
General Education courses		8
	Hours	**15**
Spring		
MATH 2153	Calculus II (Q)	3
CS 2133	Computer Science II	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
CS 2433	C/C++ Programming	3
CS 3653	Discrete Mathematics for Computer Science	3
MATH 3013	Linear Algebra (Q)	3
General Education courses		6
	Hours	**15**
Spring		
CS 3353	Data Structures and Algorithm Analysis I	3
CS 3443	Computer Systems	3
MATH 2163 or STAT 4033 or CS 3513	Calculus III or Engineering Statistics or Numerical Methods for Digital Computers	3
Major, College, and Elective courses		6
	Hours	**15**
Junior		
Fall		
CS 4243	Introduction to Computer Security	3
CS 4433 or MSIS 3333	Introduction to Database Systems or Database Systems Development	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
CS 3613	Theoretical Foundations of Computing	3
CS 4283	Computer Networks	3
3 hours Upper-Division CS Elective		3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
CS 3363	Organization of Programming Languages	3
CS 4273	Software Engineering	3
CS 4523	Cloud Computing and Distributed Systems	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
CS 4323	Design and Implementation of Operating Systems I	3
CS 4883	Social Issues in Computing	3
CS 4983	Senior Capstone Project	3
3 hours Upper-Division CS Elective		3
Major, College, and Elective courses		3
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with Global Cultural Competency (G) and Diversity (D) dimensions.

Cybersecurity, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total hours: 24

Code	Title	Hours
Required Courses		
MATH 1513	College Algebra (Q)	3
CS 1113	Computer Science I (Q)	3
CS 2133	Computer Science II	3
CS 3443	Computer Systems	3
CS 4243	Introduction to Computer Security	3
CS 4283	Computer Networks	3
CS 4383	Network Security and Defense (Network Security and Defense)	3
CS 4483	Network Attack Security (Network Attack Security)	3
Total Hours		**24**

Additional Requirements

- Minimum GPA of 2.50 with no grade below "C"
- Minimum 12 hours from OSU

Departments of Military Studies

In agreement with the U.S. Air Force and the U.S. Army, OSU recognizes separate departments of Aerospace Studies and of Military Science as integral academic and administrative departments of the University. These two departments are administered within the framework of the College of Arts and Sciences. The two departments provide instruction under the basic and advanced Reserve Officers' Training Corps (ROTC) programs.

Scholarships

The Army and Air Force ROTC programs offer a wide variety of four-, three- and two-year merit-based scholarship opportunities to qualified students interested in pursuing a commission in the Army or Air Force. ROTC scholarships provide payment for tuition, mandatory fees, books and a monthly subsistence allowance for the duration of the scholarship period. An additional university-based incentive scholarship of $1,000.00 per semester is allocated to 10 ROTC scholarship recipients annually. Four-year National ROTC scholarships are offered annually to high school seniors, who will be entering college in the fall semester. Scholarship applications may be obtained through local high schools, online or by contacting the University's ROTC department. In addition, the Army ROTC Program offers four- and three-year Guaranteed Reserve Force Duty Scholarships annually to students interested in pursuing a commission as an officer in the Army National Guard or United States Army Reserve.

Flexibility

ROTC at OSU offers a variety of programs, giving the student considerable flexibility in charting a path to commissioning in the Army or the Air Force. Programs are designed so those individuals in all OSU colleges, departments and majors can tailor their academic/ROTC curriculum in order to attain commissioned status. Opportunities also exist in both Army and Air Force ROTC for the student to "test the water" early in his or her academic program by participating in basic familiarization courses. Those interested in learning more about ROTC at OSU, or in enrolling, are urged to contact the professor of aerospace studies or professor of military science in Thatcher Hall on campus.

Courses

MLSC 1113 Foundations of Officership
Description: Lecture: Team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, presentations and basic marksmanship. Fundamentals of leadership. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1112.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 1213 Basic Leadership
Description: Lecture: Principles of effective leading, communication skills and organizational ethical values. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1212.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2122 Leader's Training Course
Prerequisites: Must meet with Department head and have their approval.
Description: For students who have not completed all of basic ROTC. A four-week summer camp similar to Army Basic Training. No military obligation incurred. Completion of MLSC 2122 qualifies a student for entry into the Advanced Course.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2130 Military Physical Conditioning
Prerequisites: Must meet with department head and have their approval.
Description: Participation in and learning to plan and lead a physical fitness program. Development of an individual fitness program and the role of exercise and fitness in person's life. Offered for 1 hour fixed credit. Maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2233 Individual Leadership Studies
Description: Ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Skills in oral presentation, writing, planning, coordinating groups, land navigation and basic military tactics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2313 Leadership and Teamwork
Prerequisites: MLSC 2233.
Description: Individual and team aspects of military tactics in small unit operations. Safety assessment, movement techniques, planning for team safety and security and methods of pre-execution checks. Training techniques for continued leadership development.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3113 Leadership and Problem Solving
Prerequisites: Completion of lower-division MLSC or equivalent, and approval of professor of military science.
Description: Practical opportunities to lead small groups in situations of increasing complexity receiving personal assessments and encouragement. Use of small unit defensive tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3223 Leadership and Ethics
Prerequisites: MLSC 3113.
Description: Analysis of tasks; preparation of written or oral guidance for team members to accomplish tasks. Delegating tasks and supervising. Planning and adapting to the unexpected in organizations under stress. Examination and application of lessons from leadership case studies. Examination of importance of ethical decision-making in setting a positive climate that enhances team performance.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4014 Leader Development and Assessment Course
Prerequisites: Must meet with Department Head and have their approval.
Description: A five-week camp conducted at an Army post. Individual leadership and basic skills performance.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 4123 Leadership and Management
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Planning conducting and evaluating activities of the ROTC cadet organization. Articulating goals, putting plans into action to attain them. Assessing organizational cohesion and developing strategies to improve it. Developing confidence in skills to lead people and manage resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4223 Officership
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Continuation of the methodology from MLSC 4123. Identification and resolution of ethical dilemmas. Refining counseling and motivating techniques. Examination of aspects of tradition and law as related to leading as an officer in the Army.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4422 The Tactical Planning Process
Prerequisites: Must meet with department head and have their approval.
Description: The tactical planning process and its components. Computer tactical simulations used to organize and synchronize the process.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Military Science

Faculty

LTC Robert "Bo" Reynolds—Coordinator

Economics

See "Economics (p. 2726)" in the "Spears School of Business" section for additional information.

Economics is a science of human choice. The study of economics centers on what motivates us to act and, more importantly, the consequences to ourselves and to others of our actions. It provides a comprehensive view of how a society is organized to transform its limited resources into want-satisfying goods and services. It investigates the principles underlying the operation of the economic system and seeks to determine its weaknesses and to prescribe policies that will improve its operation. In the process, economic principles are used to address a host of the most important problems confronting contemporary society—the causes of and remedies for depression and inflation, the determinants of and methods for improving income distribution, poverty problems and welfare measures, the role of the government in economic activity, the requisites for economic growth and development, pollution and congestion and their control.

The primary objectives sought in the undergraduate curriculum are to develop a broad understanding and perspective of the economic aspects of people's activities, coupled with thorough training in the fundamental tools of economic analyses. Toward these ends is the development of elementary mathematical and statistical skills and complementary study in the social and behavioral sciences.

A major in economics prepares students for positions with business firms, non-profit private organizations and government agencies—both national and international. It provides an excellent background for the study of law. An international economic relations option is also offered. A degree option in business economics and quantitative studies is offered through the Spears School of Business to provide additional training in analytical methods and communication skills for both public and private sector occupations. A student interested in pursuing graduate studies in Economics should include a wide range of math courses in their undergraduate curriculum.

Courses

ECON 1113 The Economics of Social Issues (S)
Description: Issues-oriented approach. Basic economic principles introduced and developed through study of important social issues: for example, inflation, unemployment, poverty, discrimination, crime, population growth and environmental quality. Develops the economist's approach to social problems, and evaluates the contribution of economics to their solution. No general education credit for students also taking AGEC 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2003 Microeconomic Principles for Business
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations relevant to business: operation of markets for goods, services and factors of production; the behavior of firms and industries for different types of competition; and international exchange. May not be used for degree credit with ECON 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 2103 Introduction to Microeconomics (S)
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations from current social issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition; income distribution; and international exchange. May not be used for degree credit with ECON 2003. No general education credit for students also taking AGEC 1113. Previously offered as ECON 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2203 Introduction to Macroeconomics
Prerequisites: ECON 2103 or ECON 1113 or AGEC 1113 or ECON 2003.
Description: The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; monetary and fiscal policy; and aspects of international interdependence. Previously offered as ECON 2013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3010 Special Topics in Economics
Prerequisites: ECON 2203, prior approval of instructor.
Description: Analysis of a contemporary topic in economics. Course content will vary to reflect changing social issues and trends in applied economics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 3023 Managerial Economics
Prerequisites: ECON 2103 or AGEC 1113 or ECON 2003.
Description: Application of economic theory and methodology to decision problems of private industry, nonprofit institutions and government agencies; demand and cost analysis, forecasting, pricing and investment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3033 Economics of Entrepreneurship and Innovation
Prerequisites: 3 credit hours in Economics.
Description: Explores the process of economic innovation and entrepreneurship from both microeconomic and macroeconomic perspectives. Key topics include risk and uncertainty, the psychology of innovation, institutional change, product versus process innovation, the externality of innovation, innovation profit, innovation life cycle, innovation diffusion, and business cycle instability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3043 Real Estate Economics
Prerequisites: ECON 2003 or ECON 2103.
Description: Theoretical and empirical development of an understanding of economic factors that shape and influence markets for real property. Topics include theory of land markets and locational choice, studies of changing economic activities, demographic trends, transportation, and local government behavior as they affect real estate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3113 Intermediate Microeconomics
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: How the market organizes economic activity and an evaluation of its performance. Principles of price theory developed and applied to the interactions of consumers, producers and resource owners in markets characterized by different degrees of competition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3123 Intermediate Macroeconomics
Prerequisites: ECON 2203 and either MATH 2103 or MATH 2144.
Description: Development of a theoretical framework for studying the determinants of national income, employment and general price level. National income accounting, consumption, investment, government spending and taxation, the supply of and demand for money. Monetary, fiscal and incomes policies considered with regard to unemployment, inflation and economic growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3213 Game Theory and Experimental Economics
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: The fundamentals of strategic actions presented in a game theory context and the validation of these ideas with economic experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3313 Money and Banking
Prerequisites: ECON 2203.
Description: The economics of money and banking. Operations of commercial banks and structure and competition of the banking industry. Organization and operation of the Federal Reserve System and its effects on interest rates, employment and prices. An introduction to monetary economics and international banking concludes the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3423 Public Finance
Prerequisites: ECON 2003 or ECON 2203.
Description: The economics of the government sector. Scope of government activity, efficiency in government expenditures, federal budget, fiscal and debt management policy. Principles of taxation. Major tax sources, tax distribution, tax issues. Current public finance problems such as revenue sharing, negative income tax, urban transport systems and national health insurance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3513 Labor Economics
Prerequisites: ECON 2003.
Description: The economic analysis of labor markets. Topics include labor supply and demand, the impact of education and training, labor migration, the structure of wages, discrimination and labor unions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3613 International Economic Relations (GS)
Prerequisites: ECON 2003 or ECON 2203.
Description: International trade and finance; international economic organizations; the foreign economic policy of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 3703 Introduction to Mathematical Economics
Prerequisites: One from each of the following groups - MATH 1483 or MATH 1513; ECON 2003 or ECON 2103.
Description: Essential mathematical knowledge suitable for economic analysis. Particular emphasis is on learning and using algebra and calculus based techniques as well as optimization theory for analyzing economic decisions. Topics covered include economic applications of basic algebra, calculus, matrix algebra, and etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3713 Introduction to Industrial Organization
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: A branch of Microeconomics specializing in questions related to imperfect competition, effect of market structure on behavior of firms, monopoly power, anti-competitive practices and anti-trust issues. An introduction on strategic competition between firms, how this is related to market structure and market power.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3723 The Economics of Sport
Prerequisites: ECON 2103 or ECON 2003.
Description: Using economic analysis to understand the world of professional and amateur sport. Emphasis will be on economic decision-making relevant to the teams, leagues and institutions in the world of sport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3823 American Economy: The Past and Present (S)
Description: Economic development and economic forces in American history; emphasis upon industrialization and its impact upon our economic society since the Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 3903 Economics of the Environment
Prerequisites: ECON 2103 or ECON 2003.
Description: Economic and political factors that influence the formation and implementation of environmental policy. Environmental policy instruments such as pollution taxes, standards and marketable pollution permits are discussed. Measurement of environmental damages and risk are also considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4043 Real Estate and Capital Markets
Prerequisites: ECON 2003 or ECON 2203.
Description: Understanding of how debt and equity secondary markets linked to real estate assets. Topics include the impact of institutional forces on the real estate sector, development of a framework of institutional real estate private and public equity and capital markets including the concept of market efficiency, modern portfolio theory applications, and market measures of risk and return under current and future circumstances with a particular focus on market activity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4113 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines economic theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4213 Econometric Methods
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Basic quantitative methods used in economic analysis emphasizing applications to economic problems and interpretation of empirical results. Statistical analyses, regression and forecasting techniques using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4223 Business and Economic Forecasting
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Forecasting business and economic variables. Regression models and time series models such as exponential smoothing models, seasonal models, and Box-Jenkins models. Evaluation of methods and forecasting accuracy. Application of methods using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4233 Econometric Applications
Prerequisites: ECON 2203 and 3 hours of statistics.
Description: Econometric applications and data analysis used to conduct economic research and policy analysis. Econometric methods include the basics of linear regression, hypothesis testing, panel data, differences-in-differences, instrumental variables, and quantile regression. The emphasis is on the development of intuition and application rather than econometric theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4643 International Economic Development (GS)
Prerequisites: ECON 2003.
Description: Problems of underdeveloped economics related to the world economy; obstacles to economic growth and policies for promoting growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 4850 Applied Studies in Economics
Prerequisites: 12 credit hours in economics and consent of instructor.
Description: Structured internship or field project with supporting academic study. Offered for variable credit,1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 4913 Urban and Regional Economics
Prerequisites: ECON 2003 or ECON 2203.
Description: Theoretical, historical, and empirical examination of the economic forces that shape growth, development, land use, and location decisions in towns, cities and regions. Presents economic explanation for several urban problems such as sprawl, segregation, crime, pollution, traffic congestion, and inadequate housing and education. The role of state and local governments in addressing these problems is discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4933 Applied Economics
Prerequisites: ECON 3113 and ECON 3123 and 6 additional hours of upper-division economics.
Description: Essential skills in applied economics, including data collection, economics analysis, and presentation of findings. Specific applications may come from international trade and finance, econometrics, energy economics, public finance, labor economics, economic history, regional economics, and development, etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4993 Economics Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in economics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics
General Education and other Course Attributes: Honors Credit

ECON 5000 Research and Thesis
Description: Workshop for the exploration and development of research topics. Research leading to the master's thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 5003 Research Report
Prerequisites: Consent of committee chairperson.
Description: Supervised research for MS report.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5010 Research and Independent Studies
Prerequisites: Consent of departmental committee under a workshop arrangement or supervised independent studies.
Description: Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5033 Macroeconomic Analysis
Prerequisites: Three hours of economics or consent of instructor.
Description: Study of the determinants of aggregate output, employment, price level, and interest rates, including international aspects. Monetary, fiscal, and exchange rate policies and impact on the macroeconomy and business environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5043 Microeconomic Analysis
Prerequisites: ECON 3113 and MATH 2144 or consent of instructor.
Description: A calculus-based microeconomics course developing basic consumer, producer, and equilibrium models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5113 Managerial Economics
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Economic theory applied to business decision-making. Concepts of microeconomics and macroeconomics related to understanding the economic system, analysis of policy, forecasting, and international economics. No credit for PhD students in economics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5173 Energy Economics
Prerequisites: ECON 5113 or ECON 2103 or equivalent.
Description: Develop tools necessary to examine energy markets from an economics perspective and discuss aspects of local, national and global markets for oil, natural gas, coal, electricity, and renewable energy. The course examines public policies affecting energy markets including taxes, regulation, energy efficiency and control of emissions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5213 Introduction to Econometrics
Prerequisites: STAT 3013 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. A review of basic probability and statistics, linear regression with one or more explanatory variables, binary dependent variables regression, instrumental variables regression, the use of panel data, and program evaluation. Assessment of the internal validity of estimated models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5263 Introduction to Econometrics II
Prerequisites: ECON 5213 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. Topics include microeconometric applications using panel data, qualitative choice and limited dependent variable models. Also, includes applications in macroeconomics and financial economics using regression analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5353 Austrian Economics: Theory & History
Description: Explore the Austrian school of economics, its origins, history and theory. Austrian economics views the market as a dynamic process with entrepreneurship as its driving force. In contrast to competing paradigms, the Austrian school consistently applies value subjectivity, acknowledges the highly heterogeneous nature of productive capital and relies primarily on a method that is specific for the social sciences. Same course as EEE 5103. May not be used for degree credit with EEE 4103 or ECON 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5603 Global Economics
Description: This course presents an introduction to economic issues from a global perspective for the non-specialist. It emphasizes the problems and challenges the process of globalization poses to national economies. The first part of the course presents the main theories of international trade and their relevance to explaining current global trade patterns. The second part of the course examines the foreign exchange market and the process of exchange rate determination. It covers various international financial issues such as global current account imbalances, the role of the dollar in international financial markets and international currency crises. Same course as GS 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5733 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national, and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6000 Research and Thesis
Prerequisites: Approval of advisory committee.
Description: Workshop for the exploration and development of research topics. Research leading to the PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6010 Seminar in Economic Policy
Description: Intensive analysis of selected problems in economic policy. Individual research, seminar reports and group discussion of reports. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6013 Microeconomic Theory I
Prerequisites: ECON 5223 or consent of instructor.
Description: Contemporary price and allocation theory with emphasis on comparative statics. Course previously offered as ECON 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6023 Microeconomic Theory II
Prerequisites: ECON 6013.
Description: Contemporary price and allocation theory with emphasis on general equilibrium analysis. Welfare economics. Course previously offered as ECON 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6033 Macroeconomic Theory I
Prerequisites: ECON 5033 or consent of instructor.
Description: National income, employment and the price level from the point of view of comparative statics. Course previously offered as ECON 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6043 Macroeconomic Theory II
Prerequisites: ECON 6033.
Description: National income, employment and the price level from the point of view of dynamics. Growth models. Previously offered as ECON 6143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6113 Seminar in Economic Theory
Description: Microeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6123 Seminar in Economic Theory
Description: Macroeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6213 Econometrics I
Prerequisites: ECON 5213 or consent of instructor.
Description: Theory and application of econometric theory to regression analysis. Topics include OLS, GLS, nonlinear least squares, and maximum likelihood estimation. Course previously offered as ECON 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6233 Time Series Econometrics
Prerequisites: ECON 5243 or equivalent.
Description: Advanced topics and fundamental elements in economic as well as financial time series models. Recently developed techniques with stationary and nonstationary time series, including Box-Jenkins and forecast methods, unit root, cointegration, error correction model, and VAR.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6243 Econometrics II
Prerequisites: ECON 6213.
Description: Advanced econometric theory and microeconometric applications. Topics include instrumental variables estimation, generalized method-of-moments estimation, limited dependent variable models, regression analysis using cross- section survey and panel data, and program evaluation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6323 Mathematical Economics I
Prerequisites: ECON 3113 and MATH 2163 or equivalent.
Description: Mathematical concepts of single variable and multivariate calculus, topological properties of Euclidean space, convergence, linear algebra, optimization theory and the Kuhn-Tucker Theorem with applications from economic theory. Previously offered as ECON 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6613 International Finance
Prerequisites: Permission of instructor.
Description: Open economy macro-economics and the role of devaluation, fiscal and monetary policy in the open economy, monetary approach to the balance of payments, portfolio balance and asset market approaches to the determination of exchange rates. Course previously offered as ECON 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6623 Economic Development I
Prerequisites: Permission of instructor.
Description: Characteristics and problems of less-developed countries. Criteria of growth and development with emphasis on strategies for development. The role of capital, labor, technological progress and entrepreneurship. Growth models. Course previously offered as ECON 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6633 International Trade
Prerequisites: Permission of instructor.
Description: International trade and commercial policy. Comparative advantage, general equilibrium and modern trade theories; welfare implications of international resource allocation models; the theory of protection and international interdependence. Course previously offered as ECON 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6643 Economic Development II
Prerequisites: Permission of instructor.
Description: Major problems of development policy. Inflation and mobilization of capital, investment criteria, agriculture, foreign trade, population and manpower, planning and programming methods. Course previously offered as ECON 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6903 Regional Economic Analysis and Policy
Description: Selected topics in location theory, regional economic growth and policies toward regional development in the U.S. Course previously offered as ECON 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6913 Urban Economics
Prerequisites: Permission of instructor.
Description: The urban area as an economic system. Problems of economic policy in an urban environment. Course previously offered as ECON 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

LSB 1113 Law in Society
Description: Forms and types of law and their evolution, including antitrust, ecology, consumerism and civil rights. Political, social and economic forces affecting legal developments. Legal needs of society and the probable future direction of the law. Course previously offered as BUSL 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 3010 Special Topics in Legal Studies in Business
Prerequisites: LSB 3213, prior consent of instructor.
Description: Analysis of a contemporary topic in business law. Changing social issues and trends in legal studies in business. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

LSB 3011 Name, Image, and Likeness and the Law
Description: In this course, students will learn the primary legal principles surrounding the right of publicity, which in the context of college athletes is commonly referred to as name, image, and likeness rights. Students will learn the legal theory that underpins the current debate over granting name, image, and likeness rights to collegiate athletes. This course covers several different legal concepts, including the separation of powers, contracts, agency law, and intellectual property law. After completing this course, students will understand the rules governing the licensing of name, image, and likeness rights for college athletes. Students will also gain experience in negotiating and drafting mock contracts.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 3213 Legal and Regulatory Environment of Business
Prerequisites: Junior standing.
Description: General concepts regarding the nature of the legal system, ethical issues in business decision making, dispute resolution processes, basic constitutional limitations on the power of government to regulate business activity, the nature of government regulation, fundamental principles of tort and contract law. Course previously offered as BUSL 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4013 Law and Social Media
Prerequisites: LSB 3213.
Description: This course introduces the fundamentals of social media law. Legal topics include: marketing, intellectual property, employment, privacy, free speech and fundraising. Methods to address the risks of these legal issues will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4113 White Collar Criminal
Prerequisites: LSB 3213.
Description: This course explores white-collar crime including illegal, unethical and deviant activities of organizations and individuals. The course examines causes of the behavior as well as its impact on business stakeholders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4323 Law of Commercial Transactions and Debtor-Creditor Relationships
Prerequisites: LSB 3213.
Description: Concentrated study of law relating to certain commercial transactions and debtor/creditor relationships. Includes law of sales, negotiable instruments, secured transactions, suretyship and bankruptcy. Previously offered as LSB 3323 and BUSL 3323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4403 Law and Entrepreneurship
Prerequisites: ECON 3213 or permission of instructor.
Description: Explores how to recognize and ethically manage legal risks within an emerging enterprise in order to optimize opportunities. Topics include: evaluating appropriate business organizations; understanding alternatives for obtaining capital; using employees to help achieve organizational goals; protecting intellectual property; and complying with the regulatory environment when advertising and marketing a product or service.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4413 Law of Business Organizations
Prerequisites: LSB 3213.
Description: General principles of law relating to the formation, operation and termination of various forms of business organizations. Includes a study of the law of agency, partnerships and corporations. Course previously offered as BUSL 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4423 Employment Law (D)
Prerequisites: LSB 3213 or equivalent.
Description: Legal foundations of employment in the United States. Contemporary topics relating to the employment environment such as state legislative and judicial limitations on employment at will doctrine, federal legislation relating to equal employment opportunity and affirmative action, fair labor standards, safety in the work place and state workers compensation laws. Previously offered as LSB 3423 and BUSL 3423. No degree credit for students with credit in LSB 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Diversity

LSB 4513 White Collar Criminal Law
Description: This course is a comprehensive examination of white-collar crime - the illegal, unethical, or deviant activities of respectable institutions and individuals. The class will emphasize how courts, juries and the public perceive and react to these crimes. The causes and impact on the business community and society will be examined. Students will study contemporary and notorious cases. Students will brief cases in handouts studying the major sources of law in the prosecution of white collar criminal cases by the federal government. Traditional and active learning methods will be used.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4523 Law of Real Property
Prerequisites: LSB 3213 or equivalent.
Description: Nature of real property and of the legal transactions relating thereto. Topics may include deeds and conveyancing, landlord-tenant relationships, mortgages, easements, oil and gas interests, types of estates, joint ownership, and legal descriptions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

LSB 4633 Legal Aspects of International Business Transactions (G)
Prerequisites: LSB 3213 or equivalent.
Description: Legal aspects of operating a business entity engaged in international commerce. Topics may include: foreign business organizations, U.S. taxation of foreign investors, common clauses in transnational contracts, problems of technology transfer on the international market, anti-trust aspects of international business, and jurisdictional problems in resolving disputes. Course previously offered as BUSL 4633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

LSB 5010 Research and Independent Studies
Description: A workshop arrangement or supervised independent study. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Management

LSB 5163 Legal Environment of Business
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Legal environment within which business must operate. Nature and source of law, the operation of the judicial system, the operation of administrative agencies, selected Constitutional provisions frequently involved in litigation of business problems, and selected substantive legal areas having a direct relationship with business operation and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5203 Foundations of Issue and Conflict Management
Description: Provides professionals from all fields with the skills necessary to handle conflicts, solve disputes, influence decisions and develop positive interpersonal relationships. It provides an overview of the alternative dispute resolution processes by utilizing readings, research, discussion and role-playing exercises.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5213 Mediation and Facilitation: Theories and Practice
Prerequisites: ECON 5203.
Description: This course examines the theories, skills, and boundaries of the mediation and facilitation processes, and analyzes the role of the third party neutral in the intervention and resolution conflicts. Ethical, practical and legal constraints are also addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5233 Introduction to Arbitration and Litigation
Prerequisites: LSB 5203.
Description: This course examines the elements and process of arbitration, situations, in which arbitration skills are required, including construction, securities, civil conflicts, labor disputes and commercial contracts. Topics include comparisons to litigation, the role of judicial review and the enforcement of arbitration awards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

LSB 5290 Seminar in Negotiation and Alternative Dispute Resolution
Prerequisites: Consent of instructor.
Description: Individual investigations in the areas of issue and conflict management under the direct supervision of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Management

LSB 5423 Employment Law
Prerequisites: LSB 3213 or equivalent or permission of instructor.
Description: Legal foundations of employment in the United States. Contemporary topics relating to the employment environment such as state legislative and judicial limitations on employment at will doctrine, federal legislation relating to equal employment opportunity and affirmative action, fair labor standards, collective bargaining, and safety in the work place. Students may not take both LSB 4423 and LSB 5423 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

Undergraduate Programs

- Economics, BS (p. 1263)
- Economics: General Option, BA (p. 1266)
- Economics: International Economics Relations, BA (p. 1269)
- Economics: Pre-Dental, BS (p. 1272)
- Economics: Pre-Medical, BS (p. 1275)
- Economics: Pre-Veterinary, BS (p. 1278)

Minors

- Economics (Arts and Sciences) (ECAS), Minor (p. 1262)

Economics (Arts and Sciences) (ECAS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Haley McMahon, 407 LSE, 405-744-5565

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 15 hours of ECON (p. 1252) courses

Other Requirements

- 9 hours must be upper-division.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Economics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Options		
Select one option (p. 1263)		33
Hours Subtotal		**48**
Electives [2]		
Select 19 hours		19
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**19**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be substituted for these areas.

Options

General Option

Code	Title	Hours
Select 15 hours upper-division ECON		15
Select 18 hours of upper-division electives of which 3 must be outside the field of Economics [2]		18
Electives		
STAT 3013 is recommended		
1 hour may need to be upper-division		

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be substituted for these areas.

Graduate Preparation Option

Code	Title	Hours
ECON 4213	Econometric Methods	3
or ECON 4223	Business and Economic Forecasting	
Select 9 additional hours upper-division ECON		9
MATH 3013	Linear Algebra (Q)	3
STAT 3013	Intermediate Statistical Analysis	3
Select 12 hours of upper-division electives of which 3 must be outside the field of Economics		12
Electives		
The following are required:		
MATH 2144	Calculus I (Q)	
MATH 2153	Calculus II (Q)	
MATH 2163	Calculus III	
1 hour may need to be upper-division.		

Pre-Law Preparation Option

Code	Title	Hours
Select 15 hours upper-division ECON		15
PHIL 1313	Logic and Critical Thinking (Q)	3
POLS 3983	Courts and Judicial Process (S)	3
Select one of the following:		3
POLS 2023	The Individual And The Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
Select 9 hours of the upper-division electives of which 3 must be outside the field of Economics		9
Electives		
7 hours may need to be upper-division		

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q) (MATH 2144 required for Graduate Preparation Option)	3
ECON 2103	Introduction to Microeconomics (S)	3
General Education courses		6
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
General Education courses (MATH 2153 required for Graduate Preparation option)		6
	Hours	**15**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
General Education courses (MATH 2163 required for Graduate Preparation option)		12
	Hours	**15**
Spring		
ECON 3123	Intermediate Macroeconomics	3
Major, College, and Elective courses (MATH 3103 required for Graduate Preparation option)		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses (STAT 3013 required for Graduate Preparation option)		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
ECON 4933	Applied Economics	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Economics: General Option, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
Int'l Econ. Rel:		
Select 5 hours of foreign language (2000-level or above)		5
International courses recommended for remainder		4
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
General Option Requirements		
Select 15 hours in Economics courses 3000-level or above		15
Select 18 hours of upper-division electives of which three hours must be outside the field of Economics [2]		18
Electives		
STAT 3013 recommended		
Hours Subtotal		**48**
Electives		
Select 10 hours		10
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour		
Hours Subtotal		**10**
Total Hours		**120**

1 College and Departmental Requirements that may be used to meet General Education Requirements.

2 With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be substituted for these areas.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
General Education courses		5
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
1713 First Semester Foreign Language		3

General Education courses		9
	Hours	**15**
Spring		
ECON 3123	Intermediate Macroeconomics	3
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
ECON 4993	Economics Honors Thesis	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Economics: International Economics Relations, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
Int'l Econ. Rel:		
Select 5 hours of foreign language (2000-level or above)		5
International courses recommended for remainder		4
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Option Requirements		
ECON 3613	International Economic Relations (GS)	3
ECON 4643	International Economic Development (GS)	3
ENGL 3323	Technical Writing	3
or BCOM 3333	Advanced Business Communication	
Select one of the following:		6
MKTG 3213 & MKTG 4553	Marketing (S) and International Marketing	
LSB 3213 & LSB 4633	Legal and Regulatory Environment of Business and Legal Aspects of International Business Transactions (G)	
Select 9 hours upper-division Economics electives		9
Select 9 hours upper-division Arts & Sciences courses with International Dimension (I)		9
Electives		
ACCT 2103 required		
STAT 3013 recommended		
Hours Subtotal		**48**
Electives		
Select 10 hours		10
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour		
Hours Subtotal		**10**
Total Hours		**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
General Education courses		5
	Hours	**15**

Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
ECON 3123	Intermediate Macroeconomics	3
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
ECON 4993	Economics Honors Thesis	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Economics: Pre-Dental, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		
BIOL 1604	Animal Biology	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Select 12 hours of upper-division ECON		12
Pre-Dental Option		
BIOC 3653	Survey of Biochemistry	3
or BIOC 3713	Biochemistry I	
BIOL 3204	Physiology	4
or BIOL 3214	Human Anatomy	
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
PSYC 1113	Introductory Psychology (S)	3
Hours Subtotal		**58**
Electives		
Select 8 hours		8
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**8**
Total Hours		**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.

- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
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   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
BIOL 1113	Introductory Biology (N)	3
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
BIOL 1604	Animal Biology	4

General Education courses		3
	Hours	**16**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
CHEM 1314	Chemistry I (LN)	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		4
	Hours	**15**
Spring		
ECON 3123	Intermediate Macroeconomics	3
CHEM 1515	Chemistry II (LN)	5
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Major, College, and Elective courses		3
	Hours	**15**
Junior		
Fall		
Upper-division ECON		3
BIOL 3204 or BIOL 3214	Physiology or Human Anatomy	4
CHEM 3053	Organic Chemistry I	3
Major, College, and Elective courses		5
	Hours	**15**
Spring		
Upper-division ECON		3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
BIOC 3653 or BIOC 3713	Survey of Biochemistry or Biochemistry I	3
Major, College, and Elective courses		4
	Hours	**15**
Senior		
Fall		
Upper-division ECON		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
ECON 4933	Applied Economics	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Economics: Pre-Medical, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		
BIOL 1604	Animal Biology	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Select 12 hours of upper-division ECON		12
Pre-Medical Option		
BIOC 3653	Survey of Biochemistry	3
or BIOC 3713	Biochemistry I	
BIOL 3204	Physiology	4
or BIOL 3214	Human Anatomy	
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
or BIOL 3023	General Genetics	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
Hours Subtotal		**58**
Electives		
Select 8 hours		8
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**8**
Total Hours		**120**

1 College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
BIOL 1113	Introductory Biology (N)	3
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3

STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
BIOL 1604	Animal Biology	4
General Education courses		3
	Hours	**16**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
CHEM 1314	Chemistry I (LN)	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		4
	Hours	**15**
Spring		
ECON 3123	Intermediate Macroeconomics	3
CHEM 1515	Chemistry II (LN)	5
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Major, College, and Elective courses		3
	Hours	**15**
Junior		
Fall		
Upper-division ECON		3
CHEM 3053	Organic Chemistry I	3
BIOL 3204 or BIOL 3214	Physiology or Human Anatomy	4
Major, College, and Elective courses		5
	Hours	**15**
Spring		
Upper-division ECON		3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
BIOC 3653 or BIOC 3713	Survey of Biochemistry or Biochemistry I	3
Major, College, and Elective courses		4
	Hours	**15**
Senior		
Fall		
Upper-division ECON		3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Major, College, and Elective courses		7
	Hours	**15**
Spring		
ECON 4933	Applied Economics	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Economics: Pre-Veterinary, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		
BIOL 1604	Animal Biology	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.00.		
Core Courses		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Select 12 hours of upper-division ECON		12
Pre-Veterinary Option		
Select 3 hours of upper-division ECON		3
ANSI 3543	Principles of Animal Nutrition	3
BIOC 3653	Survey of Biochemistry	3
or BIOC 3713	Biochemistry I	
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
ENGL 3323	Technical Writing	3
or SPCH 2713	Introduction to Speech Communication (S)	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
PSYC 1113	Introductory Psychology (S)	3
Hours Subtotal		**63**
Electives		
Select 3 hours		3
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**3**
Total Hours		**120**

1 College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all ECON courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
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   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

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- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
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- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2103	Business Calculus (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
BIOL 1113	Introductory Biology (N)	3
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3

STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
ECON 2203	Introduction to Macroeconomics	3
BIOL 1604	Animal Biology	4
General Education courses		3
	Hours	**16**
Sophomore		
Fall		
ECON 3113	Intermediate Microeconomics	3
CHEM 1314	Chemistry I (LN)	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		6
	Hours	**17**
Spring		
ECON 3123	Intermediate Macroeconomics	3
CHEM 1515	Chemistry II (LN)	5
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Major, College, and Elective courses		3
	Hours	**15**
Junior		
Fall		
Upper-division ECON		3
ANSI 3543	Principles of Animal Nutrition	3
CHEM 3053	Organic Chemistry I	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
Upper-division ECON		3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
BIOC 3653 or BIOC 3713	Survey of Biochemistry or Biochemistry I	3
ENGL 3323 or SPCH 2713	Technical Writing or Introduction to Speech Communication (S)	3
	Hours	**14**
Senior		
Fall		
Upper-division ECON		3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Major, College, and Elective courses		6
	Hours	**14**
Spring		
ECON 4933	Applied Economics	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

English

The Department of English prides itself on the diversity of its course offerings and on its small lecture and discussion classes. The department offers a full range of courses in seven areas: literature, creative writing, screen studies, linguistics, teaching English as a second language, rhetoric and writing studies. The number of students in any English class rarely exceeds 30; and in first-year composition the enrollment limit is 19. The maximum number of students in a graduate-level class is 12.

An undergraduate English major may select from five options: the traditional literature-based option emphasizes literary appreciation and analysis and allows ample opportunity for discussion, independent thinking, and writing. English majors can also add a teaching certificate to this option by completing the required education courses as electives. The creative writing option includes fiction writing, poetry writing, and creative nonfiction, with emphasis on interactive workshop classes in which students hone their skills. The third option, screen studies, focuses on the study of the history, theory, and aesthetics of cinema, television, and new media. And the fourth option, rhetoric and writing studies, is for majors who seek careers in which their writing skills will be applied to the task of generating and exchanging ideas in professional settings. The fifth option is a pre-law track for students planning to go into the legal professions.

Many English majors pursue careers directly related to their major, such as those in teaching, editing, or publishing, or they may decide to go to graduate school in order to teach in a college or university. Other students find that an English major is excellent preparation for law school or for careers in the ministry, government, business, counseling, social work, or library science.

The Department of English actively participates in the University Honors Program. Students who qualify for Honors are eligible to enroll in restricted courses and to write a Senior Honors Thesis. The department offers Honors courses at all levels, including an Honors seminar on a different topic each year.

A Bachelor of Arts in English requires 45 hours of lower- and upper-division English courses. An English minor requires 18 hours of English, at least nine of which must be upper-division (These hours do not include Freshman Composition.). The department also offers minors in Creative Writing, Linguistics, Professional Writing, and Screen Studies. Undergraduate students majoring in English or in another discipline may also wish to earn a Certificate in TESOL (Teaching English to Speakers of Other Languages).

Courses

ENGL 0003 Academic English for Graduate Students
Description: Study and practice of English listening, reading and speaking skills required for graduate study. Graded on satisfactory-unsatisfactory basis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1010 Studies in English Composition
Description: Special study in composition to allow transfer students to fulfill general education requirements as established by Regent's policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 1113 Composition I
Description: The fundamentals of expository writing with emphasis on structure, development and style.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1123 International Freshman Composition I
Description: Restricted to students whose native language is not English. Expository writing with emphasis on structure and development. Special attention to problems of English as a second language. This course may be substituted for ENGL 1113. Previously offered as ENGL 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1213 Composition II
Prerequisites: ENGL 1113 or ENGL 1123 or ENGL 1313.
Description: Expository composition with emphasis on technique and style through intensive and extensive readings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1223 International Freshman Composition II
Prerequisites: ENGL 1113 or ENGL 1123.
Description: Restricted to students whose native language is not English. Expository composition with emphasis on technique and style in writing research papers. May be substituted for ENGL 1213. Previously offered as ENGL 1033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1313 Critical Analysis and Writing I
Description: Expository writing forms, including summary, critique, and synthesis. Writing assignments based on readings from across the curriculum. May be substituted for ENGL 1113 for gifted writers who seek a more challenging course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1413 Critical Analysis and Writing II
Description: Critical thinking, research, and writing skills necessary for success in courses across the curriculum. Some sections available for honors credit. May be substituted for ENGL 1213 for gifted writers who seek a more challenging course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 1923 Classics Old and New (H)
Description: What's on your list of must-read books? In this course, you'll get to dive deep into some of the most celebrated (and controversial) works of literature in a small, discussion-based class. Guided reading, short writing, and creative activities designed to spark your literary curiosity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2233 Writing as a Profession (H)
Description: An overview of genres and styles of writing in professional contexts, including organizations, science and industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2243 Language, Text and Culture (GH)
Description: Investigation of how human language relates to culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 2253 Theory and Practice of Digital Studies
Description: Introduction to digital studies including historical, cultural, and technological contexts. Students will produce digital projects interrogating issues and challenges of digital cultures including webpages, podcasts, and infographics. No prior computer experience needed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 2393 Popular Fiction (H)
Description: Readings in several related popular genres of fiction such as science fiction, fantasy, horror, romance, crime fiction, Westerns, graphic novels, comics, and/or fan fiction. Small, discussion-based classes investigate how contemporary popular fiction depicts diverse experiences and identities and engages different communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2413 Exploring Literature (DH)
Description: Readings from a wide range of literature depicting diverse experiences and identities. Class discussions cover literary forms and meanings, along with the imaginative depictions of different communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 2443 Languages of the World (GS)
Description: A comprehensive survey of world languages. The essential structural and historical organization of languages. The process of languages as a basic human function. Same course as FLL 2443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ENGL 2453 Introduction to Film and Television (H)
Description: Introduction to the formal analysis of moving images - film, television, and new media - in aesthetic, cultural, and political contexts. Students discuss and write about films and other moving images screened in class.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2513 Introduction to Creative Writing (H)
Description: Literary composition with emphasis on techniques and style through readings and writings in fiction, poetry and creative nonfiction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2543 Survey of British Literature I (H)
Description: The beginnings through the Neo-Classic Period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2653 Survey of British Literature II (H)
Description: The Romantic Period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2773 Survey of American Literature I (H)
Description: The Puritans through the Romantic Period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 2883 Survey of American Literature II (DH)
Description: The Romantic Period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 2890 Honors Experience in English
Prerequisites: Honors Program participation and concurrent enrollment in a designated ENGL course.
Description: A supplemental Honors experience in English to partner concurrently with designated English course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 2963 Survey of Postcolonial and Indigenous Literatures (GH)
Description: Introduction to the literature of the indigenous people and postcolonial nations of the world. Previously offered as ENGL 3173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3030 Writing the Short Story (F)
Description: This workshop will focus on the creative process of writing original short stories. Because this class focuses on writing and the creative process, we will examine our own work and the work of published fiction writers. The type, form, and audience of short stories covered in this class will vary. Previously offered as ENGL 3033. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3040 Poetry Writing: Free Verse and Formal (F)
Description: This workshop will focus on the creative process of writing original free verse and formal poetry. Because this class focuses on writing and the creative process, we will examine our own work and the work of published poetry writers. The type, form, and audience covered in this class will vary. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3060 Writing Flash Nonfiction (F)
Description: Students write and workshop original creative nonfiction in the flash nonfiction form and read and discuss published flash nonfiction to learn and practice craft techniques of this short and dynamic genre. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3063 Introduction to Linguistics: Exploring Human Language
Description: Introduction to the study of how languages work and how they're used. Looks at speech sounds, how words are formed, the structure of phrases and sentences, the use of language in interaction. Considers English and other languages of the world. Same course as ENGL 4063. May not be used for degree credit with ENGL 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3073 Film Production
Description: An overview of film production introducing students pre-production; the basics of on-set production; and the mechanics of camera operation and editing software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3083 Global Approaches to Ecological Storytelling (G)
Description: This writing course focuses on the development, practice, traditions, concerns, and characteristics of ecological writing through a collaboration of global scientific research, international observation, and respectful empathic cultural communication through narrative. With collaboration among critical thinkers and narrative writers, we can combine the power of storytelling with scientific rigor to convey complex ideas about global biodiversity loss.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: International Dimension

ENGL 3113 Science, Literature, and Culture (H)
Description: This course provides students with opportunities for critical reading, thinking, discussion, and writing about the physical and life sciences, their history, and the cultural roles they play, especially in relation to literature. This course is structured as a general survey of the social and cultural study of science, examining major works in the history, philosophy, and sociology of science in conjunction with major works of English-language literature that engage directly with the sciences. Same course as AMST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3123 Mythology (H)
Description: Myths, their cultural context, and their place in world literature. Same course as LATN 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3133 Readings in Multi-Ethnic American Literature
Description: Literature by American writers of diverse ethnicities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3143 Readings in Postcolonial Literature (GH)
Description: Literature in English by writers from parts of the world once colonized by the West.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3153 Readings in Literature by Women (DH)
Description: The collection of literature written by women in England and America, classical and modern figures. Previously offered as ENGL 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3163 Literatures of the Ancient World (H)
Description: Readings and topics in the cultures and literatures of the ancient world. Same course as LL 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3170 Readings in Literature and Other Disciplines
Description: A study of literature and its historical or thematic connections to one or more of the fine arts or disciplines in the humanities or social sciences. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3183 Native American Literature (DH)
Description: Origins and development of a literary tradition in its historical and cultural context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3190 Readings in Postcolonial and Multiethnic Literature
Description: Principal literary and critical texts written in English either by writers from parts of the world once colonized by the West or by American writers of different ethnic origins whose work bridges cultures. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3193 African-American Literature (DH)
Description: Origins and development of a literary tradition in its historical and cultural context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3200 Special Problems in Language and Literature
Prerequisites: 9 credit hours of English.
Description: Specialized readings and independent study. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 3203 Advanced Composition
Prerequisites: 9 hours of English.
Description: An advanced writing course based on contemporary theories of composition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3223 Professional Writing Theory
Description: Major theories, issues and methodologies in professional writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3243 Literary Theory and Criticism
Description: Study of the major works of critical theory and literary criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3263 Film & TV Criticism
Description: An inquiry into the major concepts and debates of mass-media theory. Issues addressed include the nature of the relation between images and reality; the psychological and cultural significance of style in film, television, and new media representations; and the role that mass-media play in the organization of social and political relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3273 YouTube and Online Communities (H)
Description: This course offers a critical assessment of the video-sharing platform YouTube. Course readings and written assignments emphasize the aesthetics and industrial practices of the platform. Topics include genres of content creation, the creator economy, influencer culture, content moderation and community guidelines, copyright infringement and relation to legacy media, disinformation and conspiracy theories, and political radicalization.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3293 Media and the Environment (H)
Description: This course examines the relationship between media industries and the natural environment. Topics covered include depictions of non-human nature (animals and plants), representations of climate change, sustainable media production, and media's relation to extractive industries and energy production.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3323 Technical Writing
Prerequisites: ENGL 1113 or ENGL 1213 or ENGL 1313 and junior standing.
Description: Applied writing in areas of specialization. Intensive practice in professional/technical writing genres, styles, research techniques and editing for specialized audiences. This course may be substituted for ENGL 1213 with an "A" or "B" in ENGL 1113 and consent of the student's college.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3333 Short Story (H)
Description: Origins, development, theory and craft of the short story.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3343 Reading Poetry
Description: This course in poetic literacy will introduce students to the major poetic forms, to changes in aesthetics of poetry over time, to figurative language, to prosody, to the particular interpretative skills required to understand and write about the genre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3353 Film and Literature
Description: A study of film and literature in relation, whether by way of adaptation studies, the distinct "grammars" of images and language, or the emergence of film and literary forms alongside each other in aesthetic movements.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3363 Readings in Drama (H)
Description: Close study of representative plays of various periods (for example, Classical, Renaissance, Restoration, Modern, and others) and of the main formal categories (tragedy, comedy).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3373 Readings in Nonfiction
Description: Theory and practice of creative nonfiction in English, including autobiography, travel writing, literary journalism, correspondence and the essay.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3383 Readings in Narrative
Description: Readings in narrative of different periods and different genres.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3410 Readings in Popular Fiction
Description: Historical study of a popular fictional genre's development. Course content varies by semester; individual courses may focus on science fiction, fantasy, detective fiction, the Western, horror and the Gothic, romance, graphic novels, or other popular narrative categories. Exploration of the characteristics and evolution of the genre while developing skills in reading, writing and thinking critically. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3413 Science Fiction (H)
Description: This course will survey the development of science fiction literature as a genre, focusing on major figures and important topics from its beginnings to the contemporary scene. In examining the evolution of science fiction storytelling, we will also investigate how science fiction both reflects and influences broader historical and cultural changes in the 19th, 20th and 21st centuries. Same course as AMST 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3433 Introduction to Television Studies (H)
Description: A focused examination of one aspect of television culture, technology, history and/or style. While the particular topics to be considered vary, and include everything from TV genres to TV theories, in each instance the course gives students an in-depth understanding of how television shapes the social and political world in which we live. Previously offered as ENGL 3430.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3440 Studies in Film Genre
Description: A comparative study of types of films both inside the Hollywood system and in other national cinemas. The western, the film noir and the musical, as well as genres from such countries as France, Germany and Japan. Focused knowledge of selected genres, a sense of the economic imperatives that necessitate generic "contracts" between film producers and viewers and knowledge of the history of specific genres. Previously offered as ENGL 3443. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3453 History of American Film (H)
Description: Examines the history of cinema in the U.S. from its beginnings until the present, addressing such issues as: the origins of cinema, the coming of sound, American film genres, the Hollywood studio system, censorship, the challenge of television, the new American cinema of the 1970s, the politics of independent film production, and the rise of computer-generated imagery.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 3463 History of International Film (GH)
Description: Introduction to the history of international cinema and the principal eras in film history, focusing on the moments when different national cinemas flourished.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ENGL 3473 Race, Gender, and Ethnicity in American Film (D)
Description: A survey of race, gender, and ethnicity as they have been represented in American films. Same course as AMST 3473.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Diversity

ENGL 3483 Screenwriting
Description: Introduction to the craft of screenwriting. Students will write and workshop their own screenplays and treatments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 3503 Television and American Society (DH)
Description: Examination of television within the social and cultural context of the U.S. Looks at the aesthetic and industrial practices that shape representation on TV and the effects of those practices, particularly for socially disempowered groups. Same course as AMST 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3813 Readings in the American Experience (DH)
Description: Life in the New World from the colonial to the postmodern era using a multiplicity of interdisciplinary texts that demonstrate the emergence and ongoing evolution of distinctive American identities. Same course as AMST 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

ENGL 3890 Advanced Honors Experience in English
Prerequisites: Honors Program participation and concurrent enrollment in a designated ENGL course.
Description: A supplemental advanced honors experience in English to partner concurrently with designated upper-division English course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 3903 Writing Center Theory and Practice
Prerequisites: Six hours English or consent of instructor.
Description: Writing center research with practical applications in writing instruction.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 3933 Shakespeare (H)
Description: Recurring themes and their variations in Shakespeare's work. Nature of these genres in the period and Shakespeare's innovations. The structure and language of the plays, occasional examination of historical documents and contexts, modern performances, and critical essays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4003 History of the English Language
Description: The growth of the English language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4013 English Grammar
Description: The traditional terminology and concepts of English grammar leading or evolving into the several current systems of description. May not be used for degree credit with ENGL 5130.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4033 Discourse Analysis
Description: Introduction to the analysis of the language used in spoken and written discourse contexts in a variety of genres. May not be used for degree credit with ENGL 5340.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4043 Teaching English to Speakers of Other Languages
Description: Designed to develop the skills and techniques needed in teaching English to speakers of other languages (TESOL). Examines the theoretical issues behind the practice and methodologies and classroom techniques, including the testing of English and the selection and preparation of teaching materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4053 Film Directing
Description: An overview of film direction introducing students to the dramatic elements of film production and best practices for working with cast and crew by way of hands-on experience of film directing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4073 Introduction to Sociolinguistics
Description: The study of how languages and varieties vary in social contexts and how they are regarded. Same course as CDIS 4073. May not be used for degree credit with ENGL 5173 or CDIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4080 Studies in Linguistics
Description: Study of a topic in linguistics, chosen at the instructor's discretion. May not be used for degree credit with ENGL 5140 or ENGL 6410. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4083 Applied Linguistics
Description: Introduction to the applied study of language in use, including aspects of discourse, power, identity, and language choice among other topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4093 Language in America (DS)
Description: Historical development of American English. Regional, social and cultural language differences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Diversity, Society & Human Behavior

ENGL 4100 Studies in Medieval British Literature
Description: Special topics encompassing the many different ethnic traditions and genres found in medieval British literature. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4110 Studies in 16th Century British Literature
Description: Literature themes of the English Renaissance focusing on related authors and topics. Authors include Shakespeare, Spenser, Sidney, Marlowe, Raleigh, Wyatt, and Surrey. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4120 Studies in 17th Century British Literature
Description: Obtaining an understanding of 17th century British literature while developing skills as a critical thinker, a reader of literary texts and a writer of expository prose. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4130 Studies in 18th Century British Literature
Description: Selected topics in British literature from 1660-1800. Various writers and their works and themes and literary developments of the period. Topics vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4143 Language and Technology
Description: Introduction to the use of linguistic knowledge in computer applications today. How the study of language has contributed to the advancement of technology and how certain computational problems have influenced the way linguists study language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4160 Studies in 19th Century British Literature
Description: Exploration of the literary culture of nineteenth-century Britain. Topics might range from romantic poetry to the Victorian novel. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4170 Studies in 20th Century British Literature
Description: Various topics focusing on the literature and culture of Britain and Ireland, such as 20th century British and Irish fiction, poetry, or drama; The City; The Irish Renaissance. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4180 Internship in TESL
Prerequisites: ENGL 4043 or CIED 4133 or permission from instructor. Note: CIED 4133 (formerly EDUC 4110) has been submitted for approval for a name change.
Description: This internship is designed to provide instructional support and professional mentoring for students seeking the undergraduate certificate in TESOL (Teaching English to Speakers of Other Languages). Previously offered as ENGL 4173. Offered for variable credit, 3-4 credit hours, maximum of 4 credit hours.
Credit hours: 3-4
Contact hours: Contact: 3-4 Other: 3-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 4200 Studies in Early American Literature
Description: Readings and topics in early American literature and culture. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4210 Studies in 19th Century American Literature
Description: Themes in 19th century American literature with attention to social and cultural contexts. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4220 Studies in 20th Century American Literature
Description: Topics focusing on the literature and culture of the United States, such as 20th century American fiction, poetry, or drama; alienation and activism; the impact of science and technology. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4223 Introduction to Old English
Description: The basics of pronunciation, vocabulary, and grammar, enabling students to read short works in prose and poetry. Previously offered as ENGL 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4230 Literature of Diversity
Description: Readings on topics such as gender, race, ethnicity, sexuality, disability, and class. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4263 Moving Image Aesthetics (H)
Description: A historical and theoretical examination of the stylistic and affective dimension of moving images, including questions of beauty and ugliness, cuteness and the graphic, enjoyment and disgust, high and low culture. Screenings will vary from semester to semester, but may include examples of realism, lo-fi production, prestige pictures, documentary, music videos and cult cinema, and will include material from both American and international contexts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4300 Studies in Romanticism
Description: Principle works of Romanticism, reflecting the cultural, social, and political developments. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4310 Studies in Modernism
Description: Selected topics in literature of the early twentieth century. Texts and themes will vary by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4320 Contemporary Literature
Description: Studies and topics in contemporary literature. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4333 Studies in Native American Literature
Description: Readings and topics in Native American Literature and culture. Previously offered as ENGL 4330.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4340 Studies in Postcolonial and Multi-ethnic Literature
Description: Readings and topics in postcolonial literature and culture or multiethnic literature and culture. Offered for variable credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4350 Contemporary International Cinema
Description: Examines major trends in contemporary international cinema of the last fifteen years. National cinema may include France, Germany, Italy, Spain, Sweden, China, Taiwan, India, South Korea, and Russia, amongst others. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 4400 Studies in Regional Literature
Description: Literature of a nation such as Ireland or Canada, or of a region such as the American Southwest. Topic varies by semester. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4450 Culture and the Moving Image
Prerequisites: ENGL 2453.
Description: An advanced class that examines in-depth the relation between moving images and a particular cultural phenomenon, including mass media and the production of violence, the moving image as common culture, television and the construction of domestic life, to name only a few possibilities. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 4513 Literary Art in the Bible
Description: This course will explore literary devices (foreshadowing, allegory, symbolism, etc) and how they are implemented in biblical texts. The Bible will be the primary focus, but comparative texts will be used to build an understanding and recognition of literary devices. We will examine the texts and their history on their own terms, rather than promote a particular religious or non-religious viewpoint. Same course as REL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4520 Problems in English
Prerequisites: 12 credit hours of English.
Description: Specialized readings and independent studies. May not be used for degree credit with ENGL 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: English

ENGL 4523 Professional Writing Internship
Prerequisites: ENGL 4543 and ENGL 4553 or permission of instructor.
Description: Supervised work-and-learning experience in writing, editing, document design, and research in the workplace. May not be used for degree credit with ENGL 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4530 Studies in Professional Writing
Prerequisites: Six credit hours of English.
Description: Selected topics in professional writing, focusing on a particular theme, issue or theoretical approach. Previously offered as ENGL 4533. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours. May not be used for degree credit with ENGL 5560.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4543 Style and Editing
Description: An intensive study of writing style and editing from the sentence level (including diction and grammatical arrangement) to the levels of genres of communication. Writing assignments on style for different audiences. May not be used for degree credit with ENGL 5593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4553 Visual Rhetoric and Design
Description: Major theories, issues, and methodologies in visual rhetoric and design. Practice of theory through guided composing work. May not be used for degree credit with ENGL 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4573 Games and Writing
Description: Major theories, practices, and methods of digital and procedural rhetorics. Students will study, analyze, and design games, with special emphasis on how they make persuasive appeals through software and code.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4583 Writing for the Public
Description: Examination and practice of writing for varied publics. Students will produce projects grounded in public advocacy, nonprofit, and/or community sites situated in local, national, and/or web spaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4593 Writing Across the Disciplines
Description: A course that explores writing in multiple disciplinary contexts and the complexities that come with entering a particular academic discourse community. We will examine writing in STEM, the social sciences, and the humanities and analyze the ways in which writing in these disciplines changes and adapts. This course aims to help students understand different rhetorical moves made in discipline-specific writing and how this knowledge transfers to their own writing abilities and growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4600 Studies in Chaucer or Milton
Description: Various topics focusing on the works of Chaucer or Milton. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4620 Creative Nonfiction: Writing Memoir and the Personal Essay
Description: Students learn and practice the specialized craft techniques of creative nonfiction by writing and workshopping original memoirs and personal essays and reading and discussing published memoirs and personal essays. Previously offered and same course as ENGL 4460. May not be used for degree credit with ENGL 5720 or ENGL 6160. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4630 Writing the Novel
Description: Students will actively participate in a lively workshop environment focusing on the creative process of writing original novels. The types, forms, and audience of novels covered in this course will vary. Because this class focuses on writing and the creative process, we will examine our own work and the work of published novelists. Previously offered as ENGL 4633. May not be used for degree credit with ENGL 5730 or ENGL 6130. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4640 Poetry Writing: Lyric and Narrative
Description: Students will actively participate in a lively workshop environment focusing on the creative process of writing lyric and/or narrative poetry. The types, forms, and audience of poems covered in this course will vary. Because this class focuses on writing and the creative process, we will examine both student work and the work of published poets. Previously offered as ENGL 4643. May not be used for degree credit with ENGL 5740 or ENGL 6140. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4700 Single Author or Work Pre-1800
Description: Study of a single author or work prior to 1800 along with supporting literature. Chosen at the instructor's discretion. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4710 Single Author or Work Post-1800
Description: Study of a single author or work after 1800 along with supporting literature. Chosen at the instructor's discretion. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English

ENGL 4723 Studies in Shakespeare (H)
Description: Focus on advanced topics in major plays and selected criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Human Heritage & Cultures

ENGL 4993 Senior Honors Thesis
Prerequisites: Admission to Arts and Sciences Honors Program and 3.50 cumulative GPA. For Honors students in their final semester.
Description: Thesis written on a topic of student's choice and directed by a faculty member. Final approval of thesis requires oral defense.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: English
General Education and other Course Attributes: Honors Credit

ENGL 5000 Master's Thesis
Description: MA thesis. Offered for variable credit, 1-9 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5013 Introduction to Graduate Studies
Description: Principles and procedures in scholarly research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5063 Seminar in Shakespeare
Description: Intensive study of a limited number of plays. Assignment of problems to individual students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5093 Seminar in Milton
Description: Poetry, major prose and criticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5120 Studies in Teaching English as a Second Language
Description: Selected topics in teaching English as a second language; e.g. cross-cultural communication, materials preparation, bilingual education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5123 Approaches to Language Acquisition
Description: An overview of theories of first and second language acquisition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5130 Studies in English Grammar
Description: Selected study of current topics in grammatical theory as it applies to the teaching of English. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5133 Phonetics and Phonology
Description: Exploration of fundamental aspects of the use of sound in human language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5140 Seminar in Linguistics
Description: Selective study of current topics in linguistics. May not be used for degree credit with ENGL 4080. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5143 Descriptive Linguistics
Description: An introduction to phonology, morphology, syntax and semantics. May not be used for degree credit with ENGL 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5153 Syntax
Description: The study of the principles and rules for constructing phrases and sentences in natural languages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5163 Middle English Literature
Description: Major works in Middle English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5173 Sociolinguistics
Description: Introduction to linguistic change and variation in speech communities, focusing on the methods of data collection and analysis. May not be used for degree credit with ENGL 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5183 Acoustic Phonetics
Description: An introduction to acoustic phonetics. Students will learn basic principles of the acoustics of speech sounds, develop practical skills in instrumental measurement, and learn how acoustic data can answer questions about sounds and sound patterns in language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5201 Writing Center Theory and Pedagogy
Description: The study of writing center theory and practice with the goal of application to one-to-one pedagogy.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5210 Sem or Directed Study
Description: Specialized readings or independent studies. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 5213 Composition Theory and Pedagogy
Description: The study of methods and materials for effective one-to-one and one-to-many teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5223 Professional Writing Theory and Pedagogy
Description: The study of the needs of students in technical and professional writing service courses, major approaches to teaching professional writing, and the genres often taught in professional writing service courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5243 Teaching English as a Second Language
Description: Materials and methods of second language instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5313 Internship, Teaching English as a Second Language
Description: Supervised teaching of beginning through advanced English as a second language courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5333 Second Language Assessment
Description: Introduction to the fundamental principles of second and foreign language assessment, including theories of language testing and practical aspects of developing and using language tests. Topics include test design, construction, administration and scoring, psychometric and measurement concepts, basic statistics, as well as test analysis and reporting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5340 Studies in Discourse Analysis
Description: Selected topics in the study of language in use in spoken or written contexts. May not be used for degree credit with ENGL 4033. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5353 Studies in the History of Rhetoric
Description: An exploration of selected topics and texts in the history of Western and non-Western rhetoric from the classical period to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5360 Seminar in Screen Studies
Description: The exploration of key aesthetic issues of analysis and evaluation as they pertain to film criticism. Previously offered as ENGL 5463. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5363 Critical Approaches to Screen Studies: Theory and History
Description: Designed to provide students with an overview of fundamental theoretical and historical scholarship in film and television studies.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5370 Studies in Television and New Media
Description: Exploration of aesthetic, cultural, and ideological aspects of television and new media in the United States and abroad. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 5410 Seminar in British Literature of the 16th Century
Description: Selected writers and their works, themes and literary developments of the 16th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5420 Seminar in British Literature of the 17th Century
Description: Selected writers and their works, themes and literary developments of the 17th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5440 Seminar in British Literature of the 18th Century
Description: Selected writers and their works, themes and literary developments of the 18th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5460 Seminar in British Literature of the 19th Century
Description: Selected writers and their works, themes and literary developments of the 19th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5480 Seminar in Modern Literature
Description: Selected writers and their works, themes and literary developments of modern literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5520 Internship in Professional Writing
Prerequisites: Permission of department.
Description: Supervised work-and-learning experience in writing, editing, document design, and research in the workplace. May not be used for degree credit with ENGL 4523. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5523 Genres in Professional Writing
Description: The study of the current status of genre in professional writing theories and its crucial role in professional writing practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5553 Studies in Visual Rhetoric and Design
Description: Advanced study of design and visual rhetorical theory. Practice of theory through guided composing work. May not be used for degree credit with ENGL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5560 Seminar in Professional Writing
Description: Advanced study of selected theories, themes, methods, debates, and developments in professional writing. May not be used for degree credit with ENGL 4530. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5583 Environmental Writing
Description: Consideration of the historical, political, cultural, and ethical contexts of modern environmentalism and examination of the rhetorical strategies in several types of environmental discourse. Major writing project tailored to individual research interests and career goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5593 Seminar in Style and Editing
Description: An advanced study of writing style and editing from the sentence level (including diction and grammatical arrangement) to the levels of genres of communication. Writing assignments on style for different audiences. May not be used for degree credit with ENGL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5630 Seminar in Early American Literature
Description: Selected writers and their works, themes and literary developments of the 17th and 18th centuries. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5660 Seminar in American Literature of the 19th Century
Description: Selected writers and their works, themes and literary developments of the 19th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5680 Seminar in Contemporary Literature
Description: Selected writers and their works, themes and literary developments in contemporary literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5693 Research Writing for International Graduate Students
Description: Analysis and practice in the grammar and rhetorical structures specific to writing research papers in the disciplines. Previously offered as ENGL 4893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5720 Seminar in Creative Nonfiction
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing creative nonfiction at the professional level. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5730 Seminar in Fiction Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing fiction at the professional level. May not be used for degree credit with ENGL 4630. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5740 Seminar in Poetry Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Writing poetry at the professional level. May not be used for degree credit with ENGL 4640. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5760 Craft and Forms of Prose
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Theory and practice of the prose forms. Previously offered as ENGL 5763. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5780 Craft and Forms of Poetry
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Theory and practice of the poetic forms. Previously offered as ENGL 5723. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 5990 Special Problems
Description: Topical study in various disciplines taught by faculty from the undergraduate colleges for juniors and seniors. May not be used for degree credit with ENGL 4520. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6000 Doctoral Dissertation
Description: Doctoral dissertation. Offered for variable credit, 1-9 credit hours, maximum of 30 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6130 Studies in Fiction Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in fiction. May not be used for degree credit with ENGL 4630. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6140 Studies in Poetry Writing
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in poetry. May not be used for degree credit with ENGL 4640. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6160 Studies in Creative Nonfiction
Prerequisites: Admission to MFA or PhD in Creative Writing or consent of instructor.
Description: Individual projects in creative nonfiction. May not be used for degree credit with ENGL 4620. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6210 Seminar or Directed Study
Description: Specialized readings or independent studies. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6220 Seminar in Genre
Description: The development, traditions, concerns or characteristics of genre in selected texts. Major genres and subgenres considered. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6240 Studies in Literature
Description: Advanced topics in literature and literary research. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: English

ENGL 6250 Seminar in Race and Ethnicity
Description: Study of the complex representation of race and ethnicity in literature. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6260 Studies in Literary Criticism
Description: Selected work in literary criticism, for example ancient and neo-classical, 19th century, 20th century. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6270 Seminar in Region
Description: Study of regional literature or language variation. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6280 Seminar in Gender
Description: Examination of gender as an analytical category in the study of literature, discourse and society. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6350 Topics in Rhetorical Theory
Description: Study of advanced topics in rhetorical theory and research, focusing on an important scholar in the field, a specific theme, or some combination of the two. Previously offered as ENGL 6353. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6360 Seminar in Film and Society
Description: Social conduct and value systems as they affect the role of media in culture. Previously offered as ENGL 6253. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: English

ENGL 6410 Topics in Linguistics
Prerequisites: ENGL 5143.
Description: Study of advanced topics in linguistic theory and research. May not be used for degree credit with ENGL 4080. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6420 Topics in Second Language Acquisition
Prerequisites: ENGL 5243.
Description: Study of topics in second language theory and research. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

ENGL 6500 Topics in Professional Writing
Description: In-depth study of selected topics in professional writing. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: English

Undergraduate Programs

- English, BA (p. 1301)
- English: Creative Writing, BA (p. 1304)
- English: Pre-Law, BA (p. 1307)
- English: Professional Writing, BA (p. 1310)
- English: Screen Studies, BA (p. 1313)

Graduate Programs

The Department of English offers programs leading to the Master of Arts, Master of Fine Arts and the Doctor of Philosophy. Master's students may choose among four programs: Master of Arts in English; Master of Arts in professional writing; and Master of Arts in Teaching English to Speakers of Other Languages (TESOL); and the Master of Fine Arts in Creative Writing. In consultation with their advisory committees, both master's and doctoral students have considerable flexibility in designing a degree that meets their own interests and professional goals. Students may take courses in creative writing, screen studies, professional writing, composition and rhetoric, TESOL, linguistics, literary theory, and all periods of British and American literature. The diversity of choices and the flexibility of the program prepare students to meet the demands of a changing academic marketplace.

Admission Requirements

Students seeking admission to the graduate program in English must be accepted by the Graduate College and by the departmental admission committee. In addition to the application and transcripts required by the Graduate College, students must submit to the Department of English graduate coordinator a statement of purpose; letters of recommendation; and a writing sample or the Graduate Record Examination general and subject area scores. Non-native speakers of English must submit scores on all subtests of the TOEFL iBT or IELTS. For fall admission, the early decision deadline is January 5; the final deadline is March 1. The deadline for spring admission is October 15. The deadline for international students for spring admission is August 1. Prerequisites are listed under each degree below.

Teaching Opportunities

Depending on their levels of experience and areas of emphasis, graduate teaching assistants may tutor in the Writing Center, serve as discussion leaders for selected large lecture classes, or teach their own sections of freshman composition, composition for international students, technical writing, creative writing, screen studies or literature. All teaching assistants are required to take an appropriate pedagogy course during their first year of teaching.

The Master of Arts Degree

The MA in English allows students to develop expertise in a variety of areas: literature written in English, creative writing, literary theory and criticism, screen studies, composition and rhetoric, professional writing, linguistics and TESOL. In consultation with their advisory committees, students devise an individualized curriculum that reflects their own intellectual interests and prepares them to enter a doctoral program or to teach at the college level. The degree programs in TESOL and professional writing prepare teachers for the bilingual classroom and professional writers for industry.

Prerequisites include a baccalaureate degree with an English major, or at least 24 hours in English (excluding freshman composition). Successful applicants usually have a minimum grade-point average of 3.00 on a 4.00 scale, particularly in English courses.

The MA in English consists of 30 credit hours, including six hours of thesis. In addition to these hours, students must demonstrate reading knowledge of a foreign language, pass the MA qualifying examination, and pass an oral defense of the thesis. The thesis is a work of original research prepared with the guidance of the student's advisory committee. Creative writing students may present as their theses original works in poetry or prose fiction. The programs in professional writing and TESOL have separate degree requirements described below.

Professional Writing

The MA option in professional writing consists of 30 credit hours (with thesis) or 33 credit hours (without thesis). In addition to these hours, students must fulfill the foreign language requirement and pass the MA qualifying examination in technical writing. Prerequisites are the same as those above.

TESOL

The MA option in Teaching English to Speakers of Other Languages is designed to provide students with the skills necessary to teach English to non-native speakers in a variety of situations, e.g., teaching English as a foreign language in an overseas school, college or university; teaching English as a second language to international students studying in intensive English programs in the U.S.; or teaching English to bilingual and bicultural students in American public school systems and adult education programs.

Prerequisites are the same as those above except that the major may be either in English or in a field related to second language acquisition or teaching. In addition, applicants to the TESOL program must have six hours in a foreign language with a grade of "B" or better, or must complete this requirement prior to taking the qualifying examination.

The TESOL program consists of 30 credit hours (thesis option) or 34 credit hours (non-thesis option). In addition to these hours, students must pass the MA qualifying examinations in TESOL.

TESOL is especially relevant to the public school classroom as a result of recent legislation concerning bilingual education. Teachers in English and other areas of expertise will find this program especially useful. The Oklahoma State Board of Education recently approved an "optional certification" for English as a Second Language. Already certified teachers can obtain this certification upon passing the required

standardized examination. Several of the courses offered for the TESOL option can prepare students for this examination, although the TESOL option degree does not confer certification.

Certificate in TESOL (Teaching English to Speakers of Other Languages)

The Certificate in TESOL is a program designed to provide students with the skills important for teaching English to non-native speakers in a variety of situations, including teaching English to bilingual/bicultural, English Language Learner (ELL) and Limited English Proficient (LEP) students in public school systems and adult education programs, teaching English as a Second Language to international students studying in English programs in the U.S., and teaching English as a Foreign Language in an overseas school, college or university. The program consists of 12 credit hours, with three required courses and one elective course chosen from a group of courses offered by the Department of English.

Admission to the Certificate Program in TESOL requires a Bachelor of Arts or Bachelor of Science degree from an accredited institution of higher learning, a 3.0 GPA, two letters of recommendation, and, for non-native English speakers, appropriate scores on either the TOEFL iBT or IELTS.

The Master of Fine Arts Degree

The MFA in Creative Writing allows students to focus on developing their abilities as poets and/or fiction writers, through a course of study emphasizing creative writing workshops, literature seminars, and electives in either of those areas or other areas in language and culture. In consultation with their advisory committees, students devise an individualized curriculum that reflects their own artistic and intellectual interests and prepares them to publish their artistic writing, enter a PhD program or teach at the college level.

The MFA in Creative Writing consists of 42 credit hours, including 12 hours of thesis. In addition to these hours, students must present their creative work at a public reading following the completion of their thesis.

Prerequisites include a baccalaureate degree with an English major, or at least 12 hours in English (excluding freshman composition) and writing sample of high quality. Successful applicants usually have a minimum grade-point average of 3.00 on a 4.00 scale, particularly in English courses.

The Doctor of Philosophy Degree

The Department of English grants one doctoral degree, the PhD in English. Students may, however, emphasize in their courses, their exams, and their dissertations a variety of areas: all periods of British and American literature, Native American literature and language, creative writing, literary theory and criticism, screen studies, rhetoric and professional writing, linguistics and TESOL. They may also choose an interdisciplinary emphasis. In consultation with their advisory committees, students devise an individualized curriculum that reflects their own intellectual interests and professional goals.

Prerequisites include a master's degree in English or a field related to the student's area of emphasis. Successful applicants usually have a minimum grade-point average of 3.50 on a 4.00 scale in their master's degrees. All PhD students are admitted provisionally and must take the first-year examination during their second semester of enrollment.

The PhD degree consists of 60 credit hours beyond the master's degree. Fifteen to 20 of these hours are devoted to the dissertation. In addition to these hours, students must demonstrate reading knowledge of a foreign language; pass the PhD qualifying examination in two areas; and pass an oral defense of the dissertation. The dissertation is a work of original research prepared under the direction of the dissertation committee. Creative Writing students may present as their dissertations original works in poetry or prose fiction.

Additional information and requirements may be found in the English Graduate Guidelines, which may be consulted online at: https://cas.okstate.edu/english/graduate_studies/graduate_guidelines.html. (https://cas.okstate.edu/english/graduate_studies/graduate_guidelines.html)

Certificates

- Publishing and Editing, UCRT (p. 1318)
- Teaching English to Speakers of Other Languages, UCRT (p. 1320)

Minors

- Creative Writing (CRWR), Minor (p. 1299)
- English (ENGL), Minor (p. 1300)
- Linguistics (LING), Minor (p. 1316)
- Professional Writing (PRWR), Minor (p. 1317)
- Screen Studies (SCST), Minor (p. 1319)

Faculty

Jeff Menne, PhD—Professor and Head
Regents Professors: Edward Jones, PhD; Timothy Murphy, PhD (Houston-Truax-Wentz Professor)
Professors: An Cheng, PhD; Richard Frohock, PhD; Lisa Lewis, PhD; Carol Moder, PhD; Aimee Parkison, MFA; Stacy Takacs, PhD
Associate Professors: Sarah Beth Childers, MFA; Lisa Hollenbach, PhD; Stephanie Link, PhD; Reva Sias, PhD; Nicole Tracy-Ventura, PhD; Graig Uhlin, PhD
Assistant Professors: Michael Amory, PhD; Kathleen Burns, PhD; Stephanie Choi, PhD; Shelby Johnson, PhD; Gene Kwak, MFA; Reanae McNeal, PhD; Chelsea Silva, PhD; Lindsay Wilhelm, PhD

Creative Writing (CRWR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA for minor courses: 3.0
Total Hours: 15

Code	Title	Hours
Course Requirements		
ENGL 2513	Introduction to Creative Writing (H)	3
Select 12 hours upper-division from the following:		12
ENGL 3030	Fiction Writing	
ENGL 3040	Poetry Writing	
ENGL 3060	Creative Nonfiction Writing	
ENGL 4630	Advanced Fiction Writing	
ENGL 4640	Advanced Poetry Writing	
ENGL 4620	Advanced Creative Nonfiction Writing	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

English (ENGL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clarissa Bonner, 209 MOR, 405-744-6146

Minimum Grade Point Average in Minor Coursework: 3.00 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
18 hours ENGL, at least 9 of which must be upper-division [1]		18

1

Exclusive of Freshman Composition

Choose from ENGL (p. 1281) courses.

Requirements

- A minimum of 9 hours must be taken at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
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English, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ENGL 2543	Survey of British Literature I (H)	3
ENGL 2773	Survey of American Literature I (H)	3
Select 3 additional non-English hours		3
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Select 6 hours of the following:		6
ENGL 2653	Survey of British Literature II (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH)	
33 hours ENGL (30 hours must be upper-division):		
Minimum of 12 hours at 4000-level		
ENGL 3243	Literary Theory and Criticism	3
ENGL 3343	Reading Poetry	3
3 hours Genre Studies:		3
ENGL 3333	Short Story (H)	
or ENGL 3363	Readings in Drama (H)	
or ENGL 3373	Readings in Nonfiction	
or ENGL 3383	Readings in Narrative	
or ENGL 3410	Readings in Popular Fiction	
3 hours Cultural Studies:		3
ENGL 3153	Readings in Literature by Women (DH)	
or ENGL 3170	Readings in Literature and Other Disciplines	
or ENGL 3183	Native American Literature (DH)	
or ENGL 3133	Readings in Multi-Ethnic American Literature	
or ENGL 3143	Readings in Postcolonial Literature (GH)	
or ENGL 3193	African-American Literature (DH)	
or ENGL 3813	Readings in the American Experience (DH)	
or ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
or ENGL 3503	Television and American Society (DH)	
or ENGL 4230	Literature of Diversity	
or ENGL 4263	Moving Image Aesthetics (H)	
or ENGL 4333	Studies in Native American Literature	
or ENGL 4340	Studies in Postcolonial and Multi-ethnic Literature	
or ENGL 4450	Culture and the Moving Image	
3 hours Literature before 1800:		3
ENGL 3123	Mythology (H)	
or ENGL 3163	Literatures of the Ancient World (H)	
or ENGL 3933	Shakespeare (H)	
or ENGL 4100	Studies in Medieval British Literature	
or ENGL 4110	Studies in 16th Century British Literature	
or ENGL 4120	Studies in 17th Century British Literature	
or ENGL 4130	Studies in 18th Century British Literature	
or ENGL 4200	Studies in Early American Literature	
or ENGL 4223	Introduction to Old English	

or ENGL 4600	Studies in Chaucer or Milton	
or ENGL 4700	Single Author or Work Pre-1800	
or ENGL 4723	Studies in Shakespeare (H)	
3 hours Literature after 1800:		3
ENGL 4160	Studies in 19th Century British Literature	
or ENGL 4170	Studies in 20th Century British Literature	
or ENGL 4210	Studies in 19th Century American Literature	
or ENGL 4220	Studies in 20th Century American Literature	
or ENGL 4300	Studies in Romanticism	
or ENGL 4310	Studies in Modernism	
or ENGL 4710	Single Author or Work Post-1800	
3 hours Writing:		3
ENGL 3203	Advanced Composition	
or ENGL 3223	Professional Writing Theory	
or ENGL 4530	Studies in Professional Writing	
or ENGL 4543	Style and Editing	
or ENGL 4553	Visual Rhetoric and Design	
or ENGL 3030	Writing the Short Story (F)	
or ENGL 3040	Poetry Writing: Free Verse and Formal (F)	
or ENGL 3060	Writing Flash Nonfiction (F)	
3 hours Language/Linguistics (select 3 hours from the following):		3
ENGL 3200	Special Problems in Language and Literature	
ENGL 4003	History of the English Language	
ENGL 4013	English Grammar	
ENGL 4043	Teaching English to Speakers of Other Languages	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4080	Studies in Linguistics	
ENGL 4083	Applied Linguistics	
ENGL 4093	Language in America (DS)	
English Electives:		
Select 9 hours of additional ENGL electives (6 hours must be upper-division)		9
Select 15 hours of non-ENGL upper-division courses		15
Hours Subtotal		**54**
Electives		
Select 4 hours		4
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**4**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 3.00 in all ENGL courses and a minimum grade of "C' in each ENGL course (excluding English Composition and free electives).
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
ENGL 2543 or ENGL 2653 or ENGL 2773 or ENGL 2883 or ENGL 2963	Survey of British Literature I (H) or Survey of British Literature II (H) or Survey of American Literature I (H) or Survey of American Literature II (DH) or Survey of Postcolonial and Indigenous Literatures (GH)	3
General Education courses		10
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
ENGL 2653 or ENGL 2543 or ENGL 2773 or ENGL 2883 or ENGL 2963	Survey of British Literature II (H) or Survey of British Literature I (H) or Survey of American Literature I (H) or Survey of American Literature II (DH) or Survey of Postcolonial and Indigenous Literatures (GH)	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
ENGL 3243	Literary Theory and Criticism	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
ENGL 3343	Reading Poetry	3
1813 Second Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

English: Creative Writing, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ENGL 2513	Introduction to Creative Writing (H)	3
ENGL 2883	Survey of American Literature II (DH)	3
Select 3 additional non-English hours		3
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Select 6 hours of the following:		6
ENGL 2543	Survey of British Literature I (H)	
ENGL 2653	Survey of British Literature II (H)	
ENGL 2773	Survey of American Literature I (H)	
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH)	
33 hours ENGL (30 hours must be upper-division):		
Minimum of 12 hours at 4000-level		
ENGL 3343	Reading Poetry	3
3 hours Genre Studies:		
ENGL 3333	Short Story (H)	3
or ENGL 3363	Readings in Drama (H)	
or ENGL 3373	Readings in Nonfiction	
or ENGL 3383	Readings in Narrative	
or ENGL 3410	Readings in Popular Fiction	
3 hours Cultural Studies:		
ENGL 3153	Readings in Literature by Women (DH)	3
or ENGL 3170	Readings in Literature and Other Disciplines	
or ENGL 3183	Native American Literature (DH)	
or ENGL 3133	Readings in Multi-Ethnic American Literature	
or ENGL 3143	Readings in Postcolonial Literature (GH)	
or ENGL 3193	African-American Literature (DH)	
or ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
or ENGL 3503	Television and American Society (DH)	
or ENGL 3813	Readings in the American Experience (DH)	
or ENGL 4093	Language in America (DS)	
or ENGL 4263	Moving Image Aesthetics (H)	
or ENGL 4230	Literature of Diversity	
or ENGL 4333	Studies in Native American Literature	
or ENGL 4340	Studies in Postcolonial and Multi-ethnic Literature	
or ENGL 4450	Culture and the Moving Image	
15 hours Creative Writing:		
Select 15 hours from the following (6 hours must be at the 4000 level):		15
ENGL 3030	Writing the Short Story (F) (3 hours)	
ENGL 3040	Poetry Writing: Free Verse and Formal (F) (3 hours)	
ENGL 3060	Writing Flash Nonfiction (F) (3 hours)	
ENGL 4620	Creative Nonfiction: Writing Memoir and the Personal Essay (3 hours)	

ENGL 4630	Writing the Novel (3 hours)	
ENGL 4640	Poetry Writing: Lyric and Narrative (3 hours)	
English electives:		
Select 9 hours additional ENGL Electives (6 hours must be 4000-level)		9
Select 15 non-ENGL upper-division courses		15
Hours Subtotal		**54**
Electives		
Select 4 hours		4
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**4**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 3.00 in all ENGL courses and a minimum grade of "C' in each ENGL course (excluding English Composition and free electives).
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

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- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
ENGL 2513	Introduction to Creative Writing (H)	3
General Education courses		10
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
ENGL 2883 or ENGL 2773 or ENGL 2543 or ENGL 2653 or ENGL 2963	Survey of American Literature II (DH) or Survey of American Literature I (H) or Survey of British Literature I (H) or Survey of British Literature II (H) or Survey of Postcolonial and Indigenous Literatures (GH)	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
General Education courses		12
	Hours	**15**
Spring		
ENGL 3343	Reading Poetry	3
1813 Second Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

English: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours MATH or STAT designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ENGL 2543	Survey of British Literature I (H)	3
ENGL 2773	Survey of American Literature I (H)	3
Select 3 additional non-English hours		3
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Select 3 hours of the following:		3
ENGL 2653	Survey of British Literature II (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH)	
ENGL 2233	Writing as a Profession (H)	3
33 hours ENGL (30 hours must be upper-division):		
Minimum of 12 hours at 4000-level		
ENGL 3243	Literary Theory and Criticism	3
ENGL 3343	Reading Poetry	3
3 hours Genre Studies:		
ENGL 3333	Short Story (H)	3
or ENGL 3363	Readings in Drama (H)	
or ENGL 3373	Readings in Nonfiction	
or ENGL 3383	Readings in Narrative	
or ENGL 3410	Readings in Popular Fiction	
3 hours Cultural Studies:		
ENGL 3153	Readings in Literature by Women (DH)	3
or ENGL 3170	Readings in Literature and Other Disciplines	
or ENGL 3183	Native American Literature (DH)	
or ENGL 3133	Readings in Multi-Ethnic American Literature	
or ENGL 3143	Readings in Postcolonial Literature (GH)	
or ENGL 3193	African-American Literature (DH)	
or ENGL 3813	Readings in the American Experience (DH)	
or ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
or ENGL 3503	Television and American Society (DH)	
or ENGL 4230	Literature of Diversity	
or ENGL 4263	Moving Image Aesthetics (H)	
or ENGL 4333	Studies in Native American Literature	
or ENGL 4340	Studies in Postcolonial and Multi-ethnic Literature	
or ENGL 4450	Culture and the Moving Image	
Pre-Law:		
ENGL 4093	Language in America (DS)	3
or ENGL 4033	Discourse Analysis	
ENGL 4013	English Grammar	3
ENGL 4543	Style and Editing	3
Select 3 hours of Literature at the 4000 level		3
English Electives:		
Select 9 hours additional ENGL Electives (6 hours must be upper-division)		9

Select 12 non-ENGL upper-division courses including 9 hours to be selected of the following:		12
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
GEOG 3133	Political Geography (GS)	
REL 4213	Understanding Global Islam (GH)	
ECON 3713	Introduction to Industrial Organization	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3963	State Courts and the Bar	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
PSYC 4143	Psychology and Law	
PSYC 4293	Forensic Psychology	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4313	Sociology of Law	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**51**
Electives		
Select 7 hours		7
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 3.00 in all ENGL courses and a minimum grade of "C' in each ENGL course (excluding English Composition and free electives).
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of

Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
ENGL 2543 or ENGL 2773	Survey of British Literature I (H) or Survey of American Literature I (H)	3
General Education courses		10
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
ENGL 2773 or ENGL 2543	Survey of American Literature I (H) or Survey of British Literature I (H)	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
ENGL 3243	Literary Theory and Criticism	3
1713 First Semester Foreign Language		3
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		6
	Hours	**15**
Spring		
ENGL 3343	Reading Poetry	3
1813 Second Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

English: Professional Writing, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ENGL 2243	Language, Text and Culture (GH)	3
Select 6 additional hours		6
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Core Courses		
ENGL 2233	Writing as a Profession (H)	3
ENGL 3203	Advanced Composition	3
ENGL 3223	Professional Writing Theory	3
ENGL 4523	Professional Writing Internship	3
ENGL 4530	Studies in Professional Writing	3
ENGL 4543	Style and Editing	3
ENGL 4553	Visual Rhetoric and Design	3
ENGL 4583	Writing for the Public	3
Professional Writing/Linguistics		
Select 9 hours of the following:		9
ENGL 2253	Theory and Practice of Digital Studies	
ENGL 4003	History of the English Language	
ENGL 4013	English Grammar	
ENGL 4033	Discourse Analysis	
ENGL 4043	Teaching English to Speakers of Other Languages	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4093	Language in America (DS)	
ENGL 4573	Games and Writing	
ENGL 4593	Writing Across the Disciplines	
English electives		
Select 9 hours additional ENGL Electives (6 hours must be upper-division)		9
Select 12 hours of non-ENGL upper-division courses		12
Hours Subtotal		**54**
Electives		
Select 4 hours		4
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**4**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 3.00 in all ENGL courses and a minimum grade of "C' in each ENGL course (excluding English Composition and free electives).
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

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   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

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Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
ENGL 2233	Writing as a Profession (H)	3
General Education courses		9
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
General Education courses		12
	Hours	**15**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
General Education courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
General Education courses		12
	Hours	**15**

Junior	
Fall	
2000-level Foreign Language	3
Major, College, and Elective courses	12
Hours	**15**
Spring	
Major, College, and Elective courses	15
Hours	**15**
Senior	
Fall	
Major, College, and Elective courses	15
Hours	**15**
Spring	
Major, College, and Elective courses	15
Hours	**15**
Total Hours	**120**

English: Screen Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
ENGL 2453	Introduction to Film and Television (H)	3
ENGL 2543	Survey of British Literature I (H)	3
or ENGL 2653	Survey of British Literature II (H)	
Select 3 additional non-ENGL hours		3
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Core Courses		
Select one of the following:		3
ENGL 2773	Survey of American Literature I (H)	
ENGL 2883	Survey of American Literature II (DH)	
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH)	
ENGL 3263	Film & TV Criticism	3
ENGL 3453	History of American Film (H)	3
ENGL 3463	History of International Film (GH)	3
ENGL 4450	Culture and the Moving Image	3
ENGL 3433	Introduction to Television Studies (H)	3
Select one of the following:		3
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 4263	Moving Image Aesthetics (H)	
English electives		
Select 18 hours of ENGL electives (15 hours must be upper-division) including 6 hours from:		18
ENGL 4100	Studies in Medieval British Literature	
ENGL 4110	Studies in 16th Century British Literature	
ENGL 4120	Studies in 17th Century British Literature	
ENGL 4130	Studies in 18th Century British Literature	
ENGL 4160	Studies in 19th Century British Literature	
ENGL 4170	Studies in 20th Century British Literature	
ENGL 4200	Studies in Early American Literature	
ENGL 4210	Studies in 19th Century American Literature	
ENGL 4220	Studies in 20th Century American Literature	
ENGL 4223	Introduction to Old English	
ENGL 4300	Studies in Romanticism	
ENGL 4310	Studies in Modernism	
ENGL 4600	Studies in Chaucer or Milton	
ENGL 4700	Single Author or Work Pre-1800	
ENGL 4723	Studies in Shakespeare (H)	
Related Courses		
Select 15 hours of non-ENGL upper-division courses		15
Hours Subtotal		**54**
Electives		
Select 4 hours		4

May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
Hours Subtotal	
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 3.00 in all ENGL courses and a minimum grade of "C' in each ENGL course (excluding English Composition and free electives).
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
ENGL 2453	Introduction to Film and Television (H)	3
General Education Courses		10
	Hours	**16**

Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
ENGL 2543 or ENGL 2653	Survey of British Literature I (H) or Survey of British Literature II (H)	3
General Education Courses		8
	Hours	**14**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
General Education Courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Linguistics (LING), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clarissa Bonner, 209 Morrill Hall, 405-744-6146

Minimum Overall Grade Point Average: 2.50
Total Hours: 15

Code	Title	Hours
Minor Requirements		
ENGL 3063	Introduction to Linguistics: Exploring Human Language	3
Select 12 hours of the following:		12
ENGL 2243	Language, Text and Culture (HI)	
ENGL 2443	Languages of the World (I)	
ENGL 4003	History of the English Language	
ENGL 4013	English Grammar	
ENGL 4033	Discourse Analysis	
ENGL 4043	Teaching English to Speakers of Other Languages	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4080	Studies in Linguistics	
ENGL 4083	Applied Linguistics	
ENGL 4093	Language in America (DS)	
ENGL 4143	Language and Technology	
PSYC 4343	Language Development (S)	
PHIL 3003	Symbolic Logic (A)	
PHIL 4543	Philosophy of Language	
Total Hours		**15**

Other Requirements

- 9 hours must be upper-division.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Professional Writing (PRWR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA: 3.0 GPA
Total Hours: 15

Code	Title	Hours
Course Requirements		
Select three hours from the following lower-division:		3
ENGL 2233	Writing as a Profession (H)	
ENGL 2253	Theory and Practice of Digital Studies	
Select 12 hours from the following upper-division:		12
ENGL 3223	Professional Writing Theory	
ENGL 4553	Visual Rhetoric and Design	
ENGL 4543	Style and Editing	
ENGL 4583	Writing for the Public	
ENGL 4530	Studies in Professional Writing	
ENGL 4573	Games and Writing	
ENGL 4593	Writing Across the Disciplines	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Publishing and Editing, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
This is an 18 hour certificate.		
Course Requirements		
To complete this certificate, students are required to take one of the following courses:		3
ENGL 4013	English Grammar	
ENGL 4543	Style and Editing	
Select 15 additional hours from any combination of the following:		15
ENGL 2513	Introduction to Creative Writing (H)	
ENGL 3030	Writing the Short Story (F)	
ENGL 3040	Poetry Writing: Free Verse and Formal (F)	
ENGL 3060	Writing Flash Nonfiction (F)	
ENGL 3323	Technical Writing	
ENGL 4523	Professional Writing Internship	
ENGL 4620	Creative Nonfiction: Writing Memoir and the Personal Essay	
ENGL 4630	Writing the Novel	
ENGL 4640	Poetry Writing: Lyric and Narrative	
ENGL 2890	Honors Experience in English	
Total Hours		**18**

For additional information on this program, please contact Aimee Parkison, English Department, 205 Morrill Hall, 405-744-9474.

Screen Studies (SCST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum GPA for Minor Courses: 3.0 GPA
Total Hours: 15

Code	Title	Hours
Course Requirements		
Lower Division		
ENGL 2453	Introduction to Film and Television (H)	3
Upper Division (Non-Repeating)		
Select 12 hours from the following:		12
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
or ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
AMST 3503	Television and American Society (DH)	
ENGL 3263	Film & TV Criticism	
ENGL 3353	Film and Literature	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3463	History of International Film (HI)	
ENGL 4350	Contemporary International Cinema	
ENGL 4450	Culture and the Moving Image	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Teaching English to Speakers of Other Languages, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
ENGL 4013	English Grammar	3
ENGL 4043	Teaching English to Speakers of Other Languages	3
ENGL 4180	Internship in TESL	4
Select six credit hours from:		6
ENGL 2243	Language, Text and Culture (GH)	
ENGL 2443	Languages of the World (GS)	
ENGL 4003	History of the English Language	
ENGL 4033	Discourse Analysis	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4080	Studies in Linguistics	
ENGL 4083	Applied Linguistics	
ENGL 4093	Language in America (DS)	
ENGL 4143	Language and Technology	
ENGL 4520	Problems in English	
CIED 4133	Introduction to K-12 English Language Learners	
CIED 4813	Second Language Acquisition Research and Pedagogy	
Total Hours		**16**

For additional information on this program, please contact Dr. Carol Moder, English Department, 205 Morrill Hall, 405-744-9471, or Dr. Steph Link, English Department, 109D Morrill Hall, 405-744-6232.

Gender, Women's and Sexuality Studies

Gender, Women's, and Sexuality Studies (GWST) is an interdisciplinary program offering diverse undergraduate and graduate coursework, a minor for undergraduates, support for faculty research and curricular development, and opportunities to collaborate with community and campus partners who are intrigued by how gender shapes the world. Faculty and courses from twelve departments across the university contribute to the program.

As part of our academic and advocacy mission, we offer a minor through the College of Arts and Sciences that is open to all undergraduates regardless of major. It consists of 15 credit hours. In addition to two required courses in Gender, Women's and Sexuality Studies (GWST 2113 Transnational Women's Studies (S) or GWST 2123 Introduction to Gender Studies (DH); and either GWST 4113 Feminist Theories or GWST 4503 Theorizing Men and Masculinities, students choose from other GWST courses (6 hours), and from classes that complement gender, women's and women's studies (3 hours).

Students in Gender, Women's and Sexuality Studies pursue research in the history of women, in theories of gender, in feminism, in the cultural construction of masculinity, and in the cross-cultural intersections of race, class, nationality and sexuality. Work in Gender, Women's and Sexuality Studies can lead to and enrich a wide variety of careers, including nonprofit development, graduate training in humanities and the social sciences, education, curatorial administration, human resources, creative writing and reportage, international relations, publishing, public relations, and electoral politics and advocacy. Let us know how we can assist you with planning courses that work for your future!

Courses

GWST 2113 Transnational Women's Studies (S)
Description: Introduction to research on women and gender in transnational contexts. Interpersonal relationships, socioeconomic status, power and authority as women experience them, myths and realities among women of different races, classes, ethnicities, sexual orientation, nationalities, ages, and physical ability. Previously offered as WMST 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Society & Human Behavior

GWST 2123 Introduction to Gender Studies (DH)
Description: Introduction to critical thinking about the construction of gender and the intersections of gender with race, ethnicity, class, and sexuality. Basic methods of studying gender from an interdisciplinary humanities perspective. Previously offered as WMST 2123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

GWST 3443 Gender Relations in Chinese History (H)
Description: This course examines men's and women's social, cultural, religious, political, economic, family, and sexual experiences in Chinese hist; particularly women's own voices and efforts in pursuing their own goals and aspirations. Same course as HIST 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 3450 Topics in Gender Studies
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Suggested topics include: women and health, women and science, women and religion. Previously offered as WMST 3450. Offered for fixed credit, 3 credit hours, maximum of 12 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 3513 Theorizing Sexualities (D)
Prerequisites: GWST 2113 or GWST 2123.
Description: Examination of poststructuralist and/or feminist theories of sexualities in contexts of film, literature, history, or popular culture. Likely theorists include Foucault, Butler, D'Emilio, Lorde, Kristeva, Anzaldua, Chow, and/or Chauncey. Previously offered as WMST 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion, and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as REL 3523 and GEOG 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 3553 LGBTQ Lives in the United States (D)
Description: Introduction to the Study of lesbian, gay, bisexual, transgender, intersex, and queer+ (LGBTQ) experiences, representations, cultural practices, and resistance to oppression in the contemporary United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3613 Race and Reproduction in the U.S. (D)
Prerequisites: GWST 2113 or GWST 2123 recommended.
Description: An interdisciplinary examination of the inextricable relationship between race relations and reproductive politics. Issues explored include malthusianism, sterilization abuse, criminalizing pregnancy, natalism and nationalism, eugenics, the role of women of color in campaigns for reproductive justice, and representations of motherhood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3713 Gender and Representation (D)
Description: Cultural analysis of gender representation and gender relations. Using cultural texts and practices in several areas such as children's culture, sport, music, film and TV. Previously offered as WMST 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 3813 Mothering
Description: This course offers an interdisciplinary study of motherhood and mothering, exploring its social and cultural contours, diverse representations, and varied practices from GWST, feminist, intersectional, and LGBTQ perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 3913 Gender, Violence & Justice (D)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 4013 Approaches to Feminist Research
Prerequisites: GWST 2113 or GWST 2123 or consent of instructor.
Description: Examines the ethics and epistemologies of methodologies and theoretical frameworks most conducive to feminist analysis. This course prepares students to conceptualize their own research projects. Previously offered as WMST 4013. May not be used for degree credit with GWST 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4113 Feminist Theories
Prerequisites: GWST 2113 or GWST 2123 or consent of instructor.
Description: Examines the different types of feminist theories and the role theory plays in the production of knowledge. A variety of feminist theories will be considered from an interdisciplinary perspective. Previously offered as WMST 4113. May not be used for degree credit with GWST 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4333 History of Sexuality in the United States (D)
Description: This course examines the history of sexuality in the U.S. from the 16th century to the present. It considers how social, cultural, political, and economic conditions have affected changing meanings of sexuality over time. It takes an intersectional approach, paying particular attention to how issues of race, class, and gender have shaped attitudes towards and experiences of sexuality in the American past. Same course as HIST 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity

GWST 4413 Sex & Gender in the Medieval World
Description: Historical attitudes toward sex and gender history in medieval Europe. Interdisciplinary approach also including cultural, social, economic and religious history. Same course as HIST 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4503 Theorizing Men and Masculinities
Prerequisites: GWST 4113 or permission of instructor.
Description: Examines the roles of men in various cultural contexts, the historical development of manhood as an ideal, and theories of masculinities. May not be used for degree credit with GWST 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4613 Women in the Bible (H)
Description: This course will examine the stories about and portrayals of women in the Bible. We will explore what the biblical authors have to say about women within their cultural contexts and how these portrayals have shaped how women are seen in Western society. By analyzing the portrayals of women in antiquity, the course will also provide conceptual tools to help students examine how gender has been understood in Western society. Same course as REL 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

GWST 4890 Internship in Gender and Women's Studies
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a GWST related professional work setting. Students must have an approved internship that will provide gender and women's studies experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

GWST 4950 Special Topics in Global Feminism
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Selected topics in the problems and issues of global women's and feminist activism. Highlights the continuing fight to secure gender equality, especially in developing nations. Exploration of the women's movement links with other human rights struggles across the globe. Previously offered as WMST 4950. May not be used for degree credit with GWST 5950. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 4990 Directed Readings in Gender Studies
Prerequisites: Permission of instructor.
Description: Examines gender studies issues and topics. Previously offered as WMST 4990. May not be used for degree credit with GWST 5990. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5013 Approaches to Feminist Research
Description: Examines the epistemologies, theoretical frameworks, and ethics of methodologies conducive to feminist analysis. This course prepares students to conceptualize and undertake their own research projects. May not be used for degree credit with GWST 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5103 Gender and Sexuality
Description: This course offers an interdisciplinary survey of major works and key concepts in the field of Gender and Women's Studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5113 Feminist Theory
Description: Examines diverse feminist theories and their role in the production of knowledge. A variety of contemporary feminist theories will be considered from an interdisciplinary perspective. May not be used for degree credit with GWST 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5300 Seminar in Gender and Women's Studies
Description: This course will offer a topics-based graduate colloquium in the interdisciplinary and international field of Gender and Women's Studies. Potential topics include Gender and Modern War, Feminist Aesthetics, Sexuality and Space, Cold War Masculinities, and Gender and International Relations. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5503 Theorizing Men and Masculinities
Prerequisites: GWST 4113 or permission of instructor.
Description: Examines the roles of men in various cultural contexts, the historical development of manhood as an ideal, and theories of masculinities. May not be used for degree credit with GWST 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5913 Gender, Violence and Justice
Description: This course provides a transnational, intersectional examination of gender-based violence and varied forms of justice. Issues explored might include violence against women, domestic violence, human trafficking, sexual harassment, policing, incarceration, as well as anti-violence activism and alternatives to criminal legal system. May not be used for degree credit with GWST 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5950 Special Topics in Global Feminism
Prerequisites: GWST 2113 or GWST 2123 or permission of instructor.
Description: Selected topics in the problems and issues of global women's and feminist activism. Highlights the continuing fight to secure gender equality, especially in developing nations. Exploration of the women's movement links with other human rights struggles across the globe. May not be used for degree credit with GWST 4950. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

GWST 5990 Directed Readings in Gender and Women's Studies
Prerequisites: Permission of instructor.
Description: Specialized readings or independent study in GWST. May not be used for degree credit with GWST 4990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

Minors

- Gender, Women's and Sexuality Studies (GWS), Minor (p. 1325)

Faculty

Lucy E. Bailey, Ph.D.—Director and Professor
For program information, please contact lucy.bailey@okstate.edu
Assistant Professor of Gender, Women's and Sexuality Studies: Dr. Corinne Schwarz
Assistant Professor of Gender, Women's & Sexuality Studies and Africana Studies: Dr. Reanae McNeal
Professor of Art History, Core faculty in Gender, Women's and Sexuality Studies: Dr. Jennifer Borland
Professor of American Studies and History, Core faculty in Gender, Women's and Sexuality Studies: Dr. John Kinder
Professor of English, Core faculty in Gender, Women's and Sexuality Studies: Dr. Carol Moder
Professor of American Studies and English, Core faculty in Gender, Women's and Sexuality Studies: Dr. Stacy Takacs

Gender, Women's and Sexuality Studies (GWS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Lucy Bailey, Faculty contact, 215 WLLD, 405-744-9194, lucy.bailey@okstate.edu
Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 15

Code	Title	Hours
Minor Requirements		
GWST 2113	Transnational Women's Studies (S)	3
or GWST 2123	Introduction to Gender Studies (DH)	
GWST 4113	Feminist Theories	3
or GWST 4503	Theorizing Men and Masculinities	
Select 6 hours from classes focusing on gender and women:		6
GWST 3450	Topics in Gender Studies	
GWST 3513	Theorizing Sexualities (D)	
GWST 3553	LGBTQ Lives in the United States (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
GWST 3713	Gender and Representation (D)	
GWST 3813	Mothering	
GWST 3913	Gender, Violence & Justice (D)	
GWST 4013	Approaches to Feminist Research	
GWST 4333	History of Sexuality in the United States (D)	
or HIST 4333	History of Sexuality in the United States (D)	
GWST 4413	Sex & Gender in the Medieval World	
GWST 4503	Theorizing Men and Masculinities	
GWST 4950	Special Topics in Global Feminism	
GWST 4890	Internship in Gender and Women's Studies	
GWST 4990	Directed Readings in Gender Studies	
AFAM 3950	Special Topics in Africana Studies	
AMST 4553	Gender in America (DH)	
ART 4693	Gender And Visual Culture	
ENGL 3153	Readings in Literature by Women (DH)	
HIST 3443	Gender Relations in Chinese History (H)	
HIST 4413	Sex and Gender in the Medieval World (H)	
HIST 4553	Gender in America (DH)	
HONR 3053	Biology, Race, and Gender: Honors (DH)	
POLS 4693	Gender and Politics	
PSYC 4123	Psychology of Women (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4643	Sociology of Gender (S)	
SOC 4653	Gender and the Middle East (IS)	
and other suitable feminist and gender topics courses by petition.		
3 hours from classes in the list above or below that complement gender and women's studies:		3
AMST 3423	American Popular Culture (H)	
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
or ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
AMST 3653	The Body in American Culture (DH)	
AMST 3823	U.S. as Business Culture (DH)	
AMST 3950	Special Topics in American Studies (DH)	
ART 4613	Art Since 1960	
BIOL 3233	Human Reproduction	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
EEE 3033	Women and Minority Entrepreneurship	
HIST 3683	United States History Since 1945 (DH)	
HIST 3913	History of Medicine (H)	
HONR 2073	The Story of Lizzie Borden: Axe Murder in American Culture (DH)	
MGMT 4213	Managing Diversity in the Workplace (D)	
PHIL 3813	American Philosophy (H)	
PHIL 3833	Biomedical Ethics (H)	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
PSYC 2593	Psychology of Human Sexuality	
SOC 4153	Sociology of Health and Illness	
SOC 4723	Sociology of Families (S)	
TH 3633	Diverse American Drama (DH)	
and other suitable complementary topics courses focused on gender, sexuality, feminism, or intersectionality by petition.		
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Geography

The Department of Geography offers degrees in Global Studies, Geospatial Information Science as well as Geography. If you are seeking a flexible major, want to help solve social and environmental challenges, enjoy traveling, like maps, or are curious about different ways of life, our degree options might be a great fit for you.

Our students share interests in global perspectives and environmental issues, enjoy exploring new places, and want to learn more about making and using maps to inform public policy, for example. Majoring in Geography, Global Studies, or Geospatial Information Science can open doors to a wide variety of career options. Undergraduates also have the opportunity to conduct in research with a faculty mentor, gain work experience through an internship, or participate in a study abroad.

Geography brings together the study of people, the environment, and the interactions between them in order to understand and improve our world.

- Human geographers tend to focus on local, national, and global flows of ideas and practices. They may emphasize the study of migration, voting patterns, travel behavior within cities, or how the use of social media varies from one region to another, for example.
- Physical geographers seek to understand environmental processes that affect air and water quality, biodiversity, or contribute to natural disasters.
- Human-environment geographers work at the intersection of social and natural dynamics to study the climate impacts of human activities, to understand vulnerability to drought or other natural hazards, or to design and plan sustainable cities, for example.
- Through the use of Global Positioning System (GPS) data, drone- and satellite-based imagery, and geographic information systems (GIS), geographers map, monitor, and analyze environmental change in order to understand how our world is changing, where, and who is affected.
- Geography spans the sciences, social sciences, and humanities. Much of the work that geographers do is inherently interdisciplinary in scope.

Many careers are available to the geography major. Recent graduates have been employed in the public and private sector in jobs involving urban and regional planning, GIS mapping and analysis for oil and gas projects, community development, locational analysis for business and industry, resource planning and management, the Foreign Service, cartography, and teaching. Geography provides an excellent foundation for a career in business, industry, or government.

The department specializes in three areas:

- nature-society dynamics, including resource management,
- cultural and historical geography, and
- geographic information science, including unmanned aerial systems.

The department also manages Cartography Services, the Center for Applications of Remote Sensing, three GIS labs, a palynology/paleoecology laboratory, field mapping equipment such as Global Positioning System receivers, and an interactive weather analysis system with satellite data feed.

The Department of Geography offers flexible degree options and certificates, including the following:

- BA/BS in Geography (with Business Essentials, Pre-Law, and Pre-Ministry options)
- BA in Global Studies (with Business Essentials, Pre-Law, and Pre-Ministry options)
- BS in Geospatial Information Science
- Certificate in GIS (undergraduate and graduate)
- Certificate in Environmental Studies (undergraduate)

Undergraduates also have the opportunity to participate in an accelerated master's program ("4+1" degree) in which they can earn the BA in Global Studies in four years and the MS in Global Studies in their fifth year. An advanced program leading to the MS and PhD degrees is also available. The department also sponsors students in the interdisciplinary MS and PhD programs in environmental science.

Global Studies

Global Studies combines the study of world regions with cultural, environmental, economic, political and other facets of globalization and global change. Global studies offers practical and vital knowledge about the world, how it works and why it is changing. Faculty in Geography who teach in the Global Studies program have extensive experience with research, teaching, and study abroad in the Americas, Europe, Africa, Australia, Central Asia, and the Middle East.

A Global Studies degree prepares students for both international and domestic careers with the federal government and a wide variety of NGOs, charitable organizations, and other agencies involved in different aspects of regional and global development. The ongoing growth and global expansion of Christian missions, many of which originate and are coordinated by Oklahoma-based churches and charities, will benefit from students with a degree in Global Studies. It is also an ideal second major for many other degree programs both within and beyond A&S (e.g. Foreign Languages, Political Science, International Business, International Agriculture). Students with a Global Studies degree can serve the needs of Oklahoma, the nation and the world by joining a workforce of globally minded people who can easily function in a world that is increasingly interconnected.

Geospatial Information Science

Driven by technological innovations and an explosion in the availability of spatial information, geospatial technologies including geographic information systems (GIS), the Global Positioning System (GPS) and remote sensing have introduced revolutionary ways to utilize spatial information. The BS degree in geospatial information science (GISci) provides students with a theoretical and applied foundation in the rapidly growing field of GISci. The program is especially relevant to students interested in cultural and natural resource management, agriculture, planning and the environment.

The importance of GISci is underscored by a growing number of jobs emphasizing or entirely focused on the storage, analysis and visualization of geospatial data. A student who earns the BS in Geospatial Information Science at OSU will be well-versed in general GISci knowledge and will have competency utilizing GISci hardware and software for the planning, development and maintenance of spatial and nonspatial databases. Most important, students who complete the BS will have higher order skills involving the analysis of geospatial data and will be capable of communicating findings with larger audiences. Requirements for the proposed BS have been designed to parallel skills needed by GISci professionals. Upon earning the BS, a student will be proficient in spatial data capture, data representation,

spatial data analysis, GISci theory, and GISci project development and implementation. Students can expect to find occupations in a variety of fields in private industry, government, education and agriculture.

Since the early 1990s the OSU Geography Department has distinguished itself in GISci instruction and research. In 1996 the Department launched the state's first Certificate in Geographic Information Systems and in subsequent years has expanded GISci course offerings to address growing student interest and demand. The Department is well-known nationally and internationally for research involving the integration of GISci within farm-level decision-making, for scholarship involving human patterns and processes tied to cultural and historical landscapes and for research involving communications and transportation systems. Faculty in the Department have been highly successful in obtaining extramural support for GISci research and extension activities from organizations ranging from the National Science Foundation to the National Park Service, U.S. Department of State, Oklahoma Historical Society, and Oklahoma Department of Transportation. Faculty in the Department have also worked to improve STEM education in Oklahoma schools through projects such as a $1.2 million grant from the National Science Foundation that introduced GISci activities in 6th through 12th grade science classrooms. The Department's international outreach efforts tied to geospatial technologies include a training partnership involving faculty and students in Vietnam and a multi-year project aimed at building Iraq's GISci infrastructure.

Certificate in Environmental Studies (EVST)

Environmental Studies is an interdisciplinary field that emphasizes human-environment interactions and spans the humanities, social sciences, and sciences. The certificate is open to all undergraduate majors and is designed to fit within most four-year degree plans without the need for additional credit hours. The certificate is awarded upon completion of the bachelor's degree and requires the completion of 17 credit hours. Lower-division requirements include ENVR 1113 and either GEOG/GEOL 1022 (N) or GEOG/GLST 2002 (N). Upper-division requirements include a single core course, GEOG 4233 Human Dimensions of Global Environmental Change, plus three others (nine credit hours) from a wide variety of courses.

Completion of the certificate indicates that a student has developed a knowledge base about environmental processes combined with the study of human cultural interactions with the natural world from the perspectives of history, political science, art, psychology, philosophy, literature, economics, and other disciplines. The certificate is ideal for students whose interests span the humanities, social sciences, and natural sciences. The undergraduate Certificate in Environmental Studies recognizes students who complete their degrees with a notable share of courses emphasizing the study of the natural environment and how societies interact with nature.

Certificate in Geographic Information Systems (GIS)

The Certificate in GIS provides students with broad exposure to principles and applications of GIS. Requirements for the certificate are designed to parallel skills needed by GIS professionals. Student earning the certificate are proficient in general GIS theory and have knowledge and practical exposure to the following:

- hardware and software used in GIS and spatial data collection,
- design and management of spatial and non-spatial databases,
- spatial analysis and/or GIS programming, and
- representation of data in both mapped and tabular form.

The certificate program is offered at both the undergraduate (GIS, CRT) and graduate (GIS, GCRT) levels. Admission into the undergraduate certificate program is open to any undergraduate or special (non-degree seeking) students at OSU, while admission into the graduate certificate program is open to any graduate students. To receive a certificate in GIS, a student must complete a set of coursework in GIS and related topics and hold a bachelor's or more advanced degree from OSU or an accredited college. Students may work toward a certificate while completing their bachelor's or graduate degrees.

For more information about the Department of Geography, its programs or certificates, please visit https://geog.okstate.edu/ or contact us at 405-744-6250.

Courses

GEOG 1022 Climate Change and Humanity (N)
Description: Focus on the development of scientific inquiry and critical thinking skills needed to evaluate complex relationships among climate, energy production, and the environment. Students will explore causes and consequences of climate change and consider climate change science from alternative perspectives. Same course as GEOL 1022.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 1113 Introduction to Cultural Geography (GS)
Description: Surveys the principles of human geography by exploring the world's diverse patterns of culture and associated cultural landscapes. Examination of global patterns of population; language; religion; ethnic, national, and sexual identities; the development of regions, cities, and industry; food production and environmental change, especially as they are affected by globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 1114 Introduction to Physical Geography (LN)
Description: Study of the atmosphere, hydrosphere, lithosphere, and biosphere-the major realms that interact to create Earth's environmental patterns. Human-environmental interactions are emphasized as the environment affecting people and people affecting the environment. The lab rounds out knowledge in course themes through hands on study of maps, GPS, and environmental processes.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: Geography Field Trip fee of $50 applies.

GEOG 1713 Regions & Nations in Global Context (GS)
Description: A regional approach to the study of human societies and the makeup of nations around the world, with an emphasis on contemporary issues such as climate change, sustainability and other environmental impacts; population and immigration; cultural, religion and language; and economic characteristics such as wealth disparities, poverty and education. This course covers many distinct world regions in each region such as Europe, Latin America, the Middle East and Southeast Asia. Previously offered as GEOG 2253. Same course as GLST 1713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 2002 Global Sustainability (N)
Description: This course examines questions of sustainability and sustainable development in a global context from environmental, social, and economic perspectives. Emphasis is placed on how different dimensions of sustainability interact, and how those interactions are shaped by regional context in a globalized world. Through discussion of policy and current environmental issues around the world, students will learn to analyze relationships and tradeoffs between humans and their environment. Same course as GLST 2002.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 2103 Global Perspectives (GS)
Description: Introduces students to the cultural, economic, and political aspects of globalization and global issues. Emphasizes the relationship between tradition and change, the interconnectedness of people, places, and institutions, aspects of social and economic development, and the evolving role of technology in creating and sustaining a globalized world. Also introduces students to possible career options. Same course as GLST 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 2344 Digital Tools for Environmental Problem-Solving (LN)
Description: This course provides an introduction to some cool tools for environmental problem-solving. These tools mainly include the Global Positioning System (GPS), geographic information systems (GIS), and remote sensing, also referred to as geospatial technologies. With a combination of lectures and hands-on exercises, students will become familiar with the fundamentals of these cool tools, and their applications in the environment such as in public health, climate change, water resource, food security, disaster assessment and recovery, deforestation.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOG 2890 Honors Experience in Geography
Prerequisites: Honors Program participation and concurrent enrollment in a designated GEOG course.
Description: A supplemental Honors experience in Geography to partner concurrently with designated Geography courses (GEOG 1113, 1114, and 1713). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Honors Credit

GEOG 3023 Climatology (N)
Description: A non-quantitative introduction to characteristics and distributions of long-term patterns in the atmosphere. Patterns and associations of temperature, precipitation, pressure and winds. Physical processes, regional climates of Earth, climate change, and applications of climate to agriculture, industry, and other human activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 3033 Meteorology (N)
Description: A non-quantitative introduction to weather. Physical elements that cause and influence the atmosphere over the short term. Energy, moisture, and storms. Interpretation of weather maps and satellite imagery.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 3053 Introduction to Central Asia Studies
Description: A comprehensive view of newly-emerged Central Asian states, examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as reflected in their thoughts, religion, literature, and architecture in the past, and the strategic importance of their natural wealth for the present and future. Same course as GLST 3053, HIST 3053, POLS 3053 & RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3063 Economic Meteorology
Description: Economic impact of weather ranging from consumer spending to agriculture and energy commodity markets. Specific weather events, and their associated economic impact, weather and climate forecasting and methods for eliminating weather risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3093 Historical Geography of North America to 1800 (H)
Description: This course is an examination of the cultural geography of colonial North America from the earliest European contact with Native Americans to the end of the 18th Century. The course examines regional patterns of indigenous American Indian settlement, European exploration, trade, colonization. Immigration, impacts upon indigenous societies, and the development of preindustrial economic regions. Students will gain an appreciation of the interactions of various indigenous, European, and African peoples in different environments in the colonial era. Same course as HIST 3093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3113 Global Water Resources: Sustainability & Justice (GS)
Description: Water resources are key to the success of societies in all of their various forms. This course introduces students to fundamental concepts of water resources, including the natural processes of the hydrological cycle, management of water resources, and societal threats to sustaining water quantity and quality. Students in this course will develop an awareness and appreciation of the multiple perspectives about water as a precious resource, commodity, and point of justice. Same course as GLST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3123 Urban Geography (S)
Description: This course seeks to explain the evolving pattern of North American cities and their antecedents in terms of the distribution and movement of people and resources as well as the effects of changes in transportation and communication technology. In addition, a careful analysis of the development and internal spatial structure of North American cities will be carried out. Much class time will be spent on discussion of contemporary urban problems such as segregation, unequal investment, and control of urban public space as well as attempts at their solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3133 Political Geography (GS)
Description: Political structures, relationships and geopolitical implications of location, boundaries, culture and the natural environment of nations and states. Global patterns of political behavior, political history, international law and geostrategy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3153 Conservation of Natural Resources (S)
Description: A focus on the stewardship and sustainable management of our natural resources. Problems and corrective methods in the conservation of land, water, forests, wildlife, and mineral resources. Key themes include the relationships between human and environmental systems, degraded landscape restoration, environmental policy and compliance, and economic implications of natural resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3163 Economic Geography (S)
Description: Processes significant to the spatial structure of economic systems. Production, consumption and exchange activities examined in regard to location, distribution, aerial differentiation and spatial interaction patterns. Attention given to processes of change as well as to steady states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3173 Cultural Geography (S)
Description: Geographic impact of human cultures. Emphasis on the concepts of social space, density, crowding, territoriality, diffusion, migration, environmental perception and cultural landscape.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3183 Transportation Geography
Description: Basic concepts and theories of transportation geography, selected transportation models and analysis methods related to spatial interactions, network analysis, allocation, and urban transportation planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3203 Contemporary Issues in Geotechnology
Description: A look at critical issues currently facing the geography and geotech communities. Topics will include data sources, privacy, surveillance, internet censorship, big data, and the spaces and politics of code to discuss the impacts of technology on society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3213 Digital Worlds: Culture, Identity, and Community (H)
Description: An introduction to the geographies of communication and media in the context of recent technological changes. Students will learn how online and offline spaces are created and interact as a result of social media and telecommunications technology. Topics include: geographies of the internet, the digital divide, media culture, video game spaces, and online politics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3243 Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)
Description: Geographical perspective on the evolution of U.S. federal Indian law and policy through an examination of case and statute law. Examination of tribal sovereignty and jurisdiction over lands in aboriginal title and federal trust, and how land defines indigenous identities and affects tribal-state relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GEOG 3333 Spatial Analysis (Q)
Prerequisites: STAT 2013 or STAT 2023 or STAT 2053 or STAT 4013 or STAT 4053.
Description: An introductory course in the application of basic statistical methods to spatial problems, including descriptive statistics, probability distributions, point and interval estimation, hypothesis testing, correlation, and simple linear regression. Emphasizes the challenges of working with spatial datasets and choosing appropriate methods of analysis, as well as explicitly spatial methods such as spatial sampling, point and area pattern analysis, and spatial autocorrelation. Provides a foundation for further study in geospatial technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Analytical & Quant Thought

GEOG 3373 Health and Maps
Description: How does where people live affect their health? How does the infectious disease spread across places? Health geography provides unique and powerful insights for understanding connections between wellness and place. This course will introduce basic concepts and tools of maps, Geographic Information Systems (GIS), and map analysis. It will also demonstrate their application in the context of public health, including infectious disease, environmental health, urban health, health resource accessibility, and more.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion, and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as GWST 3523 and REL 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 3703 Geography Of Oklahoma (S)
Description: Introduction to geography's regional approach through an examination of the cultural and environmental patterns of the State of Oklahoma. Systematic examination of physical regions, natural vegetation, wildlife and resource bases. Exploration of diverse Native American communities as well as European ethnic and African American settlement. Focus on evolving agricultural regions and the mineral industries and population dynamics in both rural and urban areas. Emphasis on cultural landscapes and representation of Oklahoma in popular culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 3713 Exploring North America and Diversity (DS)
Description: This course presents a regional analysis of the United States and Canada, including physical and cultural landscapes, population and migration trends, regional development, natural resources, and U.S.-Canada relations as well as global relations. In addition, it emphasizes diversity in both countries, with special attention to those geographies of under-represented and minority groups in the U.S. May not be used for degree credit with GLST 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GEOG 3723 Europe (GS)
Description: This course examines the cultural, economic, and natural diversity of Europe in relation to globalization, climate change, and popular culture. Basic geographic concepts such as migration, region, and culture will be linked to European current events. Students will learn to properly utilize online sources to understand current European issues and their relationship to other countries and regions around the world. May not be used for degree credit with GLST 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3733 Russia and Its Neighbors (GS)
Description: A regional survey course of Eurasia extending from Central Europe to Western Siberia. Central and Southwest Asia will not be considered in this course. Thematic contemporary issues in the region will be covered, including topics on culture, politics, social issues, economic development, and others. May not be used for degree credit with GLST 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3743 Latin America (GS)
Description: A regional analysis of physical, cultural and economic features of historic and contemporary Latin America. Key themes include people and environment, development and change, government and conflict, and globalization and social change. Same course as GLST 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3753 Asia (GS)
Description: A regional survey course of Asia from Pakistan in the west to the Asian littoral in the east, including Japan, Taiwan, and the Philippines. Central and Southwest Asia will not be considered in this course. Regionally, Asia will be approached through examination of two great cultural focal points: India and China. Thematic contemporary issues in Asia will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GLST 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3763 Africa (GS)
Description: An exploration of the patterns and impact of population, cultural heritage, and natural resources to build an understanding and experience with Africa. Historic and contemporary relationships between Africa and Western civilization. Key themes include traditions and lifeways, development and change, government and conflict, and people and environment. Same course as GLST 3763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3783 The Middle East (GS)
Description: A regional analysis of the Arab, Persian and Turkic lands that builds an understanding and experience with the Middle East. Historic and contemporary patterns highlight both tradition and modernity. Key themes include lifeways and social change, development and globalization, international relations and conflict, and natural resources and environment. Same course as GLST 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3793 Australia and the Pacific Realm (GS)
Description: Study of Australia, New Zealand, and the island regions of Micronesia, Melanesia, and Polynesia. Course examines the cultural and natural diversity of these regions in relation to globalization, climate change, and popular culture. Course covers enduring cultural traditions, legacies of external involvement, changing livelihoods and landscapes, and the region's role in global affairs. Same course as GLST 3793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GEOG 3910 Applied Geographical Topics
Description: Specialized physical, human, regional, or technical issues and trends in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 3990 Geography Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written papers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4003 Natural Hazards and Society
Description: Explores natural hazards and how humans respond and contribute to these hazards and how humans respond and contribute to these hazards and disasters such as earthquakes, extreme weather events and volcanic eruptions. The course will also examine how hazards impact society, how society deals with disasters, and how we can mitigate the effects of such events.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4023 Arid Lands and Drought (N)
Description: The course explores the world of deserts and semideserts, which together cover almost a half of the Earth's land surface, and almost a third of North America's, as well as areas threatened by drought. The course focuses on the nature of dryland environments and the challenges faced by human communities living in such environments, as well as the mechanisms of drought and desertification. No credit for students with degree credit in GEOG 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GEOG 4053 Biogeography, Biodiversity, and Humankind
Description: Biogeography is the study of spatial patterns of biological diversity and its causes. Biogeographers synthesize information from a very broad range of fields, including geology, ecology, paleontology, and climatology. This course is an introduction to the dynamics of biological distributions, speciation, extinction, and dispersals, island biogeography, and applications to species and biodiversity mapping, and the design and management of reserves and other protected natural territories. May not be used for degree credit with GEOG 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4063 Geoarchaeology and Environmental History
Description: Theoretical and methodological aspects of geoarchaeology, a discipline that aims at recovering field data for reconstructing environment-society relationships of the past. Key themes include climate change and human-induced land transformation as demonstrated through interdisciplinary research in different geomorphic contexts and cultural groups (hunter gatherers, agriculturalists, and urbanites) from around the world. Meets with GEOG 5063. No credit for students with credit in GEOG 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4073 Climate Change: Past, Present, and Future
Description: Aims at understanding and discussing the mechanisms of global climate change and how they have functioned in our past, in the recent decades and how scientists predict possible changes in the near and distant future. Meets with GEOG 5073. No credit for students with credit in GEOG 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4083 Grasslands and Savannas: Evolution and Environmental Issues
Description: This course is an analysis of the nature, distribution, and evolution of grasslands, savannas, and other grass-dominated ecosystems around the world, with emphasis on their co-evolutionary development with climate, herbivore, fire, and humans, and the challenges faced modern global climate change and human development. Meets with GEOG 5083. No credit for students with credit in GEOG 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4093 Global Water Resources & Sustainability
Description: Water resources are key to the success of societies in all of their various forms. This course connects fundamental concepts of water resources, including natural processes of the hydrological cycle and societal threats to water quantity and quality, to a water security conceptual framework. With reference to SDG 6, topical issues will be explored in major international case studies to help students develop an awareness and appreciation for the multiple perspectives of water as a precious resource, commodity, and point of justice. May not be used for degree credit with GEOG 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4103 Historical Geography of North America since 1800 (H)
Description: Examination of North American development over the 19th Century, with emphasis on the transformation of environments, landscapes and culture regions. Investigation of settlement frontiers, indigenous dispossession, transport integration, resource exploitation, economic specialization, sectional divergence, industrialization, immigration, and urbanization. Same course as HIST 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 4113 Environment and Development
Description: Focuses on the relationship between people and poverty, environment, and development under different international contexts. The course covers competing theories of environment-development drawing from neoclassical economics and modernization agendas, to criticisms from postcolonial theory and beyond. Special emphasis is placed on diverse voices from the Global South, sustainable development, gender, race and nature, and new social movements. May not be used for degree credit with GEOG 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4123 Geographical Aspects of Urban Planning
Description: Spatial aspects of urban planning: development of planning theory, various planning tools, and specific problem areas such as urban renewal and urban transportation. May not be used for degree credit with GEOG 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4143 Geography of Travel and Tourism
Description: A systematic and comprehensive analysis of the geographical dimensions of tourism, illustrating the relevance of a spatial perspective to tourism planning, development, and management. Economic, social, and environmental impact of both domestic and international tourism considered. May not be used for degree credit with GEOG 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4153 Geography of Outdoor Recreation
Description: Analysis of patterns of outdoor recreation with an emphasis on land-use planning in park and wildland areas. Demand forecasting methods, the analysis of the socioeconomic and spatial impacts of recreation facilities provision and visitor management practices. May not be used for degree credit with GEOG 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4163 Resource Management in the National Parks
Description: Contemporary resource management issues in U.S. National Park units. The role of human and natural processes in the management of water, air, biotic and cultural resources. No credit for students with credit in GEOG 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4203 Fundamentals of Geographic Information Systems
Description: Geographic Information Systems (GIS) are pivotal in the analysis and management of geographic data. They are used to link environmental, social, and economic data to locations on earth and explore the relationships, trends, and patterns that emerge. This course introduces the concepts, principles, and theories behind GIS, with emphasis on the nature of geographic information, methods for data collection, data models for storing geographic information, techniques for data input and manipulation, and basic spatial analysis. Previously offered as GEOG 2343. May not be used for degree credit with GEOG 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4213 Sport, Place and Society (S)
Description: Spatial analysis of sport; its origin and diffusion, geographical organization and regional variation. Geographical movements and interaction associated with sport. Application of geographical solutions for reorganization and reform. Focus on both U.S. and international scene.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Society & Human Behavior

GEOG 4223 Geography of Music (H)
Description: Geographical and historical analysis of music as a cultural trait. The cultural significance of music and how it varies from place to place as well as how it helps shape the character of a place.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Human Heritage & Cultures

GEOG 4233 Human Dimensions of Global Environmental Change
Description: Discusses the current global environmental science research agendas called for by the international community, explores the arguments set forth regarding global environmental change, and looks at the current explanations and theories explaining the human dimensions of land-use/cover-change (lucc). Special emphasis is on alternative, competing visions, and needs of developing countries within the context of economic development and global environmental change. Meets with GEOG 5233. No credit for students with credit in GEOG 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4263 Geospatial Applications for Unmanned Aerial Systems
Prerequisites: Consent of instructor.
Description: Provides theoretical foundation for use of unmanned aerial systems (UAS) to collect geospatial data for analysis. Examines principles of remote sensing, photogrammetry, and GIS relevant to UAS. Enabling technologies (sensors, GPS), data collection procedures, data processing (structure from Motion algorithms), data products (point clouds, orthophotos), and appropriate analysis techniques are investigated. Geospatial application areas include terrain modeling, resource management, agriculture, forestry/vegetation, natural disasters, and geomorphology. May not be used for degree credit with GEOG 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4273 Land Use Science
Description: Basic understanding of human land use history and changes. Evaluation of land use impacts on environment, climate, and public health. Introduction to land use monitoring and modeling using geospatial technologies. Meet with GEOG 5273. No credit for students with credit in GEOG 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4303 Applications of the Global Positioning System in Field Research
Description: Theory and applications of the Global Positioning System (GPS), focusing on accuracy issues in field data collection and integration with geographic information systems (GIS). Use of both recreation and mapping grade receivers. May not be used for degree credit with GEOG 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4313 Field Techniques and Geodata Collection
Prerequisites: Senior standing in GEOG or consent of instructor.
Description: Application of the concepts, methods, and field techniques for geographical analysis and research, including data acquisition, manipulation, analysis, and the presentation of results. Capstone course. Field trips.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4323 Mapping in Modern Society
Description: Thematic mapping and geovisualization of socioeconomic, cultural, and natural resource information. Discussion and application of various map design and layout techniques. Topics include the history of maps their types and usages, the various elements of a map layout, and how maps enable us to communicate spatial information in our modern world.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4333 Remote Sensing
Description: Introductory course in remote sensing focusing on digital image processing. Topics include data collection via satellites and unmanned aerial systems (a.k.a. drones), principles of electromagnetic radiation, multispectral, thermal, and light detection and ranging (LIDAR), and field data collection. Discussions focus on environmental applications including: agriculture, natural resource management, climate, geography, and wildlife management. Hands-on exposure to current image processing software. Meets with GEOG 5333. May not be used for degree credit with GEOG 5333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4343 Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4203.
Description: Provides a theoretical and practical understanding of geographic information systems and its applications in natural resource management. Introduces industry popular GIS software for spatial and aspatial data analysis. Explores specific conditions, requirements, and processing considerations that allow geospatial data to be manipulated for problem solving. Meets with GEOG 5323. No degree credit for students with credit in GEOG 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4353 Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4203.
Description: Theory and principles of geographic information systems (GIS) applied to socioeconomic problems, including location-allocation, market area determination, network analysis and analysis of demographic characteristics. May not be used for degree credit with GEOG 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4373 Geographic Information Systems in Public Health
Prerequisites: GEOG 4203.
Description: Qualitative and quantitative analysis of public health issues from two geographic perspectives: human environment and spatial. Topics include medical geography, disease mapping, spatial data for public health, and basics and applications of spatial statistics, geographic information system and remote sensing. Lectures are combined with case studies and lab illustrations throughout the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4383 Geospatial Programming with Python and AI Tools
Prerequisites: GEOG 4203
Description: This course is designed for students with limited coding experience who are interested in learning Python to explore geospatial data. It introduces basic programming concepts, with emphasis on Python scripting to automate geoprocessing tasks in ArcGIS Pro. It also covers open-source Python packages such as Pandas, GeoPandas, and Matplotlib for processing and visualizing spatial data. As AI gains popularity, the course introduces various AI tools, including ChatGPT and GitHub Copilot, to enhance students' geospatial programming skills. May not be used for degree credit with GEOG 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 5443. Same course as GLST 4443 and HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GEOG 4453 Black Geographies & Memorialization in the Landscape (DH)
Prerequisites: Junior or senior standing or consent of instructor.
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. Same course as AMST 4453 and AFAM 4453. May not be used for degree credit with GEOG 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

GEOG 4510 Senior Project
Prerequisites: Senior standing and consent of instructor.
Description: Individually designed projects involving laboratory work, field work, library research or a combination of these. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4600 Geography Study Abroad (G)
Description: Participation in an international experience sponsored by the Department of Geography. Study Abroad courses typically involve the study of a country or region to provide an integrated understanding, through research and personal experience, of relevant cultural, historical, political, economic and environmental issues. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension

GEOG 4663 Web GIS: Trends, Principles, and Applications
Prerequisites: GEOG 4203.
Description: Web GIS has immense applicability to business, health, economics, transportation, and more. This course is designed to increase students' knowledge of Web GIS and cutting-edge GIS skills. It introduces basic Web GIS concepts, principles, techniques, including web mapping applications. In addition, this course offers essential web programming skills to build customized online maps. May not be used for degree credit with GEOG 5663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 4910 Topics In Geography
Prerequisites: Consent of instructor.
Description: Specialized physical, social and methodological topics in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4940 Undergraduate Cooperative Education Internship
Prerequisites: Consent of departmental internship coordinator and undergraduate committee.
Description: Practical experience in applying geographical concepts and tools to business or governmental problems. Emphasis on educational aspects of applying discipline-related tools to real-world problems. Credit not available for regular employment positions; must have fixed start/end dates. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4943 Geospatial Information Science Internship/Research Capstone
Description: Provides an opportunity to apply knowledge accumulated throughout previous geospatial coursework with a structured off-campus internship or on-campus research capstone. Practical, applied geospatial experience is gained by working with an internship supervisor at a public or private entity in consultation with an affiliated geography faculty member. Alternatively, research-oriented experience is gained through direct collaboration with an affiliated geography faculty member. For both options, student duties may include field-based data collection, data processing, computer programming, spatial analysis/modeling, map and graphics production, oral presentation, and/or writing.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

GEOG 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader, both of whom will be present at an oral defense of the thesis. Required for graduation with honors in geography.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography
General Education and other Course Attributes: Honors Credit

GEOG 5000 Thesis
Prerequisites: Consent of adviser or major professor.
Description: Open only to students working on the master's degree in geography. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5001 Professional Development in Geography
Description: Introduction and orientation to the graduate program in the Department of Geography.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5023 Arid Lands and Drought
Description: The course explores the world of deserts and semi-deserts, which together cover almost a half of the Earth's land surface, and almost a third of North America's, as well as areas threatened by drought. The course focuses on the nature of dryland environments and the challenges faced by human communities living in such environments, as well as the mechanisms of drought and desertification.No credit for students with credit in GEOG 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5053 Biogeography, Biodiversity, and Humankind
Description: Biogeography is the study of spatial patterns of biological diversity and its causes. Biogeographers synthesize information from a very broad range of fields, including geology, ecology, paleontology, and climatology. This course is an introduction to the dynamics of biological distributions, speciation, extinction, and dispersals, island biogeography, and applications to species and biodiversity mapping, and the design and management of reserves and other protected natural territories. No credit for students with credit in GEOG 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5063 Geoarchaeology and Environmental History
Description: Theoretical and methodological aspects of geoarchaeology, a discipline that aims at recovering field data for reconstructing environment-society relationships of the past. Key themes include climate change and human-induced land transformation as demonstrated through interdisciplinary research in different geomorphic contexts and cultural groups (hunter gatherers, agriculturalists, and urbanites) from around the world. Meets with GEOG 4063. No credit for students with credit in GEOG 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5073 Climate Change: Past, Present and Future
Description: Aims at understanding and discussing the mechanisms of global climate change and how they have functioned in our past, in the recent decades and how scientists predict possible changes in the near and distant future. Meets with GEOG 4073. No credit for students with credit in GEOG 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5083 Grasslands and Savannas: Evolution and Environmental Issues
Description: This course is an analysis of the nature, distribution, and evolution of grasslands, savannas, and other grass-dominated ecosystems around the world, with emphasis on their co-evolutionary development with climate, herbivore, fire, and humans, and the challenges faced by modern global climate change and human development. No credit for students with credit in GEOG 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5093 Global Water Resources & Sustainability
Description: Water resources are key to the success of societies in all of their various forms. This course connects fundamental concepts of water resources, including natural processes of the hydrological cycle and societal threats to water quantity and quality, to a water security conceptual framework. With reference to SDG 6, topical issues will be explored in major international case studies to help students develop an awareness and appreciation for the multiple perspectives of water as a precious resource, commodity, and point of justice. May not be used for degree credit with GEOG 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5103 Fundamentals of Geographic Information Systems
Description: Geographic Information Systems (GIS) are pivotal in the analysis and management of geographic data. They are used to link environmental, social, and economic data to locations on earth and explore the relationships, trends, and patterns that emerge. This course introduces the concepts, principles, and theories behind GIS, with emphasis on the nature of geographic information, methods for data collection, data models for storing geographic information, techniques for data input and manipulation, and basic spatial analysis. May not be used for degree credit with GEOG 4203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5113 Landscape Ecology
Prerequisites: Graduate standing and BIOL 3034 or consent of instructor.
Description: Principles of landscape ecology, including structure and function of landscape elements such as patch, corridor, boundary, and matrix. Role of geographic processes, climate, biota, disturbance, and human influences in landscape structure and function. Interaction among landscape elements and role of landscape structure in ecosystem and landscape dynamics. Applications of landscape ecology to biodiversity conservation, wildlife management, and landscape planning. Survey of quantitative methods used in landscape ecology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5123 International Resource Management
Prerequisites: Graduate standing.
Description: Spatial perspectives on the assessment and management of natural resources. The role of resources in world trade, security and international environmental concerns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5133 Environment and Development
Description: Focuses on the relationship between people and poverty, environment, and development under different international contexts. The course covers competing theories of environment-development drawing from neoclassical economics and modernization agendas, to criticisms from postcolonial theory and beyond. Special emphasis is placed on diverse voices from the Global South, sustainable development, gender, race and nature, and new social movements. May not be used for degree credit with GEOG 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5140 Seminar in Cultural Geography
Prerequisites: Graduate standing in geography or consent of the instructor.
Description: A study of the methodological and theoretical development of cultural geography, one of geography's major subdisciplines. Course is structured around the social and political implications of ways of seeing, and what these have meant for encountering and understanding cultural difference. Emphasis on reading the cultural landscape and interrogating how the landscape reinforces certain ideologies, values, and aesthetics. Critical analysis of geographical representations found in place images, popular culture, and art in relation to social power, race, gender, and identity. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5143 Geography of Travel and Tourism
Description: A systematic and comprehensive analysis of the geographical dimensions of tourism, illustrating the relevance of a spatial perspective to tourism planning, development, and management. Economic, social, and environmental impact of both domestic and international tourism considered. May not be used for degree credit with GEOG 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5150 Geography of Sport, Recreation and Leisure Seminar
Description: This seminar is comprised of an advanced analysis of one or more topics in Sport Geography. The topics can include both cultural and economic issues in the spatial distribution of sport, or any other spatial aspect of the play, diffusion, or impact of sport. The seminar will also focus on student research activities on specific topics to sport geography. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5153 Geography of Outdoor Recreation
Description: Analysis of patterns of outdoor recreation with an emphasis on land-use planning in park and wildland areas. Demand forecasting methods, the analysis of the socioeconomic and spatial impacts of recreation facilities provision and visitor management practices. May not be used for degree credit with GEOG 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5163 Resource Management in the National Parks
Description: Contemporary resource management issues in U.S. National Park units. Focus on the role of human and natural processes in the management of water, air, biotic and cultural resources. No credit for students with credit in GEOG 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5183 Topics in Transportation Geography
Description: Examination of a selected set of advanced topics in transportation geography, including network analysis, facility location problems, intelligent transportation systems and geographic information systems and logistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5213 Geographical Aspects of Urban Planning
Description: Spatial aspects of urban planning: development of planning theory, various planning tools, and specific problem areas such as urban renewal and urban transportation. May not be used for degree credit with GEOG 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5233 Human Dimensions of Global Environmental Change
Description: Discusses the current global environmental science research agendas called for by the international community, explores the arguments set forth regarding global environmental change, and looks at the current explanations and theories explaining the human dimensions of land-use/cover-change (lucc). Special emphasis is on alternative, competing visions, and needs of developing countries within the context of economic development and global environmental change. Meets with GEOG 4233. No credit for students with credit in GEOG 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5243 Geography of the World's Indigenous Peoples
Prerequisites: Graduate standing and consent of instructor.
Description: A regional survey of indigenous assertions of cultural, political and economic self-determination outside the United States. Native land claims, impact of regional development and environmental issues upon indigenous communities, and their efforts to establish geo-political autonomy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5253 Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4203.
Description: Theory and principles of geographic information systems (GIS) applied to socioeconomic problems, including location-allocation, market area determination, network analysis and analysis of demographic characteristics. May not be used for degree credit with GEOG 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5263 Geospatial Applications for Unmanned Aerial Systems
Prerequisites: Consent of instructor.
Description: Provides theoretical foundation for use of unmanned aerial systems (UAS) to collect geospatial data for analysis. Examines principles of remote sensing, photogrammetry, and GIS relevant to UAS. Enabling technologies (sensors, GPS), data collection procedures, data processing (Structure from Motion algorithms), data products (point clouds, orthophotos), and appropriate analysis techniques are investigated. Geospatial application areas include terrain modeling, resource management, agriculture, forestry/vegetation, natural disasters, and geomorphology. May not be used for degree credit with GEOG 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5273 Land Use Science
Description: Basic understanding of human land use history and changes. Evaluation of land use impacts on environment, climate, and public health. Introduction to land use monitoring and modeling using geospatial technologies. Meets with GEOG 4273. No credit for students with credit in GEOG 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5303 Geographic Analysis I
Prerequisites: One course in statistics.
Description: An intermediate course in the application of statistical methods to spatial problems. Focuses on multivariate methods (e.g. multiple regression, factor and cluster analysis) and their use in geographic settings and with spatial datasets. Includes introductory spatial regression, methods for detecting spatial clusters (spatial autocorrelation), and the importance of exploratory spatial data analysis (ESDA) in geographic research. Course previously offered as GEOG 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5323 Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4203 or instructor permission.
Description: Provides a theoretical and practical understanding of geographic information systems and its applications in natural resource management. Introduces industry popular GIS software for spatial and aspatial data analysis. Explores specific conditions, requirements, and processing considerations that allow geospatial data to be manipulated for problem solving. Meets with GEOG 4343. No degree credit for students with credit in GEOG 4343.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5333 Remote Sensing
Description: Introductory course in remote sensing focusing on digital image processing. Topics include data collection via satellites and unmanned aerial systems (a.k.a. drones), principles of electromagnetic radiation, multispectral, thermal, and light detection and ranging (LIDAR), and field data collection. Discussions focus on environmental applications including: agriculture, natural resource management, climate, geography, and wildlife management. Hands-on exposure to current image processing software. Meets with GEOG 4333. May not be used for degree credit with GEOG 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5343 Advanced Geographic Information Systems: Resource Management Applications
Prerequisites: GEOG 4343 or GEOG 5323.
Description: Advanced theory and applications of geographic information systems (GIS) applied to resource management problems using both raster and vector data structures. Individual projects, presentations and group discussion sessions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5353 Advanced Geographic Information Systems: Socioeconomic Applications
Prerequisites: GEOG 4353 or GEOG 5253.
Description: Advanced theory and applications of geographic information systems (GIS) applied to socioeconomic problems including location allocation, market area determination, network analysis, and analysis of demographic characteristics. Individual projects, presentations and group discussion sessions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5363 Enterprise Geographic Information Systems
Prerequisites: GEOG 4353 or equivalent.
Description: Basic setup and creation of online geodatabases and Internet mapping services as would be used in a large scale GIS operation or enterprise. Geodatabase design and Internet mapservice Web site development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5373 Geographic Information Systems in Public Health
Prerequisites: GEOG 4203 or instructor permission.
Description: This course introduces the applications of GIS and spatial analysis in exploring and analyzing geospatial health datasets. The course focuses on preparing, organizing, and mapping health datasets, detecting disease clusters, measuring and optimizing health services, and applying spatial statistical models to various public health applications, such as infectious disease, environmental health, health service access, and health disparities. Students will learn how to acquire spatial data, visualize geographic trends, and formulate hypotheses for health applications. May not be used for degree credit with GEOG 4373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5383 Geospatial Programming with Python and AI Tools
Prerequisites: GEOG 4203 or GEOG 5103
Description: This course is designed for students with limited coding experience who are interested in learning Python to explore geospatial data. It introduces basic programming concepts, with emphasis on Python scripting to automate geoprocessing tasks in ArcGIS Pro. It also covers open-source Python packages such as Pandas, GeoPandas, and Matplotlib for processing and visualizing spatial data. As AI gains popularity, the course introduces various AI tools, including ChatGPT and GitHub Copilot, to enhance students' geospatial programming skills. May not be used for degree credit with GEOG 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5393 Remote Sensing of Water Resources
Prerequisites: GEOG 2323 or GEOG 4333.
Description: Advanced theories and techniques of remote sensing applied to various issues in water resources management. Sensor characteristics, theoretical algorithms, digital image processing, and field methods to extract information of multiple aspects valuable for both hydrological modeling and decision-making. Advantages and limitations of remote sensing compared to traditional methods will be explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5403 Current Geographic Research
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Representative survey of current research across the discipline of modern Geography so as to broaden perspectives and appreciation of Geography's breadth and impact. Emphasis on the discipline's major affinity groups, their notable institutions and individuals, and their impact toward the greater good. Exercises familiarize students with the process of developing a thesis or dissertation proposal, from determining an area of emphasis, identifying a research problem, conducting a literature review, and developing and defending a thesis or dissertation proposal.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5413 History and Philosophy of Geography
Prerequisites: Graduate standing in geography or consent of the instructor.
Description: Study of the making of geography as an academic discipline, and the evolution of geographic thought and practice. A critical inquiry into the production of geographic knowledge as it has changed over time and in relation to developments in science and society. Discussions examine significant theoretical and methodological "turns" and explore the influences of key individuals, institutions, and major debates.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5423 Geographic Renderings in Qualitative Methods
Prerequisites: SCFD 5913 or SCFD 6123 or SOC 5273 or consent of instructor.
Description: Seminar engages with geographic facets in qualitative research and provides students with experience in collecting and working with qualitative data. Students explore avenues of qualitative inquiry in cross-cultural, community participation, and storytelling/testimonial/oral history/life history, and ethnographic research with special consideration to space, place, scale, context, body, and senses. Course addresses issues involved with analysis, interpretation, and "writing-up" research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5450 Seminar in Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Specialized topics in Geography. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5453 Black Geographies & Memorialization in the Landscape
Description: How and why have African American people sought to memorialize their history in public places? How have Black counterpublics shaped discourse on memorials to African American history? What has this discourse done to the field of landscape and memory studies? To explore these questions, this course is organized around memory in the landscape as it relates to black geographies, including, for example, slavery, the Civil War, civil rights, and the Tulsa Race Massacre in the United States. Approaches may be comparative or transnational. May not be used for degree credit with AFAM 4453, AMST 4453, or GEOG 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5503 Applications of the Global Positioning System in Field Research
Description: Theory and applications of the Global Positioning System (GPS), focusing on accuracy issues in field data collection and integration with geographic information systems (GIS). Use of both recreation and mapping grade receivers. May not be used for degree credit with GEOG 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5510 Research Problems in Geography
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5663 Web GIS: Trends, Principles, and Applications
Prerequisites: GEOG 4203 or instructor permission.
Description: Web GIS has immense applicability to business, health, economics, transportation, and more. This course is designed to increase students' knowledge of Web GIS and cutting-edge GIS skills. It introduces basic Web GIS concepts, principles, techniques, including web mapping applications. In addition, this course offers essential web programming skills to build customized online maps. May not be used for degree credit with GEOG 4663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GEOG 5700 Geography Study Abroad
Description: Participation in an international experience sponsored by the Department of Geography. Study Abroad courses typically involve the study of a country or region to provide an integrated understanding, through research and personal experience, of relevant cultural, historical, political, economic, and environmental issues. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 5930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 5940 Graduate Cooperative Education Internship
Prerequisites: Consent of departmental internship coordinator and graduate committee.
Description: Practical experience in applying geographical concepts and tools to business or governmental problems. Emphasis on educational aspects of applying discipline-related tools to real-world problems. Credit not available for regular employment positions; must have fixed start/end dates. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6000 Doctoral Dissertation Research
Prerequisites: Admission to candidacy and consent of major professor.
Description: Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6013 Seminar in Quaternary Paleoecology
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Analysis and discussion of various aspects of research on the Quaternary period, emphasizing the roles played by climate, geomorphic processes, vegetation, soil and fauna.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6110 Seminar in Cultural and Political Ecology
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Study of the relationship between culture and environment and competing theories of human-environment interactions. Traces the roots of cultural ecology starting with classic ecological systems and adaptation theory, to criticisms leading to the development of "political" and "hybrid" ecologies. Course focuses on Marxist influences, inequalities of third world development, gender and resource management, social and environmental movements, indigenous knowledge, natural disasters and environmental vulnerability. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6120 Seminar in Urban Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Analysis of research on urban systems, internal morphology, urban problems and urban spatial behavior. Review and analysis of student research efforts. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6130 Seminar in Political Geography
Prerequisites: Graduate standing in geography or consent of instructor.
Description: Theoretical foundations of political geography from MacKinder and Hartshorne to recent writings by Smith, Anderson and other modern theorists. Nationalism, national identity, state formation and cohesion considered in a spatial context. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6180 Seminar in Transportation Geography
Prerequisites: Graduate standing.
Description: Examination of transportation systems, emphasizing their effects on trade, land use, location issues, and development. Review of trends, problems, and methods related to transport issues. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6210 Seminar in Historical Geography
Prerequisites: Graduate standing.
Description: This seminar explores historical geographic research concerning places and environments, the dynamics of place, space, and landscape as well as how the past shapes the geographies of the present and the future. It considers methodological practices and theoretical understandings associated with historical geographic scholarship. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6303 Geographic Analysis II
Prerequisites: GEOG 5303.
Description: An advanced course in the application of statistical methods to spatial problems. Focuses on univariate and bivariate spatial autocorrelation, geographically weighted regression (GWR), spatial weighting, and visualization of geostatistical data. Heavy emphasis on current research in geospatial techniques and student research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6313 Mixed Methods in Field Research
Prerequisites: Graduate standing in geography or consent of instructor.
Description: This course will expose students to a variety of qualitative and quantitative techniques useful in successfully designing and completing field research. Special focus will include research and survey design, interviewing, ethnography, and visual techniques such as the use of imagery, photography, sketch mapping, and Global Positioning Systems (GPS) for the collection and analysis of geospatial data. Required field trips.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6333 Advanced Remote Sensing
Prerequisites: GEOG 4333 or GEOG 5333.
Description: Provides in-depth theoretical exploration of advanced remote sensing and image analysis techniques. Special topics include advanced classifications, hyperspectral imagery, and LiDAR. Specific issues surrounding data capture, image processing, and analysis will be discussed to prepare students for semester-long research projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geography

GEOG 6910 Topics in Geography
Prerequisites: Consent of instructor.
Description: Specialized physical, social and methodological topics in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GEOG 6930 Readings in Geography
Prerequisites: Consent of instructor.
Description: Directed readings on selected topics, regions or methods in geography. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Geography

GLST 1713 Regions & Nations in Global Context (GS)
Description: A regional approach to the study of human societies and the makeup of nations around the world, with an emphasis on contemporary issues such as climate change, sustainability and other environmental impacts; population and immigration; culture, religion and language; and economic characteristics such as wealth disparities, poverty and education. This course covers many distinct world regions such as Europe, Latin America, the Middle East and Southeast Asia. Same course as GEOG 1713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 2002 Global Sustainability (N)
Description: This course examines questions of sustainability and sustainable development in a global context from environmental, social, and economic perspectives. Emphasis is placed on how different dimensions of sustainability interact, and how those interactions are shaped by regional context in a globalized world. Through discussion of policy and current environmental issues around the world, students will learn to analyze relationships and tradeoffs between humans and their environment. Same course as GEOG 2002.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Natural Science Reasoning

GLST 2103 Global Perspectives (GS)
Description: Introduces students to the cultural, economic, and political aspects of globalization and global issues. Emphasizes the relationship between tradition and change, the interconnectedness of people, places, and institutions, aspects of social and economic development, and the evolving role of technology in creating and sustaining a globalized world. Also introduces students to possible career options. Same course as GEOG 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3053 Introduction to Central Asia Studies (GS)
Description: A comprehensive view of newly-emerged Central Asian states, examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan as reflected in their thoughts, religion, literature, and architecture in the past, and the strategic importance of their natural wealth for the present and future. Same course as GEOG 3053, HIST 3053, POLS 3053, and RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3113 Global Water Resources: Sustainability & Justice
Description: Water resources are key to the success of societies in all of their various forms. This course introduces students to fundamental concepts of water resources, including the natural processes of the hydrological cycle, management of water resources, and societal threats to sustaining water quantity and quality. Students in this course will develop an awareness and appreciation of the multiple perspectives about water as a precious resource, commodity, and point of justice. Same course as GEOG 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geography

GLST 3713 Exploring North America and Diversity (DS)
Description: This course presents a regional analysis of the United States and Canada, including physical and cultural landscapes, population and migration trends, regional development, natural resources, and U.S.-Canada relations as well as global relations. In addition, it emphasizes diversity in both countries, with special attention to those geographies of under-represented and minority groups in the U.S. Same course as GEOG 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: Diversity, Society & Human Behavior

GLST 3723 Europe (GS)
Description: This course examines the cultural, economic, and natural diversity of Europe in relation to globalization, climate change, and popular culture. Basic geographic concepts such as migration, region, and culture will be linked to European current events. Students will learn to properly utilize online sources to understand current European issues and their relationship to other countries and regions around the world. Same course as GEOG 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3733 Russia and Its Neighbors (GS)
Description: A regional survey course of Eurasia extending from Central Europe to Western Siberia. Central and Southwest Asia will not be considered in this course. Thematic contemporary issues in the region will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GEOG 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3743 Latin America (GS)
Description: A regional analysis of physical, cultural and economic features of historic and contemporary Latin America. Key themes include people and environment, development and change, government and conflict, and globalization and social change. Same course as GEOG 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3753 Asia (GS)
Description: A regional survey course of Asia from Pakistan in the west to the Asian littoral in the east, including Japan, Taiwan, and the Philippines. Central and Southwest Asia will not be considered in this course. Regionally, Asia will be approached through examination of two great cultural focal points: India and China. Thematic contemporary issues in Asia will be covered, including topics on culture, politics, social issues, economic development, and others. Same course as GEOG 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3763 Africa (GS)
Description: An exploration of the patterns and impact of population, cultural heritage, and natural resources to build an understanding and experience with Africa. Historic and contemporary relationships between Africa and Western civilization. Key themes include traditions and lifeways, development and change, government and conflict, and people and environment. Same course as GEOG 3763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3783 The Middle East (GS)
Description: A regional analysis of the Arab, Persian and Turkic lands that builds an understanding and experience with the Middle East. Historic and contemporary patterns highlight both tradition and modernity. Key themes include lifeways and social change, development and globalization, international relations and conflict, and natural resources and environment. Same course as GEOG 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 3793 Australia and the Pacific Realm (GS)
Description: Study of Australia, New Zealand, and the island regions of Micronesia, Melanesia, and Polynesia. Course examines the cultural and natural diversity of these regions in relation to globalization, climate change, and popular culture. Course covers enduring cultural traditions, legacies of external involvement, changing livelihoods and landscapes, and the region's role in global affairs. Same course as GEOG 3793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography
General Education and other Course Attributes: International Dimension, Society & Human Behavior

GLST 4443 Sustainable Tourism and Geography
Prerequisites: Junior or senior standing or consent of instructor.
Description: This course examines sustainable tourism from a cultural and environmental perspective. It discusses concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. The course addresses management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. May not be used for degree credit with GEOG 4443 and HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geography

GLST 4513 Senior Capstone Experience
Prerequisites: Consent of the instructor and advisor.
Description: Designed specifically for Global Studies majors. Reviews key literature, relates coursework in the major to career plans, and culminates in a research project. Students design and execute a research project and give an oral presentation based on their project and experience.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geography

Undergraduate Programs

- Geography, BA (p. 1350)
- Geography, BS (p. 1353)
- Geography: Business Essentials, BA (p. 1356)
- Geography: Business Essentials, BS (p. 1359)
- Geography: Pre-Law, BA (p. 1362)
- Geography: Pre-Ministry, BA (p. 1365)
- Geospatial Information Science, BS (p. 1368)
- Global Studies, BA (p. 1373)
- Global Studies: Business Essentials, BA (p. 1377)
- Global Studies: Pre-Law, BA (p. 1381)
- Global Studies: Pre-Ministry, BA (p. 1384)

Graduate Programs

The Department of Geography offers MS and PhD degrees. We have a vibrant graduate program that is built around three broad areas of emphasis: the study of nature-society dynamics, including resource management; GIScience, including unmanned aerial systems; and cultural and historical geography. Major faculty specializations include public health, water security, GIS, remote sensing, climate science, human dimensions of global environmental change, cultural and historical geography, urban and transportation geography, political geography, geoarchaeology, and spatial analysis.

Particular emphasis is placed on the applied aspects of geography, with many graduates employed by private business as well as city, regional, state and national planning agencies. Our graduates have been highly successful in their careers, taking up positions involving city planning, environmental assessment, and university teaching and research, among many others.

The Master of Science Degree

Admission to the master's program in geography is granted to college graduates with superior academic records. An undergraduate geography major is not required. Majors from the social, physical, and behavioral sciences and from the humanities are encouraged to apply. Incoming graduate students must demonstrate competency in cultural geography, physical geography, statistics and cartography. If a student lacks these prerequisite skills, an additional course in each of these subjects is required.

Thesis and non-thesis options exist for the master's degree. The thesis option requires a minimum of 30 credit hours, including a thesis. The non-thesis option requires 36 credit hours. Plans of study can be developed to accommodate many interests.

The Doctor of Philosophy Degree

Admission to the PhD program is granted to students with superior records in their previous graduate study. A previous degree in geography is not required, but incoming students from other disciplines must demonstrate competency in cultural geography, physical geography, statistics and cartography. If a student lacks these prerequisite skills, an additional course in each of these subjects is required. A minimum of 60 hours of graduate credit beyond the master's degree is required for the PhD degree. These hours include core courses (13 hours), elective courses in geography (15 hours minimum), elective courses outside of geography (9 hours minimum), and dissertation hours (15 hours minimum). Each student chooses an individual doctoral committee that advises the student in the formulation of an approved plan of study for the degree. Candidates for the PhD in geography must demonstrate either:

1. proficiency in one language other than English,
2. reading knowledge of two languages other than English,
3. proficiency in advanced quantitative methods,
4. proficiency in advanced qualitative methods, or
5. proficiency in a multi-skill track.

To be advanced to doctoral candidacy, the student must demonstrate proficiency in three specialized subject areas within geography and related disciplines by passing written and oral comprehensive examinations. An important requirement for the PhD degree is the preparation and successful defense of a doctoral dissertation. The dissertation must demonstrate the candidate's ability to plan and complete independent, original research in geography.

Minors

- Geography (GEOG), Minor (p. 1349)
- Geospatial Information Technologies (GSIT), Minor (p. 1371)
- Global Studies (GLST), Minor (p. 1372)

Certificates

- Environmental Studies, UCRT (p. 1347)
- Geographic Information Systems, CRT (p. 1348)

Faculty

Jonathan C. Comer, PhD—Professor and Head
Professors: Carlos E. Cordova, PhD; Alyson L. Greiner, PhD; Reuel R. Hanks, PhD; Dale R. Lightfoot, PhD (emeritus); Rebecca Sheehan, PhD; Stephen J. Stadler, PhD (emeritus); Thomas A. Wikle, PhD (emeritus)
Associate Professors: Brad A. Bays, PhD; G. Allen Finchum, PhD (emeritus); Hamed Gholizadeh, PhD; Stephen W. Tweedle, PhD (emeritus); Hongbo Yu, PhD; Yuting Zhou, PhD
Assistant Professors: Rory Hill, PhD; Tao Hu, PhD; G. Thomas LaVanchy, PhD
Teaching Assistant Professor: Danielle Dempsey, PhD
Teaching Instructor: Donald Colley

Environmental Studies, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 17

Code	Title	Hours
Core		
ENVR 1113	Elements of Environmental Science (N)	3
GEOG 1022	Climate Change and Humanity (N)	2
or GEOL 1022	Climate Change and Humanity (N)	
or GEOG 2002	Global Sustainability (N)	
or GLST 2002	Global Sustainability (N)	
GEOG 4233	Human Dimensions of Global Environmental Change	3
Hours Subtotal		**8**
Electives		
Select 9 hours from the following:		9
Human-Environment Interactions:		
AGEC 3023	Farm to Fork	
AGEC 3723	Environmental Law for Agriculture and Natural Resources	
AMST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
ANSI 3903	Agricultural Animals of the World (I)	
ARCH 4293	The Ethics of the Built Environment (H)	
ENTO 2003	Insects and Society (N)	
ENTO 2223	Insects in Global Public Health (N)	
ENVR 4512	Introduction to National Environmental Policy Act	
ENVR 4573	Ethical Issues in Agriculture and the Environment	
GEOG 3113	Global Water Resources: Sustainability & Justice	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 3373	Health and Maps	
GEOG 4003	Natural Hazards and Society	
GEOG 4113	Environment and Development	
GEOG 4443	Sustainable Tourism and Geography	
GEOL 2443	Environmental Geology and Human Health (N)	
GEOL 3043	Geology of the National Parks	
HIST 4523	American Environmental History (H)	
LA 2413	Ecological Landscape Design	
LA 2513	Native American Symbolism in Landscape Design (D)	
NREM 3502	Wildlife Law Enforcement	
NREM 4043	Natural Resource Administration and Policy	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (I)	
NSCI 3543	Food and the Human Environment (IS)	
PBIO 3253	Environment and Society (N)	
PBIO 3263	Plants and People (N)	
PBIO 3273	Medical Botany (N)	
PHIL 3703	Ethics & Animals (H)	
PHIL 3733	Environmental Ethics (H)	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4533	World Population Problems	
The Environment:		
BIOL 3053	Freshwater: Concepts, Threats and Management (N)	
ENTO 3003	Livestock Entomology	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 3023	Climatology (N)	
GEOG 3033	Meteorology (N)	
GEOG 4023	Arid Lands and Drought (N)	
GEOG 4053	Biogeography, Biodiversity, and Humankind	
GEOG 4063	Geoarchaeology and Environmental History	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOL 3073	Geomorphology	
GEOL 3503	Environmental Geology (N)	
NREM 3013	Applied Ecology and Conservation	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
or ENVR 4033	Ecology of Invasive Species	
NREM 4443	Watershed Hydrology and Water Quality	
No more than one elective course can be at the 2000-level.		
Other courses with half or more environmental content may be considered alternates for elective courses. Consult with program coordinator for qualified alternatives.		
Total Hours		**17**

Geographic Information Systems, CRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
A minimum 3.00 GPA is required for all courses taken for the certificate program.		
Core Courses		
Select 9 hours:		9
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
GEOG 4373	Geographic Information Systems in Public Health	
GEOG 5343	Advanced Geographic Information Systems: Resource Management Applications	
GEOG 5353	Advanced Geographic Information Systems: Socioeconomic Applications	
Elective Courses		
Select 1 course from each category.		
Category I: Spatial Analysis/GIS Programming		3
GEOG 3333	Spatial Analysis (A)	
GEOG 4383	Introduction to GIS Programming	
Category II: Spatial Data Collection, Management, and Representation		3
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4303	Applications of the Global Positioning System in Field Research	
GEOG 4313	Field Techniques and Geodata Collection	
GEOG 4323	Mapping in Modern Society	
GEOG 4333	Remote Sensing	
GEOG 4663	Web GIS: Trends, Principles, and Applications	
Category III: GIS Practice and Enhancement		1
GEOG 4940	Undergraduate Cooperative Education Internship	
May substitute GEOG 4943 or any other certificate course that has not been used to fulfill other certificate requirements.		
Courses from other OSU programs that contain at least 50% of geospatial technology in the course content may be considered as alternatives for elective courses. Consult with program coordinator for qualified alternatives.		
Total Hours		**16**

Geography (GEOG), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Total Hours: 16

Code	Title	Hours
Minor Requirements		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 1114	Introduction to Physical Geography (LN)	4
Select at least nine additional hours, including six at the upper-division level		9
Total Hours		**16**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Geography, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
GEOG 1114	Introduction to Physical Geography (LN) [1]	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
Core courses		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4323	Mapping in Modern Society	3
Additional GEOG courses		
Select 24 hours (21 hours must be upper-division)		24
Related courses		
Select 6 hours upper-division (non-GEOG) departmental approved related courses		6
Hours Subtotal		**46**
Electives		
Select 12 hours		12
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**12**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
1813 Second Semester Foreign Language		3
General Education courses		6
	Hours	**16**
Sophomore		
Fall		
2000-level Foreign Language		3
College and Elective courses		12
	Hours	**15**

Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geography, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
GEOG 1114	Introduction to Physical Geography (LN) [1]	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Core courses		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 3333	Spatial Analysis (Q)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4323	Mapping in Modern Society	3
Select one of the following:		3
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
Additional GEOG courses		
Select 21 hours (18 hours must be upper-division) [2]		21
Related courses		
Select 6 hours upper-division (non-GEOG) departmental approved related courses		6
Hours Subtotal		**45**
Electives [2]		
Select 22 hours		22
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**22**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for these areas, including up to 3 hours of upper-division GEOG.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
General Education courses		4
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
General Education courses		9
	Hours	**16**

Sophomore		
Fall		
General Education, College, and Major courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
GEOG 3333	Spatial Analysis (Q)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4333 or GEOG 4343 or GEOG 4353	Remote Sensing or Geographic Information Systems: Resource Management Applications or Geographic Information Systems: Socioeconomic Applications	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geography: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, excluding MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course.		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
Core		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4323	Mapping in Modern Society	3
Additional GEOG courses		
Select 24 hours (21 hours must be upper-division)		24
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**52**
Electives		
6 hours of Electives		6
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**6**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree

requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, excluding MATH 1493)	3
1813 Second Semester Foreign Language		3
General Education courses		6
	Hours	**16**
Sophomore		
Fall		
2000-level Foreign Language		3
College and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
GEOG 4203	Fundamentals of Geographic Information Systems	3

Major, College, and Elective courses		12
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geography: Business Essentials, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
(See note 2.b.)		9
Foreign Languages		
0-6 hours		
(See note 3.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Core		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 3333	Spatial Analysis (Q)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4323	Mapping in Modern Society	3
Select one of the following:		3
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
Additional GEOG courses		
Select 21 hours (18 hours must be upper-division)		21
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**51**
Electives		
16 hours of Electives		16
May need to include 6 hours of a foreign language (see note 3.).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
General Education courses		4
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
General Education courses		9
	Hours	**16**

Sophomore		
Fall		
General Education, College, and Major courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
GEOG 3333	Spatial Analysis (Q)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
GEOG 4333 or GEOG 4343 or GEOG 4353	Remote Sensing or Geographic Information Systems: Resource Management Applications or Geographic Information Systems: Socioeconomic Applications	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geography: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN) [1]	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
(See note 2.b.)		
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
Core Courses		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	3
or GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
Additional GEOG courses		
Select 18 hours (15 must be upper-division)		18
Law-related courses		
Select 15 hours from the following or at the discretion of the advisor.		15
AGEC 3713	Agricultural Law	
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
ENGL 3323	Technical Writing	
LSB 3213	Legal and Regulatory Environment of Business	
LSB 4633	Legal Aspects of International Business Transactions (G)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 4363	Environmental Law And Policy	
PSYC 4143	Psychology and Law	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**45**
Electives		**13**

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.	
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.	
Hours Subtotal	**13**
Total Hours	**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
1813 Second Semester Foreign Language		3
General Education courses		6
	Hours	**16**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
2000-level Foreign Language		3
General Education, College, and Elective courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geography: Pre-Ministry, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course.		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
Core		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	3
or GEOG 3713	Exploring North America and Diversity (DS)	
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4313	Field Techniques and Geodata Collection	3
Additional GEOG courses		
Select 18 hours (15 hours must be upper-division)		18
Pre-Ministry Preparation		
Select 15 hours from the following:		
Select 9 hours upper-division REL courses, with at least 3 hours with non-Western emphasis		9
Select 6 hours upper-division (non-GEOG) Culture and Society courses from the following or at the discretion of the advisor:		6
AMST 3253	Globalization and American Culture (H)	
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
CPSY 3003	Introduction to Counseling and Related Professions	
HIST 3363	Popular Religion in the West, 1300-1700 (H)	
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe	
PHIL 3613	Philosophy of Religion (H)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4533	World Population Problems	
SOC 4653	Gender and the Middle East (GS)	
SOC 4383	Social Stratification (S)	
SOC 4723	Sociology of Families (S)	
Hours Subtotal		**45**
Electives		
13 hours of Electives		13

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.	
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.	
Hours Subtotal	**13**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1114	Introduction to Physical Geography (LN)	4
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3

1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
1813 Second Semester Foreign Language		3
General Education courses		6
	Hours	**16**
Sophomore		
Fall		
2000-level Foreign Language		3
General Education, College, and Major courses		12
	Hours	**15**
Spring		
General Education, College, and Major courses		15
	Hours	**15**
Junior		
Fall		
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
GEOG 4313	Field Techniques and Geodata Collection	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geospatial Information Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
GEOG 1114	Introduction to Physical Geography (LN) [1]	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1113	Computer Science I (Q)	3
Select 6 additional hours		6
See note 2.b.		
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Core courses		
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
GEOG 3333	Spatial Analysis (Q)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4323	Mapping in Modern Society	3
GEOG 4383	Geospatial Programming with Python and AI Tools	3
GEOG 4943	Geospatial Information Science Internship/ Research Capstone	3
Select three of the following:		9
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOL 4303	Geophysical Field Methods	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
GEOG 4373	Geographic Information Systems in Public Health	
GEOG 4663	Web GIS: Trends, Principles, and Applications	
Select one of the following:		3
CS 2133	Computer Science II	
MSIS 2203	Computer Programming for Business	
MSIS 3103	End User Database Systems Design and Management	
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Select 6 hours upper-division GEOG courses		6
Select 6 hours upper-division (non-GEOG) departmental approved related courses		6
AVED 4343	Geospatial Technologies for Aerospace Managers	
CIVE 3614	Engineering Surveying	
CIVE 4033	GIS Applications for Water Resources	

MSIS 3163	Web Design Essentials
MSIS 3203	Advanced Computer Programming for Business
MSIS 4033	Information Systems Project Management and Communication
MSIS 4273	Legal and Ethical Issues in Information Systems
MSIS 4623	Data Science Programming
MSIS 4673	Data Visualization
And others with consent of department	
Hours Subtotal	**46**
Electives	
Select 21 hours	21
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours	
Hours Subtotal	**21**
Total Hours	**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 2144	Calculus I (Q)	4
GEOG 1114	Introduction to Physical Geography (LN)	4
General Education Courses		6
	Hours	**14**
Spring		
STAT 2013 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
CS 1113	Computer Science I (Q)	3
General Education Courses		6
	Hours	**16**
Sophomore		
Fall		
GEOG 3333	Spatial Analysis (Q)	3
College and Elective courses		9
CS 2133 or MSIS 2203 or MSIS 3103	Computer Science II or Computer Programming for Business or End User Database Systems Design and Management	3
	Hours	**15**
Spring		
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
GEOG 4333 or GEOG 4263 or GEOL 4303 or GEOG 4353 or GEOG 4373 or GEOG 4663	Remote Sensing or Geospatial Applications for Unmanned Aerial Systems or Geophysical Field Methods or Geographic Information Systems: Socioeconomic Applications or Geographic Information Systems in Public Health or Web GIS: Trends, Principles, and Applications	3
GEOG 4383	Geospatial Programming with Python and AI Tools	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
GEOG 4323	Mapping in Modern Society	3
GEOG 4343 or GEOG 4263 or GEOG 4663 or GEOL 4303	Geographic Information Systems: Resource Management Applications or Geospatial Applications for Unmanned Aerial Systems or Web GIS: Trends, Principles, and Applications or Geophysical Field Methods	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
GEOG 4353 or GEOG 4263 or GEOL 4303 or GEOG 4333 or GEOG 4373 or GEOG 4663	Geographic Information Systems: Socioeconomic Applications or Geospatial Applications for Unmanned Aerial Systems or Geophysical Field Methods or Remote Sensing or Geographic Information Systems in Public Health or Web GIS: Trends, Principles, and Applications	3
GEOG 4943	Geospatial Information Science Internship/Research Capstone	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Geospatial Information Technologies (GSIT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sarah Mutschelknaus, 101B SSH, 405-744-8197

Minimum Grade and/or GPA for Minor Courses: 2.5 and no lower than a "C" in any course used toward the minor requirements.
Total Hours: 16

Code	Title	Hours
Course Requirements		
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
GEOG 4203	Fundamentals of Geographic Information Systems	3
Select three courses from the following:		9
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
GEOG 4333	Remote Sensing	
GEOG 4323	Mapping in Modern Society	
GEOG 4383	Introduction to GIS Programming	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4303	Applications of the Global Positioning System in Field Research	
GEOG 4313	Field Techniques and Geodata Collection	
Total Hours		**16**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Global Studies (GLST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sarah Mutschelknaus, 101B SSH, 405-744-8197.

Minimum grade and/or GPA: 2.5 and no longer than a "C" in any course used toward the minor requirements.
Total Hours: 17

Code	Title	Hours
Minor Requirements		
GEOG 2002	Global Sustainability (N)	2
or GLST 2002	Global Sustainability (N)	
GEOG 2103	Global Perspectives (IS)	3
or GLST 2103	Global Perspectives (IS)	
Select any four of the following optional courses:		12
GEOG 3053	Introduction to Central Asia Studies	
or GLST 3053	Introduction to Central Asia Studies	
GEOG 3713	Exploring North America and Diversity (DS)	
or GLST 3713	Exploring North America and Diversity (DS)	
GEOG 3723	Europe (IS)	
or GLST 3723	Europe (IS)	
GEOG 3733	Russia and Its Neighbors (IS)	
or GLST 3733	Russia and Its Neighbors (IS)	
GEOG 3743	Latin America (IS)	
or GLST 3743	Latin America (IS)	
GEOG 3753	Asia (IS)	
or GLST 3753	Asia (IS)	
GEOG 3763	Africa (IS)	
or GLST 3763	Africa (IS)	
GEOG 3783	The Middle East (IS)	
or GLST 3783	The Middle East (IS)	
GEOG 3793	Australia and the Pacific Realm (IS)	
or GLST 3793	Australia and the Pacific Realm (IS)	
One second year or higher foreign language may be substituted for one of the optional courses above.		
Total Hours		**17**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Global Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3
GEOG 2103	Global Perspectives (GS)	3
or GLST 2103	Global Perspectives (GS)	
GEOG 2002	Global Sustainability (N)	2
or GLST 2002	Global Sustainability (N)	
GLST 4513	Senior Capstone Experience	3
Skills Requirement		
Select one of the following or another course at the discretion of the advisor:		3
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4313	Field Techniques and Geodata Collection	
GEOG 3333	Spatial Analysis (Q)	
or, a second 2000-level foreign language course		
Regional Study		
Western region:		
Select one of the following:		3
GLST 3713	Exploring North America and Diversity (DS)	
or GEOG 3713	Exploring North America and Diversity (DS)	
GLST 3723	Europe (GS)	
or GEOG 3723	Europe (GS)	
GLST 3743	Latin America (GS)	
or GEOG 3743	Latin America (GS)	
GLST 3793	Australia and the Pacific Realm (GS)	
or GEOG 3793	Australia and the Pacific Realm (GS)	
Non-Western region:		
Select one of the following:		3
GLST 3053	Introduction to Central Asia Studies (GS)	
or GEOG 3053	Introduction to Central Asia Studies	
GLST 3733	Russia and Its Neighbors (GS)	
or GEOG 3733	Russia and Its Neighbors (GS)	
GLST 3753	Asia (GS)	
or GEOG 3753	Asia (GS)	
GLST 3763	Africa (GS)	
or GEOG 3763	Africa (GS)	

GLST 3783	The Middle East (GS)	
or GEOG 3783	The Middle East (GS)	
Additional GEOG/GLST courses		6
Thematic Courses		
Select five courses from one category (p. 1374)		15
Hours Subtotal		**44**
Electives		
Select 14 hours		14
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**14**
Total Hours		**120**

Categories

Culture, the Arts and Humanities

Code	Title	Hours
ANTH 3353	Cultural Anthropology (GS)	3
ANTH 3443	Peoples of Mesoamerica (GS)	3
ART 4703	Art East and West: Biases and Borrowings	3
ART 4713	The Visual Culture of the Islamic World (GH)	3
ART 4793	Architecture and Space in East Asia	3
ENGL 3463	History of International Film (GH)	3
ENGL 4350	Contemporary International Cinema	3
GEOG 3173	Cultural Geography (S)	3
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	3
GEOG 4143	Geography of Travel and Tourism	3
GWST 4950	Special Topics in Global Feminism	3
HIST 2133	African Diaspora History(DH)	3
PHIL 1213	Philosophies of Life (H)	3
PHIL 2513	Philosophy, Self, & Society (H)	3
PHIL 3613	Philosophy of Religion (H)	3
PHIL 3623	Philosophy of Race (DH)	3
PHIL 3943	Asian Philosophy (GH)	3
PHIL 4943	Indian Philosophy	3
PHIL 4953	East Asian Philosophy	3
REL 1103	Introduction to World Religions (GH)	3
REL 3713	Religion, Culture and Society	3
or SOC 3713	Religion, Culture and Society	
REL 4113	The World of Islam: Cultural Perspectives (GH)	3
REL 4213	Understanding Global Islam (GH)	3
REL 4223	Religion and Conflict in the Middle East (GH)	3
SOC 4653	Gender and the Middle East (GS)	3

Geopolitics and the Global Economy

Code	Title	Hours
ECON 1113	The Economics of Social Issues (S)	3
ECON 3613	International Economic Relations (GS)	3
ECON 4643	International Economic Development (GS)	3
EEE 4403	Social Entrepreneurship	3
ENPP 2143	Global Agricultural Biosecurity and Forensics	3
GEOG 3123	Urban Geography (S)	3
GEOG 3133	Political Geography (GS)	3
GEOG 3163	Economic Geography (S)	3
GEOG 3183	Transportation Geography	3
MKTG 3993	International Business (G)	3
POLS 2113	Introduction to Comparative Politics (GS)	3
POLS 2013	Introduction to International Relations (S)	3
POLS 3003	The Soviet Union: History, Society and Culture(GS)	3
POLS 3033	International Law	3
POLS 3123	Russian & Eurasian Politics (G)	3
POLS 3163	African Politics (G)	3
POLS 3193	Latin American Politics (GS)	3
POLS 3223	Asian Politics	3
POLS 3313	Middle Eastern Politics	3
POLS 3893	Terrorism & Counterterrorism	3
POLS 4013	American Foreign Policy	3
POLS 4043	Global Political Economy	3
POLS 4113	International Organization	3
POLS 4223	Social Movements	3

Sustainability

Code	Title	Hours
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
ENTO 2003	Insects and Society (N)	3
ENTO 2223	Insects in Global Public Health (N)	3
ENVR 1113	Elements of Environmental Science (N)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
GEOG 3023	Climatology (N)	3
GEOG 3153	Conservation of Natural Resources (S)	3
GEOG 4113	Environment and Development	3
GEOG 4003	Natural Hazards and Society	3
GEOG 4073	Climate Change: Past, Present, and Future	3
GEOG 4233	Human Dimensions of Global Environmental Change	3
HIST 4063	Historic Preservation	3
NREM 4043	Natural Resource Administration and Policy	3
NSCI 3543	Food and the Human Environment (GS)	3
SOC 4433	Environmental Sociology (S)	3
SOC 4533	World Population Problems	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.00 GPA in all GEOG and GLST courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2053 or STAT 2013 or STAT 2023	Elementary Statistics for the Social Sciences (Q) or Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3
1813 Second Semester Foreign Language		3

General Education courses		7
	Hours	**16**
Sophomore		
Fall		
GLST 2002	Global Sustainability (N)	2
2000-level Foreign Language		3
General Education courses		10
	Hours	**15**
Spring		
GLST 2103	Global Perspectives (GS)	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
GLST 4513	Senior Capstone Experience	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Global Studies: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher excluding MATH 1493))	3
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3
GLST 2103	Global Perspectives (GS)	3
or GEOG 2103	Global Perspectives (GS)	
GLST 2002	Global Sustainability (N)	2
or GEOG 2002	Global Sustainability (N)	
GLST 4513	Senior Capstone Experience	3
Skills Requirement (one of the following or another course at the discretion of the advisor):		*3*
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4313	Field Techniques and Geodata Collection	
GEOG 3333	Spatial Analysis (Q)	
or a second 2000-level course in ASL, CHIN, GREK, GRMN, JAPN, LATN, RUSS, or SPAN		
Regional Study (6 hours, select one from each category):		
Western Region (3 hours):		3
GLST 3713	Exploring North America and Diversity (DS)	
GEOG 3713	Exploring North America and Diversity (DS)	
GLST 3723	Europe (GS)	
GEOG 3723	Europe (GS)	
GLST 3743	Latin America (GS)	
GEOG 3743	Latin America (GS)	
GLST 3793	Australia and the Pacific Realm (GS)	
GEOG 3793	Australia and the Pacific Realm (GS)	
Non-Western Region (3 hours):		3
GLST 3053	Introduction to Central Asia Studies (GS)	
GEOG 3053	Introduction to Central Asia Studies	
GLST 3733	Russia and Its Neighbors (GS)	
GEOG 3733	Russia and Its Neighbors (GS)	
GLST 3753	Asia (GS)	
GEOG 3753	Asia (GS)	
GLST 3763	Africa (GS)	
GEOG 3763	Africa (GS)	
GLST 3783	The Middle East (GS)	
GEOG 3783	The Middle East (GS)	
Additional GEOG/GLST courses (3 hours)		*3*

Thematic courses (12 hours):		
Select four courses from one category:		12
Culture, the Arts, and Humanities:		
ANTH 3353	Cultural Anthropology (GS)	
ANTH 3443	Peoples of Mesoamerica (GS)	
ART 4703	Art East and West: Biases and Borrowings	
ART 4713	The Visual Culture of the Islamic World (GH)	
ART 4793	Architecture and Space in East Asia	
ENGL 3463	History of International Film (GH)	
ENGL 4350	Contemporary International Cinema	
GEOG 3173	Cultural Geography (S)	
GEOG 3213	Digital Worlds: Culture, Identity, and Community (H)	
GEOG 4143	Geography of Travel and Tourism	
GWST 4950	Special Topics in Global Feminism	
HIST 2133	African Diaspora History(DH)	
PHIL 1213	Philosophies of Life (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3943	Asian Philosophy (GH)	
PHIL 4943	Indian Philosophy	
PHIL 4953	East Asian Philosophy	
REL 1103	Introduction to World Religions (GH)	
REL 3713	Religion, Culture and Society	
REL 4113	The World of Islam: Cultural Perspectives (GH)	
REL 4213	Understanding Global Islam (GH)	
REL 4223	Religion and Conflict in the Middle East (GH)	
SOC 3713	Religion, Culture and Society	
SOC 4653	Gender and the Middle East (GS)	
Geopolitics and the Global Economy:		
ECON 1113	The Economics of Social Issues (S)	
ECON 3613	International Economic Relations (GS)	
ECON 4643	International Economic Development (GS)	
ENPP 2143	Global Agricultural Biosecurity and Forensics	
GEOG 3123	Urban Geography (S)	
GEOG 3133	Political Geography (GS)	
GEOG 3163	Economic Geography (S)	
GEOG 3183	Transportation Geography	
MKTG 3993	International Business (G)	
POLS 2013	Introduction to International Relations (S)	
POLS 2113	Introduction to Comparative Politics (GS)	
POLS 3003	The Soviet Union: History, Society and Culture(GS)	
POLS 3033	International Law	
POLS 3123	Russian & Eurasian Politics (G)	
POLS 3163	African Politics (G)	
POLS 3193	Latin American Politics (GS)	
POLS 3223	Asian Politics	
POLS 3313	Middle Eastern Politics	
POLS 3893	Terrorism & Counterterrorism	
POLS 4013	American Foreign Policy	
POLS 4043	Global Political Economy	
POLS 4113	International Organization	
POLS 4223	Social Movements	
Sustainability:		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
or BIOL 1114	Introductory Biology (LN)	
ENTO 2003	Insects and Society (N)	
ENTO 2223	Insects in Global Public Health (N)	
ENVR 1113	Elements of Environmental Science (N)	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 3023	Climatology (N)	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 4003	Natural Hazards and Society	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOG 4113	Environment and Development	
GEOG 4233	Human Dimensions of Global Environmental Change	
HIST 4063	Historic Preservation	
NREM 4043	Natural Resource Administration and Policy	
NSCI 3543	Food and the Human Environment (GS)	
SOC 4433	Environmental Sociology (S)	
SOC 4533	World Population Problems	
Business Essentials:		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
Select three hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**50**
Electives		
8 hours of Electives		8
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and one additional upper-division hour.		
Hours Subtotal		**8**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.00 GPA in all GEOG and GLST courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2053 or STAT 2013 or STAT 2023	Elementary Statistics for the Social Sciences (Q) or Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3

1813 Second Semester Foreign Language		3
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
GLST 2002	Global Sustainability (N)	2
2000-level Foreign Language		3
General Education courses		10
	Hours	**15**
Spring		
GLST 2103	Global Perspectives (GS)	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
GLST 4513	Senior Capstone Experience	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Global Studies: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
(See note 2.b.)		
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GLST 2103	Global Perspectives (GS)	3
or GEOG 2103	Global Perspectives (GS)	
GLST 2002	Global Sustainability (N)	2
or GEOG 2002	Global Sustainability (N)	
GLST 4513	Senior Capstone Experience	3
Skills Requirement (one of the following or another course at the discretion of the advisor):		*3*
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4313	Field Techniques and Geodata Collection	
GEOG 3333	Spatial Analysis (Q)	
or second 2000-level foreign language		
Regional Study (6 hours, select one from each category):		
Western Region (3 hours):		3
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GLST 3713	Exploring North America and Diversity (DS)	
GEOG 3713	Exploring North America and Diversity (DS)	
GLST 3723	Europe (GS)	
GEOG 3723	Europe (GS)	
GLST 3743	Latin America (GS)	
GEOG 3743	Latin America (GS)	
GLST 3793	Australia and the Pacific Realm (GS)	
GEOG 3793	Australia and the Pacific Realm (GS)	
Non-Western Region (3 hours):		3
GLST 3053	Introduction to Central Asia Studies (GS)	
GEOG 3053	Introduction to Central Asia Studies	
GLST 3733	Russia and Its Neighbors (GS)	
GEOG 3733	Russia and Its Neighbors (GS)	
GLST 3753	Asia (GS)	
GEOG 3753	Asia (GS)	
GLST 3763	Africa (GS)	
GEOG 3763	Africa (GS)	
GLST 3783	The Middle East (GS)	

GEOG 3783	The Middle East (GS)	
Additional GEOG/GLST courses (6 hours)		6
3 hours upper-division GEOG/GLST or foreign language		3
Law-related courses (15 hours):		15
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
ENGL 3323	Technical Writing	
LSB 3213	Legal and Regulatory Environment of Business	
LSB 4633	Legal Aspects of International Business Transactions (G)	
NREM 4043	Natural Resource Administration and Policy	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3983	Courts and Judicial Process (S)	
POLS 4363	Environmental Law And Policy	
POLS 4043	Global Political Economy	
PSYC 4143	Psychology and Law	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**44**
Electives		
14 hours of Electives		14
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and one additional upper-division hour.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**14**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.00 GPA in all GEOG and GLST courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2053 or STAT 2013 or STAT 2023	Elementary Statistics for the Social Sciences (Q) or Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3
1813 Second Semester Foreign Language		3
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
GLST 2002	Global Sustainability (N)	2
2000-level Foreign Language		3
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		7
	Hours	**15**
Spring		
GLST 2103	Global Perspectives (GS)	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
GLST 4513	Senior Capstone Experience	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Global Studies: Pre-Ministry, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one from the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one from the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
GEOG 1114	Introduction to Physical Geography (LN)	4
2 hours designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50.		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
GLST 2103	Global Perspectives (GS)	3
or GEOG 2103	Global Perspectives (GS)	
GLST 2002	Global Sustainability (N)	2
or GEOG 2002	Global Sustainability (N)	
GLST 4513	Senior Capstone Experience	3
Skills Requirement		
Select one of the following or another course at the discretion of the advisor):		3
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4313	Field Techniques and Geodata Collection	
GEOG 3333	Spatial Analysis (Q)	
or second 2000-level foreign language		
Regional Study (6 hours, select one from each category):		
Western Region (3 hours):		3
GLST 3713	Exploring North America and Diversity (DS)	
GEOG 3713	Exploring North America and Diversity (DS)	
GLST 3723	Europe (GS)	
GEOG 3723	Europe (GS)	
GLST 3743	Latin America (GS)	
GEOG 3743	Latin America (GS)	
GLST 3793	Australia and the Pacific Realm (GS)	
GEOG 3793	Australia and the Pacific Realm (GS)	
Non-Western Region (3 hours):		3
GLST 3053	Introduction to Central Asia Studies (GS)	
GEOG 3053	Introduction to Central Asia Studies	
GLST 3733	Russia and Its Neighbors (GS)	
GEOG 3733	Russia and Its Neighbors (GS)	
GLST 3753	Asia (GS)	
GEOG 3753	Asia (GS)	
GLST 3763	Africa (GS)	
GEOG 3763	Africa (GS)	
GLST 3783	The Middle East (GS)	
GEOG 3783	The Middle East (GS)	

Additional GEOG/GLST courses		
Select 6 hours		6
Upper-division GEOG/GLST or foreign language		
Select 3 hours		3
Pre-Ministry-related courses (15 hours):		
9 hours upper-division REL courses, with at least 3 hours from courses with a non-Western emphasis		9
6 hours Culture and Society courses - choose any 2 non-GEOG courses:		6
AMST 3253	Globalization and American Culture (H)	
AMST 2423	American Popular Culture (H)	
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
CPSY 3003	Introduction to Counseling and Related Professions	
CPSY 4443	Cultural Diversity in Professional Life (D)	
HIST 3363	Popular Religion in the West, 1300-1700 (H)	
HIST 3593	Introduction to Museum and Cultural Studies (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 3613	Philosophy of Religion (H)	
REL 1103	Introduction to World Religions (GH)	
REL 3713	Religion, Culture and Society	
SOC 3713	Religion, Culture and Society	
SOC 4043	Gender and Work (DS)	
SOC 4533	World Population Problems	
SOC 4653	Gender and the Middle East (GS)	
SOC 4383	Social Stratification (S)	
SOC 4723	Sociology of Families (S)	
Hours Subtotal		**44**
Electives		
14 hours of Electives		14
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and one additional upper-division hour.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**14**
Total Hours		**120**

[1]

College and Department Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.00 GPA in all GEOG and GLST courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
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   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council

on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOG 1113	Introduction to Cultural Geography (GS)	3
GEOG 1114	Introduction to Physical Geography (LN)	4
1713 First Semester Foreign Language		3
General Education courses		4
	Hours	**14**
Spring		
STAT 2053 or STAT 2013 or STAT 2023	Elementary Statistics for the Social Sciences (Q) or Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
GEOG 1713	Regions & Nations in Global Context (GS)	3
1813 Second Semester Foreign Language		3
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
GLST 2002	Global Sustainability (N)	2
2000-level Foreign Language		3
General Education courses		10
	Hours	**15**
Spring		
GLST 2103	Global Perspectives (GS)	3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
GLST 4513	Senior Capstone Experience	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Boone Pickens School of Geology

Earth is the residence of all life including humanity; therefore, it is essential to develop a better understanding of its composition and processes. Earth is an outdoor laboratory filled with opportunities to observe geologic processes in action. By applying knowledge of forces that shape Earth, geoscientists seek to reconstruct the past and anticipate the future. Geoscientists provide information to society for solving problems and establishing policies for resource management, environmental protection, public health, safety, and welfare. The Boone Pickens School of Geology maintains three undergraduate degree programs, (1) **Geology**, (2) **Environmental Geoscience**, and (3) **Geophysics**. We offer research opportunities in cutting-edge facilities, scholarships to support student success, and can guide you toward a career that matches your passion and curiosity.

Geology

Geology addresses how Earth's history helps predict future events, how the evolution of life is recorded in rocks and sediments and how erosion and uplift shape the Earth. Human activities, predominantly on or near the surface, have utilized rocks and rock products, mainly petroleum and metals, to contribute to the quality of life. Because the Earth is dynamic —the land surface is constantly changing—knowledge of earthquakes, volcanoes, plate tectonics, floods, and landslides, is critical to minimize human suffering and economic loss. Within geology, specialties such as petroleum geology, groundwater geology (hydrogeology), geomorphology (study of surface processes), structural geology, and paleontology (study of fossils), allow geoscientists to develop exciting careers focusing on the sub-disciplines they love.

Environmental Geoscience

Environmental Geoscience is the study of human interactions with the natural environment, and alternatively, how the natural environment impacts our presence on Earth. Environmental geoscientists investigate and diagnose issues occurring in the natural environment. In this way, environmental geoscientists are like medical doctors for the Earth! Students within this program will receive an interdisciplinary STEM degree to have the breadth of knowledge needed to serve local, regional, and international communities.

Geophysics

Geophysics is a discovery science of the Earth and other planets using state-of-the-art technology that integrates geology, mathematics, physics, and computer modeling. Geophysicists explore the Earth's natural resources such as oil, gas, minerals, and groundwater, and detect earthquakes, cavities, and contamination hazards aiding societal and environmental sustainability. A Bachelor of Science in geophysics prepares students for graduate school as well as prestigious careers in the environmental, energy, and regulatory industries.

Research, Scholarships, and Careers

Geology, Environmental Geoscience, and Geophysics majors are provided with a quality education designed to develop leadership skills and enhance employment opportunities. Along with these undergraduate programs, the Boone Pickens School of Geology offers an Accelerated M.S., M.S., and Ph.D. programs. Students at both the graduate and undergraduate levels have research opportunities and can participate in various campus and community outreach events. Research areas for the faculty of the Boone Pickens School of Geology include plate tectonics, conventional and unconventional energy resources, environmental and engineering geoscience, carbon sequestration, paleoclimatology, and satellite remote sensing. In these areas, the school has already established a sound infrastructure—appropriate faculty appointments, advanced laboratories and technologies, and a high volume of scholarly productivity. Full-time Geology, Environmental Geoscience, and Geophysics undergraduates are eligible for departmental scholarships based on academic achievement and financial need. Teaching assistantships, research assistantships, and fellowships are available for qualifying geology graduate students.

Geologists, Environmental Geoscience, and Geophysicists are employed extensively in applied and pure research topics as well as in teaching. Applied research includes the exploration for, and development of, oil and gas fields, metallic and nonmetallic mineral deposits, and reservoirs of groundwater. Geoscientists are well prepared to pursue and direct environmental and energy studies. Careers in research may be found with private employers, government agencies, national laboratories, or universities. Teaching positions in Geology, Environmental Geoscience, and Geophysics are available at all levels, beginning with secondary education.

Careers in the geosciences take you to the field with high-tech equipment, into labs for cutting-edge research, and even around the globe working for energy companies, environmental agencies, and space exploration. Join us where curiosity becomes a career, and your passion for the planet helps shape a more sustainable future.

Courses

GEOL 1003 The Story of Dinosaurs (N)
Description: This course will explore the validity of arguments and/or conclusion in dinosaur research through evaluating the scientific evidence. In this course, students will read, experiment, and evaluate scientific literature surrounding dinosaurs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 1013 Exploring Earth: An Introduction to Geology (LN)
Description: An introductory course for non-science majors which will investigate how chemical, physical and biological processes interact to shape and regulate the Earth's environment. Will build your understanding of how each part of the Earth system – the ocean, atmosphere and interior – work and interact over time.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1014 Geology and Human Affairs (LN)
Description: The influence of geology and related earth sciences on the human environment. Energy and material resources, beneficial and hazardous natural processes, and the planetary and biological evolution of earth. Lab investigations environmentally oriented. Lab fees required for online section.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1022 Climate Change and Humanity (N)
Description: Focus on the development of scientific inquiry and critical thinking skills needed to evaluate complex relationships among climate, energy production, and the environment. Students will explore causes and consequences of climate change and consider climate change science from alternative perspectives. Same course as GEOG 1022.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 1114 Physical Geology (LN)
Prerequisites: MATH 1483 or MATH 1513 or higher; or an acceptable math placement score or AP credit (see http://placement.okstate.edu).
Description: Composition and structure of the earth and the modification of its surface by internal and external processes. Mineral resources, sources of energy, and environmental aspects of geology. Recommended introductory course for science majors. Field trip required.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1214 Introductory Geological Processes (LN)
Description: This course is intended to introduce geoscience students to geological processes and foundational concepts within the geosciences, primarily through field-based instruction and exercises, as well as introducing students to the geology of Oklahoma. Field trips required.
Credit hours: 4
Contact hours: Lecture: 1 Contact: 4 Other: 3
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

GEOL 1224 Evolution of the Earth (LN)
Prerequisites: High school biology and chemistry recommended.
Description: A survey of the physical and biological history of the Earth from the coalescence of the solar system to the present. Field trips required.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: Geology Field Trip fee of $25 applies.

GEOL 2013 Geology of the National Parks (N)
Description: The geologic characteristics of national parks and scenic regions in North America and throughout the world. Intended for non-majors. Previously offered as GEOL 3043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2030 Geologic Field Experience
Description: One to three weeks of required field study at sites of geological interest and significance. Field trip charges apply. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 2043 Water on Earth
Description: The science of water, including surface water, ground water, water quality, pollution, and legal issues. Interrelations between the sciences and humanities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 2103 Fundamentals of Geophysics
Prerequisites: Minimum grade of "C" in: (GEOL 1014 or GEOL 1114 or GEOL 1214) and (PHYS 1114 or PHYS 2014 or acceptable AP credit).
Description: Course will introduce students to the basic concepts of geophysics. Students will gain theoretical and field experience with multiple geophysical techniques, such as: gravity, magnetic, seismic reflection/refraction, electrical resistivity, induced polarization, self-potential, ground penetrating radar and radiometrics and their applications in oil and gas, minerals, groundwater, and the environment. Field trip required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 2254 Practical Mineralogy
Prerequisites: GEOL 1014 or GEOL 1114 and CHEM 1314 or CHEM 1414 completed with a grade of "C" or higher.
Description: Hand-specimen identification of minerals using physical and chemical properties. Introductory optical identification of common rock forming minerals. Society's utilization of mineral resources. Field trips required. May not be used for degree credit with GEOL 2464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2364 Igneous and Metamorphic Petrology
Prerequisites: GEOL 2254 completed with a grade of "C" or higher.
Description: Origin, occurrence and classification of igneous and metamorphic rocks; hand-specimen and thin section identification. Optional field trip. May not be used for degree credit with GEOL 2464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2403 Chemistry of Earth Systems
Prerequisites: Minimum grade of "C" in (GEOL 1014 or GEOL 1114 or GEOL 1214) and (CHEM 1314 or CHEM 1414).
Description: This course will teach the basics of geochemistry as applied to Earth Systems, including topics and concerns related to the atmosphere, geosphere, biosphere, hydrosphere, and anthroposphere. Basic lab and field skills will also be introduced, including fundamentals of environmental measurement practices, geochemical instrumentation, and basic water and sediment sampling techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2443 Environmental Geology and Human Health (N)
Description: This course explores the connections between human health and environmental geological processes. Key concepts in geology are introduced as well as the pathways through which natural systems affect human health. Topics of interest will include exposures to asbestos, dust and aerosols, coal, and mercury. Course recommended for anyone with an interest in environmental or public health or for those just curious to know more about how the environment affects our health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2464 Rocks and Minerals
Prerequisites: Minimum grade of "C" in (GEOL 1014 or GEOL 1114 or GEOL 1214) and (CHEM 1314 or CHEM 1414 or acceptable AP credit).
Description: Origin, occurrence and classification of igneous, sedimentary and metamorphic rocks and minerals; hand-specimen and thin section identification, including optical microscopy. Field trip required. May not be used for degree credit with GEOL 2254 and GEOL 2364.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 2773 Introduction to Planetary Geology (N)
Description: Introduction to the geology of terrestrial planets and moons, exploring volcanism, plate tectonics, atmospheres, and planetary formation, as well as how meteorites and asteroids give insight into the formation of planetary systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 2890 Honors Experience in Geology
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Geology to partner concurrently with designated lower-division GEOL course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Honors Credit

GEOL 2990 Special Topics in Earth Science
Description: Selected topics in Geoscience presented in lecture or seminar format. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 3014 Structural Geology
Prerequisites: Minimum grade of "C" in: GEOL 2464 and (PHYS 1114 or PHYS 2014 or acceptable AP credit).
Description: Behavior of earth materials during various deformational processes and analysis of the resulting structural features such as folds, faults and fractures.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: Geology Field Trip fee of $40 applies.

GEOL 3034 Principles of Stratigraphy and Sedimentology
Prerequisites: GEOL 1224 and GEOL 2464 each with a grade of "C" or higher.
Description: Principles of stratigraphy and their applications. Survey of sedimentary rock types, principles of description and classification, origin of sedimentary deposits, analysis of stratigraphic sequences. Topics include depositional systems; litho- and biostratigraphy; geochronology and chronostratigraphy; magnetic, seismic, and sequence stratigraphy; tectonic vs. climatic controls. Field work required. Previously offered as GEOL 3033.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: Geology Field Trip fee of $85 applies.

GEOL 3073 Geomorphology
Prerequisites: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOG 1014.
Description: This course will outline key concepts in geomorphology including how different geological processes have shaped and are shaping the surface of the Earth. Summary of different geomorphological research methods. Discussion on how exogenic processes such water, glacier and wind weathering produce different landscapes. Discussion on how endogenic processes such as volcanism and tectonism contributes to geomorphological changes. Discussion of how geomorphological changes affect the climate. May not be used for degree credit with GEOL 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 3103 Paleontology
Description: Basic principles of paleontology involving invertebrates, vertebrates and plants. Course will explore the mechanisms and manifestations of evolution in the fossil record, learn key aspects of fossilized organism identification, and assess paleontology interpretations through hands-on experiential learning exercises. Field trips required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 3413 Petroleum Geology for Engineers
Prerequisites: CHEM 1314 or CHEM 1414 with a grade of “C” or better.
Description: Examination of the fundamental concepts of petroleum geology with an emphasis on applications to drilling and reservoir engineering. Topics include reservoir architecture, traps and seals, the subsurface environment, wireline logs, geophysics and depositional systems. Field trip required. No degree credit for geology majors.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology
Additional Fees: GEOL Course Field Trip fee of $30 applies.

GEOL 3503 Environmental Geology (N)
Prerequisites: GEOL 1014 or GEOL 1114 or GEOL 1214 or consent of instructor.
Description: Application of geologic principles to environmental issues, including human use of the surface and subsurface of the earth and human interaction with extreme natural events such as earthquakes, floods and landslides. Field trip is required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning
Additional Fees: Geology Field Trip fee of $38 applies.

GEOL 3513 Earthquakes, Volcanoes, and Disasters (N)
Description: An examination of the causes and effects of natural disasters related to earthquakes, volcanic activity, severe weather, flooding and other natural disasters. The course also examines the effects of these natural hazards on societies and approaches to mitigate the associated risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 3546 Field Geology
Prerequisites: Minimum grade of "C" in GEOL 3014 and GEOL 3034.
Description: Five weeks of field methods in geology. Required of all geology majors. Transportation and room and board fees required.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Geology

GEOL 3890 Advanced Honors Experience in Geology
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Geology to partner concurrently with designated upper-division GEOL course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 8 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Honors Credit

GEOL 4023 Petroleum Geology
Prerequisites: GEOL 3014 and GEOL 3034.
Description: Origin, migration and accumulation of petroleum, requirements for source rock, reservoir rock and traps. Structure and stratigraphy of selected oil fields. Field trips required. May not be used for degree credit with GEOL 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4030 Geologic Field Investigation
Prerequisites: GEOL 1013, GEOL 1014, GEOL 1114 or GEOL 1224.
Description: One to three weeks of required field study at sites of geological interest and significance. Field trip charges apply. Does not substitute for GEOL 3546. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4103 Introduction to Geophysical Exploration
Prerequisites: MATH 2153 and a "C" or better in PHYS 1214 or PHYS 2114 or acceptable AP credit.
Description: An overview of geophysical methods and their applications to exploration, environmental and engineering problems. Seismic reflection and refraction methods, gravity, magnetic, resistivity and electromagnetic methods. A field trip required. May not be used for degree credit with GEOL 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4113 Seismic Interpretation
Prerequisites: Minimum grade of "C" in (GEOL 2103 or GEOL 4443) and MATH 2153 and (PHYS 1214 or PHYS 2114).
Description: Examination of the reflection seismic interpretation methods with emphasis on the oil and gas industry. Both structural and stratigraphic methods. Hands-on interpretation using a standard industry software package. May not be used for degree credit with GEOL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4213 Plate Tectonics
Prerequisites: GEOL 3014 or concurrent enrollment.
Description: Earth's evolution within the framework of plate tectonics. Examination of structural associations in relation to tectonic plate boundaries. Mechanisms for plate tectonics and implication for resources and the environment. May not be used for degree credit with GEOL 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4300 Geology Colloquium
Prerequisites: Geology majors only.
Description: Discussion of selected topics in the geological sciences with emphasis on professional presentation practices. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4303 Geophysical Field Methods
Prerequisites: GEOL 4103.
Description: Hands-on field investigations using the different geophysical surveying methods including electrical resistivity/induced polarization, self potential, electromagnetic, ground penetrating radar, gravity, magnetic, and seismic reflection and refraction. Instrumentation, field data acquisition, and interpretation will be emphasized. Several field trips and field projects required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4313 Introduction to Well Log Analysis
Prerequisites: GEOL 3034 with a grade of C or better.
Description: Introduction for undergraduate Geology majors to basic properties of wireline well logs that are useful for those interested in the petroleum industry, subsurface environmental issues, ground water and geothermal energy. This course covers use of well logs to identify lithology, influence of borehole fluids, porosity and permeability on well log properties. Some exercises involve concurrent interpretation of well logs and core samples. Course includes lectures, in-class exercises, homework, and exams. No credit for students who have completed GEOL 4323 or GEOL 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4323 Applied Well Log Analysis for Engineers
Prerequisites: GEOL 3413 with a grade of "C" or higher.
Description: This is a core course for the Minor in Petroleum Engineering. Course material builds on information to prerequisite course Geology 3413. This course covers geologic interpretation of reservoir characteristics based on a variety of well logs; quantitative determination of porosity and permeability, reservoir fluids and how they influence well log properties, calculation of water saturation, introduction to unconventional reservoirs, drilling and logging in lateral holes. May not be used for degree credit with GEOL 4313 or GEOL 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4343 Advanced Petrophysics
Prerequisites: Minimum grade of "C" in PHYS 2014.
Description: Provides theoretical background on physical, chemical, and electrical principles involved in routine core analysis (RCA) and special core analysis (SCAL) generic data acquisition, as well as practical experience in applying computational methods to infer petrophysical properties of rocks from RCA and SCAL data. May not be used for degree credit with GEOL 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4403 Environmental Geochemistry
Prerequisites: GEOL 2403 or (GEOL 1014 or GEOL 1114 and CHEM 1515 or concurrent enrollment).
Description: This course is designed to help students comprehend the major chemical components of natural environments and to apply fundamental principles to understand the main controls on the chemistry of pristine and polluted soil, surface, and ground water environments. May not be used for degree credit with GEOL 5403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4423 Groundwater Geochemistry
Prerequisites: Minimum grade of "C" in CHEM 1314 and MATH 2144.
Description: Provides, theoretical background to apply geochemical principles to understand and solve groundwater quality problems, as well as practical experience in applying computational methodologies and tools to predict the response of groundwater systems to natural and anthropogenic disturbances. May not be used for degree credit with GEOL 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4433 Applied Geostatistics
Prerequisites: MATH 2144 with a grade of "C" or higher.
Description: Application of geostatistical principles and tools to solve geology problems associated with the uncertainty and spatial variability of geological data. The focus is on petroleum and hydrological systems. May not be used for degree credit with GEOL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4443 Environmental Geophysics
Prerequisites: A minimum grade of "C" in MATH 2144 and (PHYS 1114 or PHYS 2014 or GEOL 2103).
Description: This course addresses environmental and engineering geophysical applications to geological characterization in (1) groundwater, aquifer delineation and contaminant migration, (2) slope stability and engineering site characterization, (3) detection of abandoned landfills, underground storage tanks, UXO, (4) earthquake, sinkholes, and land subsidence hazards, and/or (5) non-invasive archeological site assessment. Students will gain hands-on experiences in both collecting geophysical data in the field and processing real field data in the lab. Field trips required. May not be used for degree credit with GEOL 5443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4453 Hydrogeology
Description: The water cycle and ground-water systems as well as general problems related to ground-water occurrence, quantity, quality and pollution. Field trip required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4463 Physical Hydrogeology
Prerequisites: Completion of PHYS 1114 or PHYS 2014; GEOL 3503 recommended.
Description: Physical ground-water systems. Realistic problems to acquaint students with ground-water occurrence and movement. Geologic, geophysical, hydraulic testing and modeling techniques used to define an actual ground-water system. Ground-water regulations. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $100 applies.

GEOL 4503 Introduction to Oceanography (N)
Prerequisites: College-level chemistry recommended.
Description: Oceanography is an interdisciplinary field incorporating geology, physics, chemistry, and biology. This class will introduce students to oceanic and sedimentary processes, including plate tectonics, oceanic circulation, seawater chemistry, beaches and coastlines, benthic/pelagic sea life, and environmental concerns. Students will also discuss social, political, and economic topics that relate to the ocean.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 4513 Marine Geology
Prerequisites: Minimum grade of "C" in: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOL 4503.
Description: Comprehensive examination of the geology of the ocean basins. Topics include techniques of data collection and interpretation; shoreline, shelf and deep ocean processes; physical oceanography; origin and distribution of marine sediments; paleoceanography; marine mineral resources; marine tectonics and ocean history. May not be used for degree credit with GEOL 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4543 Introduction to Exploration Seismology
Prerequisites: Minimum grade of "C" or better in (GEOL 2103 or GEOL 4443) and MATH 2153 and (PHYS 1214 or PHYS 2114).
Description: Introduction to theory, techniques, and application of seismic to field of hydrocarbon, groundwater, and minerals exploration. Review of fundamentals of wave propagation, historical development of the science, and current literature on application and instrumentation. May not be used for degree credit with GEOL 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4573 Marine Biogeochemical Cycles
Prerequisites: GEOL 3034 with a grade of "C" or better and GEOL 4403 or concurrent enrollment.
Description: Analysis of the interactions between geological processes, biological activity, and chemical cycling for a range of elements. Limited discussion of atmospheric, terrestrial, and freshwater systems as they impact the oceans will also be discussed. Includes discussions of changes in elemental cycles through Earth's history and comparison to present-day patterns. May not be used for degree credit with GEOL 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4583 Environmental Data Analytics
Prerequisites: Minimum grade of "C" in MATH 2144.
Description: Provides theoretical background and practical experience in extracting meaning from complex and heterogeneous environmental data sources to understand and manage the natural environment (geosphere, hydrosphere, biosphere, and atmosphere). May not be used for degree credit with GEOL 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4613 Magmatism and Metamorphism
Prerequisites: GEOL 2464.
Description: Exploration of the processes and environments in which magmatic and metamorphic rocks form, using aspects of mineralogy, petrology, geochemistry and plate tectonics. Will include lab and field examination of rocks, use of phase diagrams, thermodynamics and geochemical data. Field Trip required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4643 Seismic Data Processing
Prerequisites: MATH 2144 and (PHYS 1114 or PHYS 2014) strongly recommended.
Description: Theoretical background and practical training in the processing of seismic reflection and refraction data for petroleum, environmental, and engineering applications. Hands-on digital data processing using standard industry software. Topics to be covered include digital filtering, statics corrections, velocity analysis, deconvolution, stacking, and migration. May not be used for degree credit with GEOL 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4673 Critical Earth Materials
Prerequisites: GEOL 2464.
Description: The distribution, geological setting and genesis of metalliferous and non-metalliferous mineral deposits of economic value. Factors controlling the formation of these deposits and the linkages with many other geologic processes covered in other courses are explored. Discussion of geopolitical considerations to the exploration and production of critical earth materials.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 4753 Volcanology
Prerequisites: GEOL 2464 completed with a grade of "C" or higher.
Description: Examination of volcanic processes, products, and structures on Earth and other terrestrial bodies. Optional field trip. May not be used for degree credit with GEOL 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 4773 Planetary Geology (N)
Prerequisites: GEOL 1114 (required) and GEOL 3073 (recommended).
Description: Geology of planets and planetary bodies, including geomorphology, tectonics, geochemistry, and geophysics; perspectives on exploration; and life in the universe.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology
General Education and other Course Attributes: Natural Science Reasoning

GEOL 4981 Geoscience Internship
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Geoscience-related professional work setting. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4990 Special Problems in Earth Science
Prerequisites: Permission of instructor.
Description: Individually designed study projects involving assigned reading, library work, field work, laboratory work or a combination of these. Field trips may be required. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Geology

GEOL 4993 Senior Honors Thesis
Prerequisites: Permission of instructor.
Description: A guided reading and research program ending with a thesis under direction of a senior faculty member, with a second faculty reader and oral examination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Geology

GEOL 5000 Master's Thesis
Prerequisites: Approval of graduate committee.
Description: Work toward master's thesis in geology. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5023 Petroleum Geology
Prerequisites: GEOL 3014 and GEOL 3034.
Description: Origin, migration and accumulation of petroleum, requirements for source rock, reservoir rock and traps. Structure and stratigraphy of selected oil fields. Field trips required. May not be used for degree credit with GEOL 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5030 Geologic Field Investigation
Description: One to three weeks of required field study at sites of geological interest and significance. Emphasis will be placed on applicability to graduate research. Field trip charges apply. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5073 Geomorphology
Description: This course will outline key concepts in geomorphology including how different geological processes have shaped and are shaping the surface of the Earth. Summary of different geomorphological research methods. Discussion on how exogenic processes such as water, glacier and wind weathering produce different landscapes. Discussion on how endogenic processes such as volcanism and tectonism contributes to geomorphological changes. Discussion of how geomorphological changes affect the climate. No credit for students with credit in GEOL 3073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5093 Quaternary Geology and Geochronology
Prerequisites: GEOL 3034; MATH 1715 or equivalent; PHYS 2014 and PHYS 2114 or equivalent. All with a grade of "C" or higher.
Description: Examination of the causes and effects of climate change during the ice ages. Survey of dating methods applicable to the Quaternary, including radiocarbon and optical luminescence. Topics include the use of oxygen isotope proxy records, paleomagnetism, cosmogenic nuclides, isostasy and post-glacial rebound, causes of sea-level change, and ice age history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5100 Problems in Hydrogeology
Prerequisites: GEOL 4453.
Description: Advanced problems in hydrogeology with emphasis on quantitative methods. Field trips may be required. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5103 Introduction to Geophysical Exploration
Prerequisites: MATH 2153 and a "C" or better in PHYS 1214 or PHYS 2114 or acceptable AP credit.
Description: An overview of geophysical methods and their applications to exploration, environmental and engineering problems. Seismic reflection and refraction methods, gravity, magnetic, resistivity and electromagnetic methods. Field trip required. May not be used for degree credit with GEOL 4103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5133 Structural Styles in Oil and Gas Exploration
Prerequisites: GEOL 3014 with a grade of "C" or higher.
Description: The theoretical, experimental and descriptive approach to structural styles formed by different tectonic stresses (i.e. extensional, contractional, strike-slip and salt tectonics) and their importance in oil and gas exploration. Course previously offered as GEOL 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5143 Geological Remote Sensing
Prerequisites: GEOL 1013 or GEOL 1114 and PHYS 1114 or PHYS 2014 each with a minimum grade of "C".
Description: Many applications of remote sensing exist for geological and environmental issues, and this course introduces the techniques and processes including digital signal processing, statistical data extraction, image enhancement and classification. Students will experiment with different techniques and formulate a research project that can be answered using the techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5183 Paleontology and Paleoceanographic Reconstruction
Prerequisites: Graduate standing or permission of instructor.
Description: This course examines invertebrates, the process of fossilization, taphonomy, and fossil uses in paleontologic reconstructions and biostratigraphy. Students are instructed and expected to complete various sample preparation techniques used in fossil examination. This course has a lecture and lab component. Students in this course should have a basic understanding of biology and evolution. Major ideas and background information will be provided in this course so anyone interested is welcome.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5213 Seismic Interpretation
Description: Examination of reflection seismic interpretation methods with emphasis on the oil and gas industry. Both structural and stratigraphic methods. Hands-on interpretation using a standard industry software package. Previously offered as GEOL 4203. No credit for students with credit in GEOL 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5223 Advanced Methods in Structural Geology
Prerequisites: GEOL 3014.
Description: Techniques in modern structural geology are changing fast. Students in this course will learn to use cutting-edge techniques in structural analysis to solve problems in the geosciences. At the end of this course, you will have collected structural data using a digital data system, analyzed geodetic data to calculate strain, use data collected from uncrewed aerial vehicles to create digital elevation models and characterize fractures, and conduct traditional fracture analyses from outcrop data. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5233 Trace Element Geochemistry
Prerequisites: One year of chemistry and GEOL 4403 or equivalent and GEOL 3034 or equivalent.
Description: Examination of the behavior of various trace elements in aqueous and sedimentary environments. Availability and mobility of trace elements, characterization of geochemical environments, and application to geologic problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5243 Research Methods and Techniques in Geosciences
Description: Application of the scientific method to geosciences research; introduction to library and internet searches; writing competitive research proposals; managing research activities; and disseminating research results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5253 Petrology and Diagenesis of Clastic Rocks
Prerequisites: GEOL 3034.
Description: Examination of petrology and depositional facies of sandstones and shales. Identification of detrital and diagenetic constituents and determination of paragenetic sequence of diagenetic events. The effect of burial and thermal history on reservoir quality. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5273 Depositional Systems
Prerequisites: GEOL 3034, GEOL 3546.
Description: Examination of the processes within depositional environments and the facies they form. Focus on the environmental interpretation of rocks, cores and seismic profiles based on their composition, texture, character, stacking pattern and sedimentary structures. Emphasis on clastic systems. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5283 Subsurface Geologic Methods
Prerequisites: GEOL 3014, GEOL 3034.
Description: Use of subsurface geologic information from cores and well logs to prepare maps and identify oil and gas prospects. Field trips required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5300 Geology Colloquium
Prerequisites: Graduate standing.
Description: Discussion of selected topics in the geological sciences with emphasis on professional presentation practices. Offered for fixed 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5313 Plate Tectonics
Prerequisites: GEOL 3014 with a grade of "C" or higher.
Description: Study of the Earth's past and present tectonic environments within the framework of plate tectonics. Systematic examination of structural associations in relation to their spatial distributions around and within plate boundaries. Outlining the temporal evolution of the crust. Discussion on mechanisms for plate tectonics. Implication of plate tectonics in terms of resources and the environment. May not be used for degree credit with GEOL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5333 Applied Geostatistics
Prerequisites: MATH 2144 with a grade of "C" or higher.
Description: Application of geostatistical principles and tools to solve geology problems associated with the uncertainty and spatial variability of geological data. The focus is on petroleum and hydrological systems. May not be used for degree credit with GEOL 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5343 Advanced Petrophysics
Prerequisites: Minimum grade of "C" in PHYS 2014.
Description: Provides theoretical background on physical, chemical, and electrical principles involved in routine core analysis (RCA) and special core analysis (SCAL) generic data acquisition, as well as practical experience in applying computational methods to infer petrophysical properties of rocks from RCA and SCAL data. May not be used for degree credit with GEOL 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5353 Advanced Well Log Analysis
Prerequisites: GEOL 3034 or consent of instructor.
Description: This course is for geology graduate students interested in the petroleum and environmental industries, geothermal energy and evaluating the subsurface environment using wireline logs. This course will focus on the geologic interpretation of a variety of well logs, as well as quantitative methods to determine porosity and permeability in aquifers and reservoirs, how reservoir fluids influence well log properties, calculating water saturation, and an introduction to unconventional reservoirs. Graduate students are given advanced homework exercises including interpretation of structure, selection of best logging technique, mineral identification, and fractured rock identification. Some exercises involve concurrent interpretation of well logs and core samples. No credit for students with credit in GEOL 4313 or GEOL 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5363 Carbonate Depositional Systems
Prerequisites: GEOL 3034 with a grade of "C" or higher.
Description: Survey course of the main types of carbonate sediments and depositional environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Consummable Material fee of $35 and Geology Field Trip fee of $242 apply.

GEOL 5383 Sequence Stratigraphy
Prerequisites: GEOL 3034.
Description: Principles of sequence stratigraphy including carbonate and siliciclastic dominated intracratonic basins. Integration of surface and subsurface data in projects. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $90 applies.

GEOL 5393 Stratigraphy of the Midcontinent
Prerequisites: GEOL 3034 with a grade of "C" or higher.
Description: This course will examine Paleozoic stratigraphy of the North American Midcontinent consisting of Texas, Oklahoma, Kansas, Nebraska, Missouri, and northwestern Arkansas. The course will consist of lectures, student presentations, and extensive field work that will serve to familiarize the students with the surface and subsurface relationships of geologic formation and their potential for commercial exploitation for oil and gas resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5403 Environmental Geochemistry
Prerequisites: Graduate Standing required.
Description: This course is designed to help students comprehend the major chemical components of natural environments and to apply fundamental principles to understand the main controls on the chemistry of pristine and polluted soil, surface, and ground water environments. May not be used for degree credit with GEOL 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5413 Applied Petroleum Geology for Engineers
Description: This course introduces graduate level engineering students to the fundamental concepts of geologic science with emphasis on application to reservoir evaluation, drilling and production of hydrocarbon accumulation. Weekly labs provide hands-on exercises of techniques used for reservoir evaluation. A term project allows graduate students to synthesize concepts from lectures and techniques learned in lab, to evaluate the economic potential of an oil field and prepare a professional presentation. May not be used for degree credit with GEOL 3413.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5423 Groundwater Geochemistry
Prerequisites: CHEM 1314 and MATH 2144.
Description: Provides, theoretical background to apply geochemical principles to understand and solve groundwater quality problems, as well as practical experience in applying computational methodologies and tools to predict the response of groundwater systems to natural and anthropogenic disturbances. May not be used for degree credit with GEOL 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5433 Isotope Geochemistry
Description: Introduction to the basic principles of stable isotope geochemistry. Study of the production, distribution, and use of naturally occurring and anthropogenically introduced stable isotopes in the earth's near surface environment with applications to hydrology, biogeochemistry, global change and petroleum systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5443 Environmental Geophysics
Description: This course addresses environmental and engineering geophysical applications to geological characterization in (1`) groundwater, aquifer delineation and contaminant migration, (2) slope stability and engineering site characterization, (3) detection of abandoned landfills, underground storage tanks, UXO, (4) earthquake, sinkholes, and land subsidence hazards, and/or (5) non-invasive archeological site assessment. Students will gain hands-on experiences in both collecting geophysical data in the field and processing real field data in the lab. Field trips required. May not be used for degree credit with GEOL 4443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5453 Groundwater Modeling
Prerequisites: GEOL 4453 or equivalent, MATH 2144, MATH 2153 each with a grade of "C" or higher.
Description: Modeling ground water systems. Realistic problems to acquaint students with the movement of geological fluids. Developing models of fluid movement through the subsurface using geological and geophysical data. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5463 Physical Hydrogeology
Prerequisites: GEOL 4453 or equivalent with a grade of C or better; PHYS 2114 with a grade of C or better.
Description: Physical ground-water systems. Realistic problems to acquaint students with ground-water occurrence and movement. Geologic, geophysical, hydraulic testing and modeling techniques used to define an actual ground-water system. Ground-water regulations. Field trips required. May not be used for degree credit with GEOL 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5483 Petroleum Water Management
Prerequisites: Minimum grade of "C" in GEOL 4453 and MATH 2153, or consent of instructor.
Description: Developing, maintaining, and disposing or recycling water for use in the petroleum industry. Problems associated with water production and disposal including water quality issues and seismicity. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5513 Marine Geology
Prerequisites: Minimum grade of "C" in: GEOL 1014 or GEOL 1114 or GEOL 1214 or GEOL 4503.
Description: Comprehensive examination of the geology of the ocean basins. Topics include: techniques of data collection and interpretation; shoreline, shelf and deep ocean processes; physical oceanography; origin and distribution of marine sediments; paleoceanography; marine mineral resources; marine tectonics and ocean history. Same course as GEOL 4513. May not be used for degree credit with GEOL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5523 Environmental Organic Geochemistry
Prerequisites: CHEM 1314 and 1515 or equivalent; GEOL 3034 or equivalent; GEOL 4403 or equivalent or permission of instructor.
Description: Introduction to some environmental aspects of organic geochemistry. Soils and sediments as pollutant receptors, sources of pollutants and selected aspects of environmental health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5533 Organic Geochemistry
Description: Introduction and broad overview of the biogeochemistry of organic compounds in geological systems, including sediments, water, and paleoenvironments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5543 Introduction to Exploration Seismology
Description: Introduction to theory, techniques, and application of seismic to field of hydrocarbon, groundwater, and minerals exploration. Review of fundamentals of wave propagation, historical development of the science, and current literature on application and instrumentation. No credit for students with credit in GEOL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5573 Marine Biogeochemical Cycles
Prerequisites: GEOL 1224 and GEOL 4403 and CHEM 1314.
Description: Analysis of the interactions between geological processes, biological activity, and chemical cycling for a range of elements. Limited discussion of atmospheric, terrestrial, and freshwater systems as they impact the oceans will also be discussed. Includes discussions of changes in elemental cycles through Earth's history and comparison to present-day patterns. No credit for credit in GEOL 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5583 Environmental Data Analytics
Prerequisites: Minimum grade of "C" in MATH 2144.
Description: Provides theoretical and practical experience in extracting meaning from complex and heterogeneous environmental data sources to understand and manage the natural environment (geosphere, hydrosphere, biosphere, and atmosphere). May not be used for degree credit with GEOL 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5603 Basin Evolution
Prerequisites: GEOL 3014, GEOL 3034, GEOL 4403.
Description: Advanced topics in sedimentary basin studies, including tectonics, sequence stratigraphy, facies analysis, regional diagenesis, thermal evolution, regional hydrogeology, and distribution of natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5633 Exploration Prospect Evaluation
Prerequisites: Graduate standing and permission of the instructor.
Description: Evaluation of exploration prospects in frontier and underdeveloped petroleum provinces using borehole-derived and geophysical data. Team taught course that uses industry provided datasets and current data management and interpretation software to reach drill or no-drill decisions based on science, risk analysis and economics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5643 Seismic Data Processing
Prerequisites: Consent of instructor.
Description: Theoretical background and practical training in the processing of seismic reflection and refraction data for petroleum, environmental, and engineering applications. Hands-on digital data processing using standard industry software. Topics to be covered include digital filtering, statics corrections, velocity analysis, deconvolution, stacking, and migration. May not be used for degree credit with GEOL 4643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5753 Volcanology
Prerequisites: GEOL 2464 or equivalent with a grade of "C" or higher.
Description: Examination of volcanic processes, products, and structures on Earth and other terrestrial bodies. Optional field trip. No credit for students with credit in GEOL 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology
Additional Fees: Geology Field Trip fee of $378 applies.

GEOL 5773 Planetary Geology
Prerequisites: GEOL 1114, and GEOL 3073 recommended.
Description: Geology of planets and planetary bodies, including geomorphology, tectonics, geochemistry and geophysics; perspectives on exploration; and life in the universe. Course previously offered as GEOL 4773.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 5803 Fundamentals of Carbon Capture and Geologic Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the fundamentals of carbon capture and storage and includes and introduction and summary of storage and capture technology, the CO2 sources that are suited to this technology, and economic and policy drivers. The course considers the full spectrum of geological opportunities for CO2 storage and CO2-enhanced oil and gas recovery, as well as basic operational design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5813 Multiphase Flow and Transport of CO2 in Subsurface
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers several aspects of CO2 transport in the subsurface and evaluates the safe storage of CO2 plumes. It explores in detail the challenges of geological storage. Topics to be covered include, but are not limited to plume migration, leakage risk, CO2 dissolution into the aqueous phase, capillary-entrapped CO2, and potential for in-situ CO2 mineralization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5823 Fundamentals of Water-Rock-CO2 Interactions
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the fundamentals of water-rock-CO2 interactions and will provide a combination of theoretical background, numerical modeling, and case studies from several pilot and commercial projects. The course will highlight the challenges of data collection from the field and from available datasets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5833 Geomechanics and Seismicity in Geological Carbon Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course covers the scientific fundamentals of seismology and geomechanics for a broad understanding of induced seismicity. Course covers a broad background on the fundamentals of geophysics and geology, specifically how stress in the earth interacts with faults and fractures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5843 4D Dynamic Reservoir Characterization
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course will utilize case studies to introduce participants to the art of interpreting time-lapse (4-D) multicomponent (9-C) seismic in terms of dynamic changes in rock properties. The modeling and interpretation techniques taught in this course can be applied to any porous subsurface system where fluid injection or extraction processes cause changes in the elastic subsurface rock properties. Knowledge gained can be transferred to examine systems such as carbon storage, geothermal, wastewater disposal, and heavy oil extraction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5853 Social, Legal, and Regulatory Context for Carbon Capture and Storage
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: This course will provide an overview of the social, legal, and regulatory context for participants to navigate aspects of carbon capture and storage (CCS) and energy transition projects. Using case histories, guest speakers, and experiential learning, this course introduces participants to the landscape in which project developers, regulators, policymakers, and industry providers will be expected to operate in to engage in Energy Transition projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5863 3D Seismic Exploration
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: Students will learn how to use principles of seismic stratigraphy, seismic geomorphology, structural geology, and rock physics to interpret seismic reflection data and associated attributes to delineate faults, fractures, folds, fluvial-deltaic complexes, turbidites, mass transport complexes, karst, and other structural and stratigraphic features of interest. Course is intended for graduate students in geosciences or petroleum engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5883 Risk Analysis in Conventional and Unconventional Reservoirs
Prerequisites: Admission to the Geoscience PSM or instructor permission.
Description: The course will review several conventional and recent unconventional discoveries with an emphasis on the technical geologic and engineering variables. The geologic emphasis of each play will focus on basin development, petroleum systems, super-basin concepts, and as analogs for future exploration and development in these and other innovations. Economic, financial, and oil & gas industry portfolio evaluation will be introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5893 Evolution of Sandstone Reservoirs
Prerequisites: GEOL 3034 and 3014.
Description: Sandstones and sands form major oil and gas reservoirs and critical aquifers. This course examines coarser siliciclastic bodies and follows their evolution from sediment to rock. Topics investigated include depositional settings and environments, distribution and geometry of sand bodies and the role of biotic activity and diagenesis in enhancing or reducing reservoir quality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 5981 Geoscience Internship
Prerequisites: Consent of instructor.
Description: Student participation in a research project during an internship in a Geoscience-related professional work setting for graduate credit. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 5990 Advanced Studies in Geology
Prerequisites: Consent of instructor.
Description: Individual library, laboratory and/or field projects on facets of geology not covered by existing courses. Field trips may be required. Course previously offered as GEOL 5710. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 6000 Doctoral Dissertation Research
Description: Work toward doctoral dissertation in Geology. Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Geology

GEOL 6103 Gravity and Magnetic Methods
Prerequisites: GEOL 4103.
Description: Principles of gravity and magnetic methods applied to petroleum, mineral, and groundwater exploration. Engineering applications will also be discussed. Data acquisition, processing and modeling using standard industry software will be emphasized.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6133 Unconventional Petroleum Reservoirs
Prerequisites: GEOL 4023.
Description: Review of unconventional sources of oil and gas production including coalbed methane, tight gas-sandstones, gas and oil-bearing shales and transition zone, high-water saturation sandstones and carbonates.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6213 Plate Tectonics
Description: Earth's evolution within the framework of plate tectonics. Examination of structural associations in relation to tectonic plate boundaries. Mechanisms for place tectonics and implication for resources and the environment. May not be used for degree credit with GEOL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6283 Geology of Shales
Prerequisites: Graduate standing or permission of instructor.
Description: Team-taught course that combines different geological techniques towards gaining a better understanding of shales as source and reservoir rock. These include petrography, XRD, SEM, Organic and Inorganic chemistry, geophysical logs, paleoecology and biostratigraphy. This course will involve lecture as well as laboratory techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6303 Electrical and Electromagnetic Methods
Prerequisites: GEOL 4103.
Description: Principles of the different geoelectrical methods, including electrical resistivity, induced polarization, self potential, electromagnetic, and ground penetrating radar will be emphasized. Geophysical instrumentation, laboratory measurements of physical properties, field procedures, and basic interpretation and near surface geophysical applications will be discussed. Recent advances in geoelectrical methods and case studies will be examined by reviewing current literature. Field trip required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6363 Carbonate Reservoir Characterization
Prerequisites: GEOL 5363 or Admission to the Geoscience PSM or instructor permission.
Description: A review of depositional and diagenetic controls on carbonate reservoir heterogeneity from pore scale to the geometrical attributes at reservoir-scale and how these parameters can be incorporated into the development of viable petrophysically-based reservoir models. In-class readings and exercises are used to reinforce the potential integration of petrophysical, geological and other data sets to provide students with experience in carbonate reservoir characterization for oil and gas, groundwater and CCUS reservoirs. This is a seminar and project-based course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6373 Advanced Carbonate Petrology and Geochemistry
Prerequisites: GEOL 4403 with a grade of "C" or higher and GEOL 5363 with a grade of "B" or higher or equivalents or consent of instructor.
Description: This course will cover advanced topics in carbonate petrology and geochemistry with emphasis on both early and late diagenetic processes, dolomitization, porosity and permeability, geochemical evolution of seawater and carbonate sediments, and regional diagenetic patterns in carbonate rocks and related strata.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6386 Sequence Stratigraphy of Shales
Prerequisites: Graduate standing. Intensive field course focusing on hydrocarbon-bearing shales of the Midcontinent.
Description: Advanced field techniques including high resolution spectral gamma ray analysis and highly detailed measured sections will be taught. Fifty localities including Devonian-Early Mississippian (Woodford and Chattanooga shales), Upper Mississippian (Barnett, Caney, and Fayetteville shales) and Pennsylvanian-Lower Permian shales will be analyzed.
Credit hours: 6
Contact hours: Lecture: 2 Lab: 12 Contact: 14
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

GEOL 6503 Rock Fractures
Description: Mechanical analysis and tectonic implications of brittle structural features such as joins, veins, and faults. Examination of topics such as mechanical stratigraphy in layered rocks, factors controlling joint spacing, and the dependence of failure mode on lithology. Field trips may be required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Geology

GEOL 6553 Contaminant Hydrogeology
Prerequisites: GEOL 4453 or an equivalent.
Description: Contaminant Hydrogeology will evaluate characterization and remediation approaches in a range of geologic settings for common subsurface impacts. Course will cover saline impacts, nonaqueous phase liquids, and emerging contaminants. Course previously offered as GEOL 5553.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Geology

Undergraduate Programs

- Environmental Geoscience, BS (p. 1403)
- Geology, BS (p. 1406)
- Geology: Business Essentials, BS (p. 1409)
- Geology: Environmental Geology, BS (p. 1412)
- Geology: Petroleum Geology, BS (p. 1415)
- Geology: Pre-Law, BS (p. 1418)

- Geology: Secondary Teacher Certification, BS (p. 1421)
- Geophysics, BS (p. 1425)

Graduate Programs

Prerequisites

The student should have at least 30 credit hours in geosciences. Credit hours must include courses in physical geology, historical geology, rocks and minerals/mineralogy, sedimentology/stratigraphy, structural geology, field camp, or other courses relevant to the student's graduate research. Additional undergraduate requirements to enter the graduate programs include: two courses in chemistry/geochemistry, two courses in physics, and/or math courses through calculus II. Deficiencies in coursework must be made up by the student after entering the program. The Graduate Record Examination is recommended, but not required, for admission to the program.

The Master of Science Degree

The MS is awarded through the completion of a thesis. Each candidate must complete at least 30 semester credit hours of work beyond the prerequisites. As many as 12 of these may be taken in other departments of the University upon approval by the candidate's advisory committee. A final defense of the thesis and the research that it documents is required of all students.

The Doctor of Philosophy Degree

The PhD is awarded upon completion of a doctoral dissertation. A minimum of 60 credit hours (coursework and research hours) beyond the MS or MA degree are required for the PhD. Under normal circumstances, students must hold a master's degree in geology or a related field to be accepted into the PhD program. However, under exceptional circumstances, students may be accepted directly into the PhD program without a master's degree. Such students will be required to complete a total of 90 semester credit hours (coursework and research hours) to earn their degree. Such decisions are made by the entire faculty of the School of Geology, upon recommendation of the Graduate Advisor. To be admitted to candidacy, students must pass a written and oral qualifying exam, and successfully defend their dissertation research proposal and pass an associated comprehensive exam. The PhD is conferred after the successful defense of the dissertation.

Accelerated Master of Science Degree

Our School is proud to offer an Accelerated MS option. Students who wish to pursue an Accelerated Master's should have completed 90 or more hours toward their BS by the end of their term of application, including GEOL 3014 and GEOL 3034, and should have a strong background with undergraduate research. Students who are admitted into the Accelerated Master's program will be eligible to share 9 credit hours between their BS and MS degrees.

Minors

- Geology (GEOL), Minor (p. 1424)
- Geophysics (GPHY), Minor (p. 1428)
- Oceanography (OCEN), Minor (p. 1429)

Faculty

Interim Department Head—Todd Halihan, PhD (Hydrogeology of Fractured and Karstic Aquifers and Hydrogeophysics)

Professors: G. Michael Grammer, PhD (Carbonate Sed/Strat and Reservoir Characterization); Todd Halihan, PhD (Hydrogeology of Fractured and Karstic Aquifers and Hydrogeophysics); Priyank Jaiswal, PhD (Geoscience, Seismology, Inverse Theory, Petroleum Systems and Gas Hydrates); Camelia Knapp, PhD (Geophysics, Crustal Studies, Energy Resources, Carbon Storage, Gas Hydrates and Project Management); James H. Knapp, PhD (Structural Geology, Geophysics, Crustal Studies and Carbon Storage); Daniel Laó Dávila, PhD (Structural Geology and Plate Tectonics, Fault Slip Analysis and Caribbean Geology); Jack Pashin, PhD (Structural Geology, Basin Analysis, Coalbed Methane, Shalegas and Sedimentary Geology); Tracy Quan, PhD (Isotope/Organic Geochemistry, Paleoceanography and Sedimentary Geochemistry)

Associate Professors: Natascha Riedinger, PhD (Sedimentary Geochemistry, Marine Systems and Biogeochemical Cycles); Javier Vilcaez, PhD (Geofluids and Hydrogeology)

Assistant Professors: Ashley Burkett, PhD (Micropaleontology, Biostratigraphy, and Climate); Xiaofeng Chen, PhD (Structural Geology, Rock Mechanics, Geomechanics, Earthquake Hazards and Experimental Rock Deformation); Andrew Katumwehe, PhD (Environmental Geophysics and Structural Geology); Tingying Xu, PhD (Environmental Geochemistry, Hydrogeochemistry and Metal (Bio) Geochemistry); Yipeng Zhang, PhD (Hydrogeology, Basin Scale Numerical Modeling, Groundwater in Geologic Processes and Induced Seismicity)

Teaching Assistant Professor: Trenity Ford, PhD (Micropaleontology and Geoscience Education); Brandon Spencer, PhD (Structural Geology, Tectonics, Metamorphic Petrology, Geochemistry and Geoscience Education)

Visiting Associate Professor: Mary Hileman, PhD (Sedimentology and Petroleum Geology)

Adjunct Professor: Carlos Cordova, PhD (Geoarchaeology, Quaternary Paleoecology, Geomorphology, Pollen and Phytoliths); Babu Fathepure, PhD (Bioremediation Microbes, Microbiology and Microbial Ecology)

Adjunct Associate Professor: Rob Agnew, PhD (Engineering Technology, HAZMAT, Fire Protection and Safety); Mileva Radonjic, PhD (Rock Fluid Interactions, Microgeochemistry, Wellbore Leakage and Caprock Integrity)

Adjunct Assistant Professor: Caitlin Barnes, PhD (Fluid Induced Seismicity, Disposal Wells and Planetary Geology); Sabrina Beckmann, PhD (Industrial Microbiology, Microbiology, Environmental Engineering, Agricultural Development and Water Treatment)

Environmental Geoscience, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
or GEOL 1014	Geology and Human Affairs (LN)	
PHYS 1114	College Physics I (LN)	4
STAT 2013	Elementary Statistics (Q)	3
or STAT 4013	Statistical Methods I (Q)	
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
Minimum grade of "C" in all Major Required courses.		
GEOL 2103	Fundamentals of Geophysics [1]	3
or PHYS 1214	College Physics II (LN)	
GEOL 2403	Chemistry of Earth Systems [1]	3
or CHEM 1515	Chemistry II (LN)	
GEOL 2464	Rocks and Minerals	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3503	Environmental Geology (N)	3
GEOL 3546	Field Geology [1]	6
or GEOL 4981	Geoscience Internship	
GEOL 4453	Hydrogeology	3
or GEOL 4463	Physical Hydrogeology	
GEOG 4073	Climate Change: Past, Present, and Future	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
or NREM 2083	Geospatial Technologies for Natural Resources	
NREM 3013	Applied Ecology and Conservation [1]	3
or BIOL 3034	General Ecology	
or ENVR 3113	Environmental Sampling and Analysis	
SOIL 2124	Fundamentals of Soil Science (N)	4
NREM 4043	Natural Resource Administration and Policy	3
Select 15 hours from the following:		15
GEOL 1224	Evolution of the Earth (LN)	
GEOL 3014	Structural Geology	
GEOL 3073	Geomorphology	
GEOL 3103	Paleontology	
GEOL 4503	Introduction to Oceanography (N)	
GEOL 4513	Marine Geology	
GEOL 4583	Environmental Data Analytics	
GEOL 4673	Critical Earth Materials	
GEOL 4753	Volcanology	
GEOG 3333	Spatial Analysis (Q)	
GEOG 4053	Biogeography, Biodiversity, and Humankind	
GEOG 4333	Remote Sensing	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	

GEOG 4343	Geographic Information Systems: Resource Management Applications	
ENVR 1113	Elements of Environmental Science (N)	
NREM 3153	Forest Health and Disturbance Ecology	
NREM 4033	Ecology Of Invasive Species	
BIOL 4434	Limnology	
Hours Subtotal		**57**
Electives		
Select 8 hours [1]		8
Hours Subtotal		
Total Hours		**120**

1

Elective credit hours will be reduced accordingly if PHYS 1214 and/or CHEM 1515 and/or BIOL 3034 are selected, or increased accordingly if GEOL 4981 is taken for internship credit in lieu of GEOL 3546.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
GEOL 1214 or GEOL 1114 or GEOL 1014	Introductory Geological Processes (LN) or Physical Geology (LN) or Geology and Human Affairs (LN)	4
MATH 1513	College Algebra (Q)	3
General Education courses		4
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
General Education, College, and Major courses		12
	Hours	**16**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
PHYS 1114	College Physics I (LN)	4
General Education courses		6
	Hours	**14**
Spring		
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems or Chemistry II (LN)	3
GEOL 2403 offered every even Spring semester		
GEOL 4300	Geology Colloquium	1
SOIL 2124	Fundamentals of Soil Science (N)	4
Major, College, or Elective courses		7
	Hours	**15**
Junior		
Fall		
GEOG 4073	Climate Change: Past, Present, and Future	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
NREM 3013 or BIOL 3034 or ENVR 3113	Applied Ecology and Conservation or General Ecology or Environmental Sampling and Analysis	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
GEOL 2103 or PHYS 1214	Fundamentals of Geophysics or College Physics II (LN)	3
GEOL 2103 offered every odd Spring semester		
GEOL 3503	Environmental Geology (N)	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
GEOG 4343	Geographic Information Systems: Resource Management Applications	3
GEOL 4453	Hydrogeology	3
NREM 4043	Natural Resource Administration and Policy (if needed)	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
POLS 4363	Environmental Law And Policy	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Geology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
NREM 1014	Introduction to Natural History (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
PHYS 2014	University Physics I (LN)	4
or PHYS 1114	College Physics I (LN)	
Foreign Language		
See note 3.		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum grade of "C" in all Geology courses.		
Core Curriculum		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3546	Field Geology	6
MATH 2153	Calculus II (Q)	3
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	
Related Curriculum		
Select 21 hours of upper-division GEOL [2]		21
Hours Subtotal		**54**
Electives		
Select 13 hours		13
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 8 additional upper-division hours		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144		
Recommended courses:		
GEOG 4203	Fundamentals of Geographic Information Systems	
STAT 4013	Statistical Methods I (Q)	
Hours Subtotal		**13**
Total Hours		**120**

1 College and Departmental Requirements that may be used to meet General Education Requirements.

2 Excluding GEOL 2013, GEOL 3413, and GEOL 3513.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214	Introductory Geological Processes (LN)	4
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
MATH 2144	Calculus I (Q)	4
General Education courses		3
	Hours	**15**
Spring		
MATH 2153	Calculus II (Q)	3
CHEM 1314	Chemistry I (LN)	4
GEOL 1224	Evolution of the Earth (LN)	4
General Education courses		3
	Hours	**14**

Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
General Education courses		12
	Hours	**16**
Spring		
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems or Chemistry II (LN)	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Major, College, or Elective courses		3
	Hours	**14**
Junior		
Fall		
GEOL 3014	Structural Geology	4
Major, College, and Elective courses		11
	Hours	**15**
Spring		
GEOL 2103 or PHYS 1214 or PHYS 2114	Fundamentals of Geophysics or College Physics II (LN)	3
Major, College, and Elective courses		10
	Hours	**13**
Summer		
GEOL 3546	Field Geology	6
	Hours	**6**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		12
	Hours	**12**
	Total Hours	**120**

1

Speak with your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) with International (I) and Diversity (D) dimensions.

Geology: Business Essentials, BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
See Academic Regulation 3.5 (p. 1007)		
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 2014	University Physics I (LN) [1]	4
or PHYS 1114	College Physics I (LN)	
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
NREM 1014	Introduction to Natural History (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematics Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
(See note 2.b.)		
Foreign Languages		
See note 3.		
Upper-Division General Education		
6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum grade of "C" in all Geology courses.		
Core Curriculum		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3546	Field Geology	6
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	
3 hours STAT designated (A)		3
12 hours upper-division GEOL [2]		12
Business Essentials		
ACCT 2003	Survey of Accounting	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 3013	Fundamentals of Management (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
FIN 3113	Principles of Finance	
or FIN 4003	Introduction to Energy Business	
Hours Subtotal		**60**
Electives		**7**
May need to include 6 hours of a foreign language. See note 3.		
6 hours of MBA courses during senior year recommended for consideration into the OSU MBA Program upon graduation.		
MATH 1513 and MATH 1813 may be required for students who do not place directly into MATH 2144.		
Hours Subtotal		**7**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Excluding GEOL 2013, GEOL 3413, and GEOL 3513.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214	Introductory Geological Processes (LN)	4
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
MATH 2144	Calculus I (Q)	4
General Education courses		3
	Hours	**15**
Spring		
GEOL 1224	Evolution of the Earth (LN)	4
CHEM 1314	Chemistry I (LN)	4

General Education courses		6
	Hours	**14**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
3 hours STAT (A)		3
College and General Education courses		9
	Hours	**16**
Spring		
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems or Chemistry II (LN)	3
PHYS 1114	College Physics I (LN)	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Major, College, and Elective courses		3
	Hours	**14**
Junior		
Fall		
GEOL 3014	Structural Geology	4
Major, College, and Elective courses		12
	Hours	**16**
Spring		
GEOL 2103 or PHYS 1214	Fundamentals of Geophysics or College Physics II (LN)	3
Major, College, and Elective courses		12
	Hours	**15**
Summer		
GEOL 3546	Field Geology	6
	Hours	**6**
Senior		
Fall		
Major, College, and Elective courses		12
	Hours	**12**
Spring		
Major, College, and Elective courses		12
	Hours	**12**
	Total Hours	**120**

1

Speak to your Academic Advisor about pairing General Education Humanities (H) or Social Sciences (S) with General Education International (I) and Diversity (D) dimensions.

Geology: Environmental Geology, BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
CHEM 1314	Chemistry I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
NREM 1014	Introduction to Natural History (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
PHYS 2014	University Physics I (LN)	4
or PHYS 1114	College Physics I (LN)	
CHEM 1515	Chemistry II (LN)	5
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	
(See note 2.b.)		
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**17**
Major Requirements		
Minimum grade of "C" in all Major Required courses.		
Core Curriculum:		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3503	Environmental Geology (N)	3
GEOL 4403	Environmental Geochemistry	3
GEOL 4453	Hydrogeology	3
or GEOL 4463	Physical Hydrogeology	
GEOL 3546	Field Geology	6
ENVR 1113	Elements of Environmental Science (N)	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
or NREM 2083	Geospatial Technologies for Natural Resources	
MATH 2153	Calculus II (Q)	3
Related Curriculum:		
9 hours upper-division related from: CHEM, ENVR, GEOG, GEOL, NREM, POLS, SOIL, BIOL		9
Hours Subtotal		**53**
Electives [2]		
Select 10 hours. [2]		10
May need to include 6 hours of a foreign language. See note 3.		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**10**
Total Hours		**120**

1 College and Departmental Requirements that may be used to meet General Education Requirements.

2 Excluding GEOL 2013, GEOL 3413, and GEOL 3513.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214	Introductory Geological Processes (LN)	4
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		3
	Hours	**15**
Spring		
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems (every other year) or Chemistry II (LN)	3
MATH 2144	Calculus I (Q)	4
General Education courses		4
	Hours	**15**

Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
ENVR 1113	Elements of Environmental Science (N)	3
College and General Education courses		9
	Hours	**16**
Spring		
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems (if needed) or Chemistry II (LN)	3
PHYS 1114	College Physics I (LN)	4
MATH 2153	Calculus II (Q)	3
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
	Hours	**14**
Junior		
Fall		
GEOL 3014	Structural Geology	4
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		7
	Hours	**14**
Spring		
GEOL 2103 or PHYS 1214	Fundamentals of Geophysics (every other year) or College Physics II (LN)	3
GEOL 3503	Environmental Geology (N)	3
GEOL 4403	Environmental Geochemistry (every other year)	3
Major, College, and Elective courses		6
	Hours	**15**
Summer		
GEOL 3546	Field Geology	6
	Hours	**6**
Senior		
Fall		
GEOL 4453	Hydrogeology	3
Major, College, and Elective courses		9
	Hours	**12**
Spring		
GEOL 4403	Environmental Geochemistry (if needed)	3
Major, College, and Elective courses		10
	Hours	**13**
	Total Hours	**120**

1

Speak to your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) courses with International (I) and Diversity (D) dimensions.

Geology: Petroleum Geology, BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
NREM 1014	Introduction to Natural History (LN)	
Exploring Society & Human Behavior (S)		
Course desginated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		*3*
(See note 2.a.)		
Natural & Mathematical Sciences		
PHYS 2014	University Physics I (LN) [1]	4
or PHYS 1114	College Physics I (LN)	
GEOL 2403	Chemistry of Earth Systems [2]	3
or CHEM 1515	Chemistry II (LN)	
(See note 2.b.)		
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**11**
Major Requirements		
Minimum grade of "C" in all Major Required courses.		
Core Curriculum:		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 4023	Petroleum Geology	3
GEOL 4443	Environmental Geophysics	3
or GEOL 4403	Environmental Geochemistry	
GEOL 4213	Plate Tectonics	3
GEOL 4313	Introduction to Well Log Analysis	3
GEOL 4453	Hydrogeology	3
or GEOL 4463	Physical Hydrogeology	
GEOL 3546	Field Geology	6
Related Curriculum:		
FIN 4003	Introduction to Energy Business	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
or NREM 2083	Geospatial Technologies for Natural Resources	
MATH 2153	Calculus II (Q)	3
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	
Hours Subtotal		**54**
Electives [2]		
Select 15 hours. [2]		15
May need to include 6 hours of a foreign language		
See note 3.		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
GEOL 3103 and GEOL 4673 recommended.		
Hours Subtotal		**15**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

If CHEM 1515 is taken in lieu of GEOL 2403, 2 additional hours are required.

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214	Introductory Geological Processes (LN)	4
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
MATH 2144	Calculus I (Q)	4

General Education courses		3
	Hours	**15**
Spring		
GEOL 1224	Evolution of the Earth (LN)	4
MATH 2153	Calculus II (Q)	3
CHEM 1314	Chemistry I (LN)	4
General Education courses		3
	Hours	**14**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
PHYS 1114	College Physics I (LN)	4
College and General Education courses		7
	Hours	**15**
Spring		
GEOL 2403 or CHEM 1515	Chemistry of Earth Systems or Chemistry II (LN)	3
GEOL 2403 offered every even Spring semester		
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Major, College, and Elective courses		8
	Hours	**15**
Junior		
Fall		
GEOL 3014	Structural Geology	4
GEOL 4443	Environmental Geophysics	3
Major, College, and Elective courses		8
	Hours	**15**
Spring		
GEOL 2103 or PHYS 1214	Fundamentals of Geophysics or College Physics II (LN)	3
GEOL 2103 offered every odd Spring semester		
GEOL 4403	Environmental Geochemistry (offered every odd Spring semester)	3
Major, College, and Elective courses		9
	Hours	**15**
Summer		
GEOL 3546	Field Geology	6
	Hours	**6**
Senior		
Fall		
GEOL 4213	Plate Tectonics	3
GEOL 4453	Hydrogeology	3
Major courses		6
	Hours	**12**
Spring		
FIN 4003	Introduction to Energy Business	3
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOL 4023	Petroleum Geology	3
Major, College, and Elective courses		4
	Hours	**13**
	Total Hours	**120**

1

Speak to your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) courses with General Education International (I) and Diversity (D) dimensions.

Geology: Pre-Law, BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
CHEM 1314	Chemistry I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
NREM 1014	Introduction to Natural History (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
PHYS 2014	University Physics I (LN) [1]	4
or PHYS 1114	College Physics I (LN)	
(See note 2.b.)		
Foreign Languages		
(See note 3.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum grade of "C" in all Geology courses.		
Core Curriculum:		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3503	Environmental Geology (N)	3
GEOL 4023	Petroleum Geology	3
or GEOL 4453	Hydrogeology	
GEOL 3546	Field Geology	6
PHYS 2114	University Physics II (LN)	4
or PHYS 1214	College Physics II (LN)	
3 hours STAT designated (A)		3
Pre-Law Curriculum:		
18 hours from:		18
AGEC 3713	Agricultural Law	
ENGL 3323	Technical Writing	
LSB 3213	Legal and Regulatory Environment of Business	
LSB 4633	Legal Aspects of International Business Transactions (G)	
PHIL 1313	Logic and Critical Thinking (Q)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3993	Legal Research And Analysis	
POLS 4363	Environmental Law And Policy	
PSYC 4143	Psychology and Law	
SOC 4313	Sociology of Law	
SOC 4433	Environmental Sociology (S)	
SPCH 3733	Elements of Persuasion (S)	
or other courses as approved by the Geology undergraduate advisor.		
Hours Subtotal		**57**
Electives		
Select 10 hours		10
May need to include 6 hours of a foreign language.		

See note 3.	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**10**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Excluding GEOL 2013, GEOL 3413, and GEOL 3513.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214/1114	Introductory Geological Processes (LN)	4

NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
MATH 2144	Calculus I (Q)	4
PHIL 1313	Logic and Critical Thinking (Q) (recommended PLAW)	3
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
GEOL 1224	Evolution of the Earth (LN)	4
General Education and College courses		6
	Hours	**14**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
3 hours STAT (A)		3
General Education, College, Major courses		7
	Hours	**14**
Spring		
GEOL 2403	Chemistry of Earth Systems (every other year)	3
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
Major, College, and Elective courses		5
	Hours	**16**
Junior		
Fall		
GEOL 3014	Structural Geology	4
Major, College, and Elective courses		11
	Hours	**15**
Spring		
GEOL 2103 or GEOL 2403	Fundamentals of Geophysics (every other year) or Chemistry of Earth Systems	3
GEOL 3503	Environmental Geology (N)	3
Major, College, and Elective courses		9
	Hours	**15**
Summer		
GEOL 3546	Field Geology	6
	Hours	**6**
Senior		
Fall		
GEOL 4453 or GEOL 4023	Hydrogeology or Petroleum Geology	3
Major, College, and Elective courses		9
	Hours	**12**
Spring		
GEOL 2103	Fundamentals of Geophysics (every other year)	3
GEOL 4023 or GEOL 4453	Petroleum Geology (every other year) or Hydrogeology	3
Major, College, and Elective courses		7
	Hours	**13**
	Total Hours	**120**

1

Speak to your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) courses with International (I) and Diversity (D) dimensions.

Geology: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1,2]	4
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
ASTR 1023	Stars, Galaxies, Universe (N)	3
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
PHIL 3933	Creation and Evolution	3
Natural & Mathematical Sciences		
PHYS 2014	University Physics I (LN) [1,2]	4
or PHYS 1114	College Physics I (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 4013	Statistical Methods I (Q)	
Select four hours from the following:		4
BIOL 1114	Introductory Biology (LN) [1,2]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1,2]	
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Geology Core and those denoted with [2]		
GEOL 1214	Introductory Geological Processes (LN) [1,2]	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 2773	Introduction to Planetary Geology (N)	3
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3503	Environmental Geology (N)	3
GEOL 4503	Introduction to Oceanography (N)	3
GEOG 3023	Climatology (N)	3
or GEOG 3033	Meteorology (N)	
Secondary Education Professional Core		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom (6 hours) [3]	6

Hours Subtotal	**61**
Electives	
Select 4 hours	4
May need to include 6 hours of a foreign language (see note 3)	
Suggested electives for Physical Science Certification: CHEM 3013 or CHEM 3015 and PHYS 1214 or PHYS 2114	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144	
Hours Subtotal	**4**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Geology Core and those denoted with [2].

3

Full admission to Professional Education required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GEOL 1214 or GEOL 1114	Introductory Geological Processes (LN) or Physical Geology (LN)	4
MATH 2144	Calculus I (Q)	4
NREM 1014 or BIOL 1113 ***and*** BIOL 1111	Introduction to Natural History (LN) or Introductory Biology (N) ***and*** Introductory Biology Laboratory (LN)	4
SMED 1012	Inquiry Approaches to Teaching	2
	Hours	**14**
Spring		
ASTR 1023	Stars, Galaxies, Universe (N)	3
CHEM 1314	Chemistry I (LN)	4
GEOL 1224	Evolution of the Earth (LN)	4
General Education courses		4
	Hours	**15**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
GEOL 2773	Introduction to Planetary Geology (N) (every other year)	3
CHEM 1515	Chemistry II (LN)	5
Major, College, and General Education courses		3
	Hours	**15**
Spring		
GEOG 3023	Climatology (N)	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Major, College, and Elective courses		2
	Hours	**16**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
GEOL 2773	Introduction to Planetary Geology (N) (if needed)	
GEOL 4503	Introduction to Oceanography (N)	3
PHIL 3933	Creation and Evolution (August Pre-Session only)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
SPED 3202	Educating Exceptional Learners	2
	Hours	**15**
Spring		
CIED 4133	Introduction to K-12 English Language Learners	3
GEOL 3503	Environmental Geology (N)	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
General Education course & Electives		6
	Hours	**16**
Senior		
Fall		
GEOL 3014	Structural Geology	4
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
Major, College, and Elective courses		6
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
Major, College and Elective Courses		4
	Hours	**13**
	Total Hours	**120**

Geology (GEOL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Grade Point Average in Minor: 2.00
Total Hours: 24

Code	Title	Hours
Minor Requirements		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
Select at least 12 hours of upper-division GEOL		12
Total Hours		**24**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Geophysics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
PHYS 2014	University Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum grade of "C" in all Geology courses.		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 4113	Seismic Interpretation	3
GEOL 4443	Environmental Geophysics	3
or GEOL 2103	Fundamentals of Geophysics	
GEOL 4543	Introduction to Exploration Seismology	3
GEOL 4643	Seismic Data Processing	3
PHYS 2114	University Physics II (LN)	4
PHYS 3513	Mathematical Physics	3
Select 18 hours from the following:		18
GEOL 4023	Petroleum Geology	
GEOL 3546	Field Geology	
GEOL 4213	Plate Tectonics	
GEOL 4313	Introduction to Well Log Analysis	
GEOL 4433	Applied Geostatistics	
GEOL 4463	Physical Hydrogeology	
GEOL 4990	Special Problems in Earth Science (1-9 hours)	
GEOL 4993	Senior Honors Thesis	
GEOG 4333	Remote Sensing	
Hours Subtotal		**57**
Electives		
Select 10 hours		10
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general outside major department (see note 2.c.) and 8 additional upper-division hours		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144		
Recommended courses:		
CS 1103	Computer Programming (Q)	
or CS 1113	Computer Science I (Q)	
MATH 3013	Linear Algebra (Q)	
PHYS 4113	Electricity and Magnetism	
Hours Subtotal		**10**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 2144	Calculus I (Q)	4
GEOL 1114	Physical Geology (LN)	4
General Education courses		7
	Hours	**15**
Spring		
GEOL 1224	Evolution of the Earth (LN)	4
MATH 2153	Calculus II (Q)	3
CHEM 1314	Chemistry I (LN)	4

General Education courses		4
	Hours	**15**
Sophomore		
Fall		
GEOL 2464	Rocks and Minerals	4
PHYS 2014	University Physics I (LN)	4
MATH 2163	Calculus III	3
General Education courses		4
	Hours	**15**
Spring		
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
PHYS 2114	University Physics II (LN)	4
MATH 2233	Differential Equations	3
Major, College, and Elective Courses		4
	Hours	**15**
Junior		
Fall		
GEOL 3014	Structural Geology	4
GEOL 4443	Environmental Geophysics	3
Major, College, and Elective courses		8
	Hours	**15**
Spring		
GEOL 4113 or GEOL 4543	Seismic Interpretation or Introduction to Exploration Seismology	3
PHYS 3513	Mathematical Physics	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
GEOL 4643	Seismic Data Processing	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
GEOL 4543 or GEOL 4113	Introduction to Exploration Seismology or Seismic Interpretation	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

1

Speak to your Academic Advisor about pairing General Education Humanities (H) and Social Sciences (S) courses with International (I) and Diversity (D) dimensions.

Geophysics (GPHY), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Contact: Sheri Orr, 404 NRC, 405-744-3729

Minimum Grade Point Average in Minor Coursework: All coursework for the minor to be completed with a grade of "C" or better.
Total Hours: 24

Code	Title	Hours
GEOL 3413	Petroleum Geology for Engineers	3
or GEOL 1114	Physical Geology (LN)	
or GEOL 1214	Introductory Geological Processes (LN)	
GEOL 4443	Environmental Geophysics	3
or GEOL 2103	Fundamentals of Geophysics	
GEOL 4113	Seismic Interpretation	3
or GEOL 4543	Introduction to Exploration Seismology	
MATH 2144	Calculus I (A)	4
MATH 2153	Calculus II (A)	3
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
Total Hours		**24**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Oceanography (OCEN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Core Requirements		
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 3103	Paleontology	3
or BIOL 3163	Environmental Biology	
or MICR 4313	GeoMicrobiology	
GEOL 4503	Introduction to Oceanography (N)	3
GEOL 4513	Marine Geology	3
or GEOG 4073	Climate Change: Past, Present, and Future	
Select from the following [1]		2
GEOL 1003	The Story of Dinosaurs (N)	
GEOL 1022	Climate Change and Humanity (N)	
or GEOG 1022	Climate Change and Humanity (N)	
GEOL 1014	Geology and Human Affairs (LN)	
GEOL 1114	Physical Geology (LN)	
GEOL 1214	Introductory Geological Processes (LN)	
GEOL 2773	Introduction to Planetary Geology (N)	
GEOL 2013	Geology of the National Parks (N)	
Total Hours		**15**

1

Total hours are based on any two-hour courses selected from this list.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

History

Courses in the Department of History are intended to give the student a broad understanding of the evolution of civilizations, peoples, countries, and institutions, and insight into the meaning of this evolution. They are also designed to prepare graduates for many types of employment.

Because history is basic to many fields, the Department's instruction is designed to aid students interested in the humanities, education, law, journalism, scientific and technical disciplines, public service, and business administration. Students in colleges other than the College of Arts and Sciences who wish to pursue the study of history are encouraged to enroll in courses of interest. The Department of History offers a number of courses that satisfy General Education requirements in the humanities, social sciences, diversity and international courses. It participates actively in the Honors Program and offers to its majors the option of pursuing an Honors certificate. The Department of History also participates actively in interdisciplinary programs.

A Bachelor of Arts (BA) in History requires 48 hours in the major and related disciplines, with 36 hours of History courses across U.S., European, and World History, plus 12 hours of upper-division courses in related departments. A History minor requires 18 hours of History, at least twelve of which must be upper-division. GPA of 2.5 in History courses with no HIST grade below “C.”

Courses

HIST 1010 Studies in American History
Description: Special study in American history to allow transfer students to fulfill general education requirements as established by Regents' policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 1103 Survey of American History
Description: Meaning, vitality, and uniqueness of United States history since 1492 through a thematic examination of the nation's past. Satisfies, with POLS 1113, the State Regents requirement of six credit hours of American history and American government before graduation. No degree credit for students with credit in HIST 1483 or HIST 1493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 1483 American History to 1865 (H)
Description: From European colonization of the Americas through the U.S. Civil War. Examines important political, economic, social, and cultural developments, such as the transatlantic slave trade, the American Revolution, the Constitution and the Bill of Rights, the Market Revolution, Antebellum slavery, the abolitionist movement, Indian Removal, and sectionalism and the Civil War. Intended for Education majors seeking certification as Social Studies teachers. May not be used for degree credit with HIST 1103. Previously offered as HIST 2483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1493 American History Since 1865 (DH)
Description: From the period of Reconstruction to the present. Examines important political, economic, social, and cultural developments, such as the Compromise of 1877, lynching, Jim Crow, economic imperialism, the Progressive Era, U.S. participation in the world wars, the Great Depression, the New Deal consensus, redlining/suburbanization, the Cold War, the Civil Rights Movements, the Reagan Revolution, and the "culture wars." May be taken independently of HIST 1483. May not be used for degree credit with HIST 1103. Previously offered as HIST 2493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 1613 Western Civilization to 1500 (H)
Description: History of western civilization from ancient world to Reformation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1623 Western Civilization after 1500 (H)
Description: History of western civilization from Reformation to present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1713 Survey of Eastern Civilization (H)
Description: History of three eastern civilizations (East Asia, South Asia and West Asia) from pre-history to the 18th century. Special attention to their origins, development, and contributions to the evolution of world civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1813 World History from Ancient Times to 1500 (H)
Description: This course examines the development of social, cultural, economic, and political systems from ancient times to the beginning of the sixteenth century. We will examine the growth of empires, trade routes, religions, and culture in Asia, Africa, the Americas, and Europe. This course will examine the ways in which these societies connected and made contact with each other through trade, warfare, and migration and the resulting exchange of ideas. Previously offered as HIST 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 1823 World History 1500 to Present (H)
Description: This course surveys world history from 1500 to the present day. The course will track the formation of the "modern" world through a study of changes in political situations, culture, and society. The course will examine topics such as changes in science and technology, culture and religion, the expansion and decline of empires, the growth of nationalism, and the continuing rise of globalization. The class will emphasize the role of changing definitions and roles of race, social class, and gender in shaping historical events. Previously offered as HIST 2223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2023 History of the Present (H)
Description: Introduction to the study of history through the lens of current events and contemporary issues. Particular areas of focus will vary, based on instructor's expertise, to include topics like race, gender religion, food, sports, environment, politics, immigration, mass incarceration, and/or globalization, among others. Contact the History Department for specific information for the upcoming semester.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2043 Ghosts and Graveyards: History of Dark Tourism (H)
Description: This course explores the history of dark tourism, including practices and impact. Students will analyze tourist experiences in spaces associated with tragedy, suffering, death, and spookiness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2133 African Diaspora History(DH)
Description: Introduction to the origin, development, and maturation of the African Diaspora in the Americas and the Caribbean, beginning on the African continent and moving through the Americas, Caribbean, and Europe. It considers important issues, such as the formation of racial identities, movements, the circulation of ideas and connections in activism, and the manner in which the intersection of race, class, gender, sexuality, location, language, and power influence how groups and individuals experience diaspora. Previously offered as HIST 3133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2153 African American History, 1619-1865 (DH)
Description: Overview of the history of African Americans from their African origins to their participation in and impact on the Civil War. Topics include: African background; interaction between Africans, Indians and Europeans; development of slavery; forms of resistance; rise of the abolitionist movement; and conditions of free blacks. Previously offered as HIST 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2163 African American History, 1865-Present (DH)
Description: Overview of the history of African Americans from the end of the Civil War to the present. Topics include emancipation and Reconstruction; the Jim Crow Era; migrations to the North and West; the Civil Rights and Black Power Movements; contemporary developments in African American life. Previously offered as HIST 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2313 Heroes and Wonders of the Ancient World (H)
Description: Highlights of ancient history, especially from Egypt, Mesopotamia and Greece. Examines the Seven Wonders of the Ancient World and heroes such as Gilgamesh, Achilles, Sappho and Heracles. Other major historical and archaeological discoveries are also featured.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2333 American Thought and Culture: Survey (H)
Description: Survey of American religious, philosophical, artistic, and scientific ideas and their impact on culture and values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2343 Religion in America (DH)
Description: Survey of the religions practiced in North America and the United States from the colonial era to the twenty-first century, including Native American religions, Christianity, Islam, and Judaism; impact of religion on social reform, politics, and intellectual life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 2353 Environmental History (H)
Description: A history of the environment that studies the changing relationships between humans and the natural world around them. It will explore both how people have thought about the environment and the role of science, economics, disease, and states in shaping how humans and non-human animals have lived on land.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2413 From Assassin's Creed to Witcher: Medievalism in the 21st Century World (H)
Description: Assesses video game and film portrayals of the Middle Ages and medievalism. Through historiographical readings and critical analysis of modern media sources, examines the ways in which popular media depictions of the past weave fact with fiction, building on our common cultural narrative of "medieval-ish" worlds. No credit for degree credit in HIST 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2473 American Imperial Culture
Description: This course is designed to be a broad survey of American imperial culture, and responses to it, with a focus on the period from 1890 to 1960. Same course as AMST 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 2513 Plantation to Plate: Sugar, Bananas, and Coffee in America (H)
Description: Considers the historical impact that three food commodities – bananas, sugar, and coffee – have had on producing and consuming societies in Latin America and the United States. Analyzes the way food influenced the formation of racial and gender identities and examines different moments when these commodities influenced foreign policy and politics. Same course as AMST 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2523 Dust Bowl (H)
Description: Examination of the Dust Bowl as: an ecological, economic, and human tragedy; cultural representations in film, literature, art, photography, and music; and a comparative example to study modern issues of ecology, water rights, and environmental justice in the southern plans and around the world. Same course as AMST 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2603 History of Science (H)
Description: This course offers an introduction to the history of science from the ancient world to the present. It will not focus exclusively on discoveries and their discoverers. Instead, it will stress questions such as: What is science, how has it been practiced, and by whom? Does culture play a role in scientific development? What is the relationship of gender, race, class, sexual identity, and science? May not be used for degree credit with HIST 3073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2613 History of Disease (H)
Description: A global history of diseases across time. Emphasis on infectious diseases and pandemics and their social, cultural, and political effects. May not be used for degree credit with HIST 3893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2713 Sympathy, Curiosity, and Rivalry: The U.S. and China Since 1900 (H)
Description: This course offers a historical overview of the United States and China since 1900. Students will have the unique intellectual experience of looking at each country's recent history from the perspective of the other. More than diplomatic relations, it also covers the social and cultural experiences of both, particularly in areas where they inspire, impact on, and interact with each other.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 2890 Honors Experience in History
Prerequisites: Honors Program participation and concurrent enrollment in a designated HIST course.
Description: A supplemental Honors experience in History to partner concurrently with designated History courses. This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Honors Credit

HIST 3013 Ancient Egypt and Israel (H)
Description: The history of Egypt from prehistory through the New Kingdom, and ancient Israel from prehistory through the Persians.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3023 Ancient Greece (H)
Description: The Greek world from the Bronze Age through Alexander the Great with special emphasis on politics, culture and institutions of Classical Greece.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3033 Ancient Rome: The Republic (H)
Description: Political, social, cultural and economic history of the Roman Republic from the Etruscans to the death of Julius Caesar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3043 From the Garden of Eden to Babylon (H)
Description: From the birth of civilization to the end of the Persian Empire, this course examines the history, archaeology and cultures of the fertile crescent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3063 The Roman Empire (H)
Description: This empire provides a historical survey of the Roman Empire from the middle of the 1st century BCE through the middle of the 5th century CE. This course covers a range of interrelated themes and issues that shaped the everyday lives of Romans, including the importance of social hierarchies within and across civil affairs and family life; the various political structures and forms of governance within the empire; the dimensions of military life, conquests and expansion; economic realities; work and leisure; and various cultural aspects including the roles of religion and philosophy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3083 Modern Italy: Cultural Patrimony and National Identity (GH)
Description: This course will examine Italy's cultural patrimony and its role shaping the country's national identity and international reputation. Students will study the influence of Italy's artistic and architectural heritage on modern Italian society, global tourism, and international conservation policies. Among the topics explored will be Pompei and the western imagination, the Monuments Men during World War II, mass tourism in the city of Venice, and the competing interests of international, national, and local communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3093 Historical Geography of North America to 1800 (H)
Description: This course is an examination of the cultural geography of colonial North America from the earliest European contact with Native Americans to the end of the 18th Century. The course examines regional patterns of indigenous American Indian settlement, European exploration, trade, coloniatization, immigration, impacts upon indigenous societies, and the development of pre industrial economic regions. Students will gain an appreciation of the interactions of various indigenous, European, and African peoples in different environments in the colonial era. Same course as GEOG 3093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3113 Germany Since 1815 (GH)
Description: Creation of a centralized state in Germany; impact of World War I and the subsequent failure of the Weimar Republic; rise of national socialism, totalitarianism, and the Third Reich; German experience in WWII, repression of minorities, and the Holocaust; post-war Germany and modern reunification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3123 The History of Modern Africa (GH)
Description: The course will cover the history of Modern Africa from 1750 to the present. The class will begin with a general background and history of ancient and early modern Africa, and move forward with examinations of colonial and contemporary African culture, society, and politics. The course will have a particular focus on African perspectives on the West, and the effects of the slave trade, imperialism, and globalization on modern day Africa. Students will analyze many different types of sources including films, artwork, graphic novels, novels, and poetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3153 Russia to 1861 (H)
Description: Political, institutional, societal and economic development of Russia from the Kievan period to the Great Reforms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3163 Russia Since 1861 (GH)
Description: Modernizations of Russia in the 19th and 20th centuries. Great reforms and their effects and the 1917 revolutions and their consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3203 The Medieval World, 500-1500 (H)
Description: The society and culture of Europe, Byzantium and the Middle East, 500-1500. Emphasis on social, cultural, religious and political developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3233 Late Medieval World, 1000-1450 (H)
Description: The Late Middle Ages in Europe and its ties to the Middle East. Examines the period of the Black Death, Hundred Years War, early Renaissance, and the flourishing of new forms of government, religious life and social upheaval. Emphasis on social, cultural, religious and political developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3243 Renaissance, 1350-1517 (H)
Description: The development of the Renaissance from the Italian city-states to the New World. Political development, cultural innovation, and the role of disease in history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3253 Absolutism and Enlightenment, 1648-1789
Description: Political, economic, social, intellectual and religious transformation of Europe between the Peace of Westphalia and the French Revolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3263 Modern Europe, 1815-1914 (H)
Description: Examines the history of Europe from the end of Napoleon through the start of World War I. Emphasis on political revolutions, modern nationalism, industrialization, cultural movements, imperialism, and alliance diplomacy that transformed the Continent into a battleground in 1914.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3273 Modern Europe Since 1914 (GH)
Description: Origins, character and impact of the first World War; emergence and consequences of the totalitarian state; nature of political and intellectual terrorism. Effects of worldwide economic depression; dilemmas of modern democracies; political collapse of Europe as a consequence of World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3303 Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
Description: Examines Latin American migration to the United States through a case study approach. Considers US foreign policy, questions of labor and economic motivations, political violence and persecution, changes in immigration law, environmental issues, histories of the process of migration, and the formation of new identities and transnational communities and activism in the United States. Same course as AMST 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3323 Modern France, 1789-Present (GH)
Description: French politics, economy, society, and culture from the Revolution and rise of Napoleon to France's post-World War II "rebirth" and reckoning with its colonial past.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3333 History of the Second World War (GH)
Description: Problems leading to World War II with their international implications and consideration of the war years.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3343 World War I in Modern European Culture (GH)
Description: Analysis of the war as the principal event determining the course of twentieth century European history: battles, home fronts, personal, literary and artistic expression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3363 Popular Religion in the West, 1300-1700 (H)
Description: The study of the religious experience of both lay people and clergy between 1300 and 1700, when their religious worldview underwent fundamental challenges and changes. The effort to understand the relationship between the secular world and the supernatural will be explored through devotional ideas, practices and religious rituals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3373 Invasion and Identity: The Medieval English World: 700-1400 (H)
Description: Medieval English history through Britain's experience of invasion and settlement: includes the Vikings, Normans and England's conquest of Britain and parts of France. Emphasis on social, cultural, political and religious history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3383 Tudor-Stuart England (H)
Description: History of England from the War of the Roses through the coming of the House of Hanover in 1714. Development of the centralized state, parliamentary reaction, reorientation of the English society and economy and the English Reformation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3393 Modern England: 1714-Present (H)
Description: English history from the arrival of the house of Hanover through the decline of British influence following the Second World War. Political, social, and economic problems encountered as a result of the creation of the first modern industrialized state.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3403 East Asia to 1800 (H)
Description: Traditional Chinese civilization and its impact on Japan, Korea and Southeast Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3413 East Asia Since 1800 (GH)
Description: Impact of the Occident on China, Japan and Southeast Asia. Problems of trade and diplomacy; political and industrial transformation of Japan; revolutionary process in China; the rise of nationalism in Southeast Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3423 Modern Japan (GH)
Description: Modernization process in Japan since 1868.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3433 Modern China (GH)
Description: Response of China to the West since 1840, with stress on economic, social and intellectual currents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3443 Gender Relations in Chinese History (H)
Description: Men's and women's social, cultural, religious, political, economic, family, and sexual experiences in Chinese history; particularly women's own voices and efforts in pursuing their own goals and aspirations. Same course as GWST 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3453 Colonial Latin America (H)
Description: Considers the encounter between Indigenous peoples and Europeans in Latin America, analyzing the formation of race, class, religious, and gender identities. Focuses on Indigenous and European experiences with imperialism, 18th Century reforms, and independence movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3463 Modern Latin America (GH)
Description: Considers nation-state formation in Latin America, emphasizing 19th century dictators and liberal reform movements. Explores U.S. foreign policy, indigenous mobilizations, 20th century revolutions, and contemporary issues such as natural disasters, the drug trade, and immigration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3473 British Empire and Commonwealth of Nations (H)
Description: This course will examine the growth of the British Empire from the eighteenth century to decolonization in the twentieth century. The course will focus on Britain's colonies in Africa, Asia, and the Americas, and compare British imperialism to other global imperial powers. Topics will include historical studies of colonial literature, exploration, popular culture, medicine, education, military history, imperial anthropology, and gender.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3483 Reformation Europe, 1517-1648 (H)
Description: Development and impact of religious reform movements, overseas expansion, statebuilding, the Scientific Revolution, and the Thirty Years' War on European civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3503 Medieval Islamic History (H)
Description: Rise of Islam in Arabia and subsequent spread to Africa, Asia and Europe. Discussion of political, social, cultural and economic institutions established in the Middle Ages as well as diversity of Islamic and continuing non-Islamic traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3513 Modern Middle East (GH)
Description: Main political events, social institutions, cultural and economic developments, as well as various aspects of everyday life in the Middle East. Transformation of traditional society, imperialism and independence, Arab nationalism, Arab-Israeli conflict, the impact of oil, westernization, the rise of militant Islam, and the prospects of democratization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 3573 The Mongol Empire (H)
Description: Genghis Khan is infamous for destruction of his conquests, yet his empire grew to be the largest land empire in history, and sparked diplomatic and cultural contacts on a far wider scale than ever before. This course traces the Mongol Empire from Genghis himself to the legacy of the divided Mongol khanates. Attention will be paid to the Mongol Empire's institutional structure, political and cultural dynamics, contacts with Europe, and historians' methods for using primary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3593 Introduction to Museum and Cultural Studies (H)
Description: Historical and theoretical introduction to museum ethics, the function of the curator, and the hanging role of the museum. Same course as ART 3583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3603 Historians at Work
Description: This course introduces students to the history business. Students will develop skills in marketing, proposal writing, proposal evaluation, budgeting, project management, and interdisciplinary collaboration. These skills are valuable in a wide range of careers inside and outside the humanities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3610 Topics in United States History
Description: Special topics in United States history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3613 American Colonial Period to 1750 (H)
Description: European colonization of North America; political, social, cultural, intellectual, religious, and economic developments; Native American engagement with and resistance to colonialism; relations between English, French, and Spanish colonies; and the emergence of slavery in America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3623 Era of the American Revolution (H)
Description: Transition from British colonies to independent United States; important military, political, cultural, economic, social, and religious aspects of the American Revolution; how changes affected all people in America, including African Americans, Native Americans, and women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3633 Early National Period, 1787-1828 (H)
Description: This course covers U.S. history from the framing of the Constitution to the election of Andrew Jackson in 1828. The main focus on this course will be to understand and evaluate the various events, ideologies, and structures that shaped the political, social, economic, and cultural development of the United States in its first years of nationhood. Particular attention will be paid to the experiences, diverse identities, and contributions of Indigenous peoples, enslaved and free black Americans, and women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3643 Antebellum America, 1828-1850 (H)
Description: Major social, cultural, economic, and political developments of mid-nineteenth-century America including: Indian removal, early social reform the expansion of slavery, the growth of capitalism, settler colonialism in the West, and the origins of political sectionalism leading to disunion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3653 Civil War and Reconstruction, 1850-1877
Description: Causes, decisive events, personalities and consequences of the disruption and reunion of the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3663 U.S History 1877-1919 (H)
Description: The impact of industrialization upon American society and politics. America's rise to world power, the Progressive movement and World War I.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3673 United States History, 1919-45 (DH)
Description: The political, economic, social and cultural changes in the United States from 1919 to 1945, the 1920s, the Depression, the New Deal, WWII, and domestic impact of the war.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3683 United States History Since 1945 (DH)
Description: The political, social, and cultural history of the United States since World War II. Topics include the Cold War at home and abroad, the Civil Rights and other social movements, 1960s culture vs. counterculture, the Vietnam War, Watergate, Reagan's America, the War on Terror, and modern globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3693 The Modern West (H)
Description: This course will survey the political, economic, social, and cultural history of the twentieth- and twenty-first century American West. For generations, historians, politicians, and culture makers have grappled with the question of the significance of the West to American development and identity. This course lays the groundwork to understand the region's history, as well as grapple with the wide variety of peoples (domestically and globally) who have sought to locate meaning in the region for themselves and their experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3703 Oklahoma History (DH)
Description: Early exploration and establishment of Indian Territory; the rise and demise of the Five Indian Nations; and the organization and development of the 46th state to the present. Required of all candidates for teacher's licensure/certification in social studies. Previously offered as HIST 2323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3710 Topics in European History
Description: Special topics in European history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3713 Women in the American West (DH)
Description: Introduction to the history of women in the American West from pre-contact to present, with emphasis on cultural diversity, women's roles as economic and social partners, and the many ways women were active participants in western development. This course incorporates Oklahoma and public history using written documents, art, film, museum and archival materials, and local historical sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3753 Trans-Mississippi West (DH)
Description: Emergence of the modern West from Spanish and French settlement and exploration, the Rocky Mountain fur trade, the settlement of Texas, Oregon, California, and Utah, the mining, ranching and farming frontiers, the Indian Wars and transportation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3763 American Southwest (DH)
Description: Southwestern states of Texas, Arizona, New Mexico and California from the Spanish colonial period to the present. Mining, ranching, farming frontiers, Indian wars of the Apache, Comanche and other southwestern tribes, and the emergence of the modern Southwest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3773 The American South to 1860
Description: Social, political and industrial conditions in the South before the Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3793 Native American History (DH)
Description: Introduction to the history of Native American peoples from encounters with European colonists to the present, with an emphasis on tribal nationhood and sovereignty, war and diplomacy, treaty rights and federal policies, indigeneity in modern contexts, and a leadership in Indian Country.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3803 History of Food (H)
Description: This course offers an interdisciplinary examination of the history and culture of food production and consumption in the US with an emphasis on how US food ways relate to those of other countries. It examines such topics as: food and the formation of social bonds, food and identity, the cultural meaning of food ways, issues of justice and equality in food production and consumption, and how food cultures have developed over time and in relation to other societies. Same course as AMST 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3810 Topics in World History
Description: Special topics in world history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3843 War and Memory in America (H)
Description: Examines the ways in which Americans have remembered and commemorated war from the American Revolution to the Global War on Terror. Topics include the creation and perpetuation of memory from both soldiers and civilians, the portrayal of war in popular culture, and the challenges of commemorating and memorializing America's militant past. Same course as AMST 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3853 History of the North American Borderlands (DH)
Description: This class analyzes the histories of the US-Mexico, US-Canada, and Native American borderlands from the 16th century to the present. Topics include indigenous spaces and sovereignty, the establishment of colonial regimes, the formation of nation-states and changing notions of citizenship, immigration policies and experiences, intercultural and interracial communities and tensions, crime and smuggling, representations of the border in media and popular culture, and the political and economic relationships between the United States, Mexico, and Canada.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3863 Disability in America (DH)
Description: Examines the history of disability in American culture. Considers evolving ideas about disability and the status of disabled people in American society. Topics include disability and the law; eugenics; the disability rights movement; representations of disability in popular culture; and intersecting ideas about disability, race, gender, and class. Same course as AMST 3863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 3873 History of Health and Social Movements in the United States (H)
Description: This course is focused on the intersection of health and social movements in the U.S. from the late 18th century to the present. In this course students explore the historical role of health and social movements, their relationship with medical theory, politics, religion, culture, and economics, how American movements mobilized, co-evolved, and changed over time, and the role of women, people of color, and marginalized communities in health and social movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3883 History of Drugs, Policy, and Culture in the United States (H)
Description: This course explores the relationship between illicit and licit drug use, drug policy, and depiction of drug use and people who use drugs, producers, sellers, policy makers, and law enforcement in the news and cultural media in the United States from 1800 to the present. The course examines the history of chemical substances that alter the body, the evolution of local and national drug policy and agencies, and how culture and society have impacted drug policies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3890 Advanced Honors Experience in History
Prerequisites: Honors Program participation and concurrent enrollment in a designated HIST course.
Description: A supplemental Honors experience in History to partner concurrently with designated upper-division HIST courses. This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Honors Credit

HIST 3903 Introduction to the Study of History
Prerequisites: History major or consent of instructor.
Description: This course is an introduction to the study of history. It offers an overview of the development of the discipline, historiography, and the philosophy of history. Students learn about the methodology of history, types of historical problems, habits of thought necessary for the discipline, and methods such as research and writing. Previously offered as HIST 2013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3913 History of Medicine (H)
Description: Historical growth of medicine and its relationship to the society in which it develops. Scientific problems, cultural, religious and medicine.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3953 Earthly Powers: Politics and Religion in Modern Europe
Description: Examines the persistence of religiosity in modern Europe amidst secular and political challenges from the 18th century to the present. Topics include pilgrimage, the legal separation of church and state, religious persecution in the era of the World Wars, and struggles with pluralism in the 21st c.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 3963 Modern Empires and Revolutions (H)
Description: This course examines the intersection of European imperialism and the global spread of revolutionary ideas from 1789 to the present. It will cover topics ranging from the French Revolution, intellectual revolutions in science and anthropology, colonization in Africa and Asia, the Russian Revolution of 1917, and decolonization in the wake of World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 3980 Studies in History
Description: Special topics in history. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4033 Introduction to Public History (H)
Description: Introduction to the study and practice of Public History, including historic preservation, cultural resources management, museums, archival work, oral history and memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4053 History and the Law
Description: The course focuses on the origins and outcomes of the most pressing legal battles in present-day society. Students explore how scholars and communities use history to shape the creation, implementation, and interpretation of laws inside and outside the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4063 Historic Preservation
Description: Focuses on the United States and examines the history and theory of the preservation movement, the legal basis for preservation of the built environment and the methodology of preservation. No credit for students with credit in HIST 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4073 Digital Methods in History
Description: Introduction to the methods and practice of working with digital sources, creating digital content, basic foundations of software and metadata for digital archives, introduction to web design and database construction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4093 Oral History: Theory and Methodology
Description: This course is an interdisciplinary introduction to oral history methodology, theory, and professional practice. It examines how oral history projects are constructed and administered and archivally managed. The course will also explore the technologies involved in the collection of interviews, the reliability of memory and the utilization of oral histories in various forms of dissemination. Students will gain practical experience in oral history interviewing and related aspects of oral history, such as transcribing, editing, archiving, and publishing oral histories. May not be used for degree credit with HIST 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4103 Historical Geography of the United States (H)
Description: Examination of the spatial dynamics of frontier encounter and settlement, regional development, and cultural landscape evolution in the United States from pre-European to modern times. Same course as GEOG 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4113 Globalization and American Culture
Description: Transmission, reception, and influence of American culture in one or more of the following: Europe, Asia, Latin America, the Middle East. The cultural history of globalization and American culture. Same course as AMST 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History

HIST 4173 Black Intellectual History (DH)
Description: Examines the nature of black social and political thought from the early 18th to the mid-20th century and the contributions made by black intellectuals to discussions of race, citizenship and nationality. Emphasis is placed on topics of abolitionism, labor movements, populism, socialism, pan-Africanism, feminism, and the civil rights movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4193 The Body in American Culture (H)
Description: The body and its impact on American culture examined through a survey of diverse cultural productions and social practices. Examine the intersections of ideas of embodiment with discourse of race, class, gender, sexuality, disability, and nationalism. Same course as AMST 3653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4203 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital issues and how the criminal justice responds to these issues. Same course as AMST 4103 and SOC 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Society & Human Behavior

HIST 4253 U.S. Foreign Relations to 1945 (H)
Description: American experience in foreign relations from colonial times to World War II.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4273 U.S. Foreign Relations Since 1945 (H)
Description: Overview of the history of U.S. foreign relations from World War II to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4353 American Military History (H)
Description: Civil-military relations, the military implications of American foreign policy, and the impact of technological advances on warfare since colonial times.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4363 US History through Popular and Unpopular Music (DH)
Description: This course will explore how music – including folk, rock, jazz, vaudeville, country, blues, and hip-hop – makes history and history makes music. In doing so, this course will consider music's discursive power within the arenas of American social, cultural, gender, racial, class, and political struggles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4403 Sorcerers, Saints and Heretics: Religion in the Medieval World (H)
Description: Religious belief and practice in the medieval world, c. 500-1300. Examines the formation of major religions, the experience of religious minorities, the experience of interfaith communities, enduring superstitions and heresies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4413 Sex and Gender in the Medieval World (H)
Description: Historical attitudes toward sex and gender history in medieval Europe. Interdisciplinary approach also including cultural, social, economic and religious history. Same course as GWST 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4433 From Assassin's Creed to Witcher: Medievalism in the 21st Century World (HI)
Description: Assesses video game and film portrayals of the Middle Ages and medievalism. Through historiographical readings and critical analysis of modern media sources, examines the ways in which popular media depictions of the past weave fact with fiction, building on our common cultural narrative of "medieval-ish" worlds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4453 History and Film (H)
Description: Examines the ways in which historical events are made available to viewers through the medium of the cinema. The primary focus involves examining the relationship between historical events and the ways in which those events are depicted, commemorated, memorialized, remembered and misremembered in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4463 American Cultural History to 1865 (H)
Description: American society in nonpolitical aspects: sections, classes, national culture and social structure, immigration, education, religion, reform, world influences; ends with Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4483 American Cultural History Since 1865 (H)
Description: Continuation of HIST 4463; may be taken independently. Emphasis on nonpolitical aspects of American society and thought and on world influences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4493 Frontier in American Memory (H)
Description: Examination of the ways in which several American frontiers have been remembered, especially in popular culture. These frontiers include those informed by imagery related to Euro-American pioneers, women, people of color, and the tribal peoples of the American West.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4513 Economic History of the US (S)
Description: This course examines American economic history from the pre-colonial period to the present. Attention will be paid to important economic thinkers like Alexander Hamilton, Thomas Jefferson, W.E.B. DuBois, Henry George, Milton Friedman, and Stephanie Kelton. Another focus will be on understanding and evaluating critical debates about economic history and the differing methodologies that economists and historians utilize to shape their interpretations and arguments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Society & Human Behavior

HIST 4523 American Environmental History (H)
Description: Examination of the changing ways society (from Native American to post-industrial) has defined, interpreted, valued, and used nature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4543 Vietnam War (GH)
Description: Origins of the Vietnamese struggle against colonialism, international policy, making of military strategy and diplomacy, anti-war movement, impact of the war on soldiers and civilians, reflections of the war in popular memory and culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4553 Gender in America (DH)
Description: Cultural, societal and political reflections of American men and women from the colonial era to the present. Examination of the women's movements and their opponents. Exploration of changing notions of masculinity and femininity. Same course as AMST 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

HIST 4563 Cold War (GH)
Description: International perspectives on the origins, conflicts and ideologies of the Cold War, the nuclear arms race, impact on daily life, cultural reflections, the collapse of communism, victors and losers in the post Cold War world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4593 America in International Perspective (H)
Prerequisites: HIST 1103 or lower-division survey course in U.S. History, any period.
Description: A transnational interpretation of American history from the colonial era to the present day. Uses a variety of interdisciplinary sources to place the history of the United States within a comparative, global framework. Same course as AMST 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4633 Religion in Early America (H)
Description: A study of religious life and its history in early America, beginning with its earliest European settlers, Native Americans, and continuing through the 1800s. Same course as REL 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4723 Jerusalem: City and Symbol Across Millennia (H)
Description: This course explores the history of Jerusalem as a city from the earliest records of its existence in the Ancient Near East to current events, as well as the meanings attached to Jerusalem as a symbol by Jews, Christians, and Muslims living around the world, from ancient scriptures to contemporary America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4753 Muslim-Christian Relations (H)
Description: Exploration of commonalities and differences between Christianity and Islam, and the history of cooperation and conflict between Muslims and Christians, from Arabia in Muhammad's time to worldwide in the twenty-first century. Themes include mutual understanding and misunderstanding, conversion, rulers and subjects, discrimination, and dialogue. Same course as REL 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures

HIST 4883 History of Modern Southeast Asia (GH)
Description: This course will focus on the history of Southeast Asia from the late 18th century to the present day. We will examine how the histories of these nations have been connected politically, culturally, and economically. The course will be framed around specific themes such as global trade, religious diffusion, imperialism, ideas of "tradition", nationalism, and globalization in modern Asia. The class will deal extensively with the present-day legacy of these historical processes in the region.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: History
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

HIST 4903 Senior Seminar
Prerequisites: HIST 3903.
Description: An introduction to historical research for senior history majors. Students will be required to select, research, and write a seminar paper based on primary documents and use standard footnoting and bibliographical methods. Previously offered as HIST 3973.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4980 Topics in History
Description: For students interested in pursuing either a research or a reading project. Open to students in history and to others by permission of instructor. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4990 Undergraduate Internship
Prerequisites: Consent of instructor.
Description: History related internship experience designed to introduce majors to career possibilities. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in history.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: History

HIST 5000 Thesis
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5021 Teaching History at the College Level
Prerequisites: Graduate standing or permission of instructor required.
Description: Survey of objectives and methods in the teaching of history at the college level.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5023 Historical Methods
Prerequisites: Graduate student standing or permission of instructor required.
Description: Methods of historical research and the writing of history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5030 Public History Internship
Prerequisites: Graduate student standing or permission of instructor required.
Description: Supervised practical experience in public history. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5033 Introduction to Public History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to theory and practice of public history. Includes public history careers, public history as a field in the discipline, and the public perception and use of the past.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5053 Museum Studies
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to museum theory and practice, especially as it pertains to history museums and sites. No credit for students with credit in HIST 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5063 Historic Preservation
Prerequisites: Graduate student standing or permission of instructor required.
Description: Focuses on the United States and examines the history and theory of the preservation movement, the legal basis for preservation of the built environment, and the methodology of preservation. No credit for students with credit in HIST 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5073 Digital Methods in History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Introduction to the methods and practice of working with digital sources, creating digital content, basic foundations of software and metadata for digital archives, introduction to web design and database construction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5093 Oral History: Theory and Methodology
Description: This course is an interdisciplinary introduction to oral history methodology, theory, and professional practice. It examines how oral history projects are constructed and administered and archivally managed. The course will also explore the technologies involved in the collection of interviews, the reliability of memory and the utilization of oral histories in various forms of dissemination. Students will gain practical experience in oral history interviewing and related aspects of oral history, such as transcribing, editing, archiving, and publishing oral histories. May not be used for degree credit with HIST 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 5120 Reading Seminar in American History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Historiographical and bibliographical study of special areas of American history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5140 Reading Seminar in European and World History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Historiographical and bibliographical study of special areas of European and World history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5220 Research Seminar in American History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Research in selected problems in American history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 5240 Research Seminar in European and World History
Prerequisites: Graduate standing or permission of instructor required.
Description: Research in selected problems in European and World history. Offered for fixed credit, 3 credit hours, maximum of 24 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6000 Doctoral Dissertation
Prerequisites: Admission to candidacy.
Description: Advanced research in history. Offered for variable credit, 1-19 credit hours, maximum of 30 credit hours.
Credit hours: 1-19
Contact hours: Contact: 1-19 Other: 1-19
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6023 Historiography
Prerequisites: Graduate student standing or permission of instructor required.
Description: Major writers of history, historical schools and patterns of developments in historical interpretation from the earliest times to present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

HIST 6100 Directed Readings in History
Prerequisites: Graduate student standing or permission of instructor required.
Description: Readings in selected topics in history to develop factual knowledge, analytical skills, and interpretive understanding. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: History

HIST 6130 Graduate Studies in History
Prerequisites: Graduate student standing.
Description: Graduate-level work under taken in association with upper-division lecture courses. Added component ordinarily entails a graduate-level research paper or historiographical essay of substantial length. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: History

Undergraduate Programs

- History, BA (p. 1451)
- History: Business Essentials, BA (p. 1455)
- History: Pre-Law, BA (p. 1459)

Graduate Programs

The Department of History offers programs leading to the MA and PhD in history. In addition to the general Graduate College requirements, the candidate for the MA or PhD degree with a major in history is expected to have completed approximately thirty semester credit hours (including eighteen upper-division hours) of undergraduate history courses, with an undergraduate grade-point average of at least 3.00 on a 4.00 scale.

The Master of Arts Degree

Admission to the MA program requires submission of scores for the verbal, quantitative, and analytical writing sections of the Graduate

Record Examination. Candidates for the MA degree choose one of two alternative plans. Requirements common to both plans include completion of a course (HIST 5023 Historical Methods) in historical methods of research and writing, research and reading seminars, and a thesis. Students must maintain at least a 3.00 ("B") grade-point average. An advisory committee will be appointed for each student during the second semester of enrollment. The two plans are designed for different careers, and the distinctive requirements of each are summarized below:

Plan I

(This plan is recommended for those planning to continue graduate studies at the doctoral level.) Students must complete a minimum of thirty hours of graduate courses in two fields. These hours must include at least twelve hours of seminar (including at least one research seminar), (HIST 5023 Historical Methods), and six hours of thesis (HIST 5000 Thesis). Students must take at least twelve hours in the major field and at least nine in a minor field. With the consent of their advisory committee, students may take course(s) at the graduate level in a related discipline.

Fields of study include:

- United States
- Europe
- World (Africa, Asia, Ancient World, Latin America, and/or Middle East)

Students must demonstrate satisfactory reading knowledge of one foreign language.

Plan II

(Public History.) Students must complete a minimum of thirty-six hours of graduate courses. These hours must include the following:

Code	Title	Hours
At least nine hours of seminar (reading and/or research)		9
HIST 5023	Historical Methods	3
HIST 5033	Introduction to Public History	3
HIST 5030	Public History Internship	3-6
HIST 5000	Thesis	6

Normally, students will also take HIST 5053 Museum Studies and/or HIST 5063 Historic Preservation. With the approval of the student's advisory committee, as many as nine of these hours may be taken in related disciplines. The foreign language requirement required of Plan I students is optional, but a student's advisory committee may require foreign language proficiency for certain topics.

The Doctor of Philosophy Degree

Admission to the PhD program requires submission of scores for the verbal, quantitative, and analytical writing sections of the Graduate Record Examination. Applicants must also meet Oklahoma State University requirements for the MA degree in history, with preference for applicants having at least a 3.50 grade-point-average (on a 4.00 scale).

The PhD program requires at least sixty hours beyond the MA degree. Students must select 3 fields of study—a general field (at least fifteen hours), a major field (at least twelve hours), and a minor field (at least nine hours) from the options shown below. The minor fields must not duplicate the general or major fields. To be admitted to candidacy, students must pass comprehensive examinations, demonstrate a reading knowledge of one foreign language, have an approved dissertation proposal, and submit a Plan of Study to the Graduate College before writing a dissertation.

All PhD students must take HIST 6023 Historiography and HIST 5021 Teaching History at the College Level, and at least eighteen hours of seminar, including at least three hours of research seminar. Students without a MA thesis must take HIST 5023 Historical Methods. With the consent of their advisory committee, students may apply graduate course work taken outside the History Department to their major field.

General fields

- United States
- Europe to 1789
- Europe after 1789

Major fields (including but not limited to)

- United States West
- Native North America
- Medicine, Environment, and Food
- Religion
- Gender
- War and society
- Race and ethnicity

Minor fields

- North America
- Europe
- Ancient World
- Middle East
- Asia
- Latin America
- Public History

Upon the recommendation of the departmental Director of Graduate Studies, a PhD advisory committee of no fewer than four voting members will be appointed by the Dean of the Graduate College. This committee consists of members of the OSU Graduate Faculty (at least one from each of the examination fields and one from outside the History Department), including the student's major advisor, who acts as a chairperson and must have PhD chairing privileges.

Minors

- Ancient and Medieval Studies (AAMS), Minor (p. 1449)
- History (HIST), Minor (p. 1450)

Faculty

Brian Hosmer, PhD—Professor and Head
Regents Professor: Jason Lavery, PhD; James L. Huston, PhD (emeritus)
Professors: Joseph F. Byrnes, PhD (emeritus); David M. D'Andrea, PhD; John M. Kinder, PhD; Michael F. Logan, PhD (emeritus); L. George Moses, PhD (emeritus); Richard C. Rohrs, PhD (emeritus); Tonia Sharlach, PhD; Michael M. Smith, PhD (emeritus); Elizabeth A. Williams, PhD (emeritus)
Associate Professors: Laura J. Arata, PhD; Richard J. Boles, PhD; William S. Bryans, PhD (emeritus); Thomas A. Carlson, PhD; Yongtao Du, PhD; Sarah Foss, PhD; Emily Graham, PhD; Holly Karibo, PhD; Doug Miller, PhD; Lesley A. Rimmel, PhD (emeritus); Matthew Schauer, PhD; Brandy T. Wells, PhD

Assistant Professors: Francisco Beltrán, PhD; Merle Eisenberg, PhD; Mette Flynt, PhD; Sarah Griswold, PhD; Rebecca Kaplan, PhD; Kallie Kosc, PhD
Teaching Associate Professor: Jennifer Murray, PhD
Teaching Assistant Professor: Gregory Kosc, PhD; Matthew J. Pereira, PhD

Ancient and Medieval Studies (AAMS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sarah Mutschelknaus, 101B SSH, 405-744-8197

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C"
Total Hours: 18

Code	Title	Hours
Minor Requirements		
12 hours must be upper-division		
At least 3 hours must be non-Western		
Select 18 credit hours from at least 3 disciplinary areas:		18
ART 1503	Art History Survey I (H)	
ART 3603	History of Classical Art (H)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4693	Gender And Visual Culture	
ENGL 2543	Survey of British Literature I (H)	
ENGL 3123	Mythology (H)	
ENGL 3163	Literatures of the Ancient World (H)	
ENGL 4003	History of the English Language	
ENGL 4100	Studies in Medieval British Literature	
ENGL 4223	Introduction to Old English	
ENGL 4600	Studies in Chaucer or Milton	
ENGL 4700	Single Author or Work Pre-1800	
GREK 1713	Elementary Classical Greek I	
GREK 1813	Elementary Classical Greek II	
GREK 2713	Elementary Classical Greek III	
GREK 2813	Intermediate Readings	
GREK 3330	Advanced Readings	
GREK 4113	Greek Literature in Translation	
HIST 1613	Western Civilization to 1500 (H)	
HIST 1713	Survey of Eastern Civilization (H)	
HIST 1813	World History from Ancient Times to 1500 (H)	
HIST 3013	Ancient Egypt and Israel (H)	
HIST 3023	Ancient Greece (H)	
HIST 3043	From the Garden of Eden to Babylon (H)	
HIST 3203	The Medieval World, 500-1500 (H)	
HIST 3233	Late Medieval World, 1000-1450 (H)	
HIST 3373	Invasion and Identity: The Medieval English World: 700-1400 (H)	
HIST 3503	Medieval Islamic History (H)	
HIST 3573	The Mongol Empire (H)	
HIST 3980	Studies in History (must be "Religion and Mythology")	
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)	
HIST 4413	Sex and Gender in the Medieval World (H)	
HONR 2413	The Ancient World (H)	
HONR 2423	The Middle Ages and Renaissance (H)	
LATN 1713	Elementary Latin I	
LATN 1813	Elementary Latin II	
LATN 2713	Elementary Latin III	
LATN 2813	Intermediate Readings	
LATN 3123	Classical Mythology	
LATN 3223	Love and Hate in Greece and Rome	
LATN 3330	Advanced Readings in Latin	
LATN 4113	Latin Literature in Translation	
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3943	Asian Philosophy (HI)	
REL 2013	The Old Testament and its Study (H)	
REL 2023	The New Testament and Its Study (H)	
REL 3223	Jesus: Teachings, History and Interpretation (H)	
REL 3243	Origins of the Christian Church (H)	
REL 3423	Classic Christian Writings (H)	
Other courses that are at least 50% focused on the Ancient World and/or Middle Ages may be used with consent of advisor.		
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

History (HIST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sarah Mutschelknaus, 101B SSH, 405-744-8197

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
18 hours HIST, 12 of which must be upper-division		18

Choose from HIST (p. 559) courses.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

History, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one course from each group:		
Group 1:		
HIST 1613	Western Civilization to 1500 (H)	3
or HIST 1713	Survey of Eastern Civilization (H)	
or HIST 1813	World History from Ancient Times to 1500 (H)	
Group 2:		
HIST 1623	Western Civilization after 1500 (H)	3
or HIST 1823	World History 1500 to Present (H)	
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all U/D HIST courses		
HIST 3903	Introduction to the Study of History	3
HIST 4903	Senior Seminar (For students whose research focus is U.S. History, AMST 4973 may be used.)	3
or HIST 4993	Senior Honors Thesis	
30 hours to include at least 2 courses (6 hours) from each of the 3 areas below. Only 9 hours may be 2000-level.		30
HIST 3980 Studies in History, and HIST 4980 Topics in History (9 hours maximum) or HIST 4993 Senior Honors Thesis may be substituted in one or more of the areas with consent of advisor.		
American History:		
HIST 2023	History of the Present (H) [1]	
HIST 2043	Ghosts and Graveyards: History of Dark Tourism (H)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 2523	Dust Bowl (H)	
HIST 3093	Historical Geography of North America to 1800 (H)	
HIST 2133	African Diaspora History(DH)	
HIST 3333	History of the Second World War (GH) [1]	
HIST 3593	Introduction to Museum and Cultural Studies (H)	
HIST 3603	Historians at Work	
HIST 3610	Topics in United States History	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	

HIST 3683	United States History Since 1945 (DH)
HIST 3693	The Modern West (H)
HIST 3703	Oklahoma History (DH)
HIST 3713	Women in the American West (DH)
HIST 3753	Trans-Mississippi West (DH)
HIST 3763	American Southwest (DH)
HIST 3773	The American South to 1860
HIST 3793	Native American History (DH)
HIST 3803	History of Food (H) [1]
HIST 3843	War and Memory in America (H)
HIST 3853	History of the North American Borderlands (DH)
HIST 3863	Disability in America (DH)
HIST 3873	History of Health and Social Movements in the United States (H)
HIST 3883	History of Drugs, Policy, and Culture in the United States (H)
HIST 4033	Introduction to Public History (H)
HIST 4053	History and the Law [1]
HIST 4063	Historic Preservation [1]
HIST 4073	Digital Methods in History [1]
HIST 4093	Oral History: Theory and Methodology
HIST 4103	Historical Geography of the United States (H)
HIST 2153	African American History, 1619-1865 (DH)
HIST 2163	African American History, 1865-Present (DH)
HIST 4173	Black Intellectual History (DH)
HIST 4193	The Body in American Culture (H)
HIST 4203	The Death Penalty in America (S)
HIST 4253	U.S. Foreign Relations to 1945 (H)
HIST 4273	U.S. Foreign Relations Since 1945 (H)
HIST 4353	American Military History (H)
HIST 4363	US History through Popular and Unpopular Music (DH)
HIST 4453	History and Film (H) [1]
HIST 4463	American Cultural History to 1865 (H)
HIST 4483	American Cultural History Since 1865 (H)
HIST 4493	Frontier in American Memory (H)
HIST 4513	Economic History of the US (S)
HIST 4523	American Environmental History (H)
HIST 4543	Vietnam War (GH) [1]
HIST 4553	Gender in America (DH)
HIST 4563	Cold War (GH) [1]
HIST 4593	America in International Perspective (H) [1]
HIST 4633	Religion in Early America (H)
European History:	
HIST 3023	Ancient Greece (H)
HIST 3063	The Roman Empire (H)
HIST 3083	Modern Italy: Cultural Patrimony and National Identity (GH)
HIST 3113	Germany Since 1815 (GH)
HIST 3153	Russia to 1861 (H)
HIST 3163	Russia Since 1861 (GH)
HIST 3233	Late Medieval World, 1000-1450 (H)
HIST 3243	Renaissance, 1350-1517 (H)
HIST 3253	Absolutism and Enlightenment, 1648-1789
HIST 3263	Modern Europe, 1815-1914 (H)
HIST 3273	Modern Europe Since 1914 (GH)
HIST 3323	Modern France, 1789-Present (GH)
HIST 3343	World War I in Modern European Culture (GH)
HIST 3363	Popular Religion in the West, 1300-1700 (H)
HIST 3373	Invasion and Identity: The Medieval English World: 700-1400 (H)
HIST 3383	Tudor-Stuart England (H)
HIST 3393	Modern England: 1714-Present (H)
HIST 3473	British Empire and Commonwealth of Nations (H)
HIST 3483	Reformation Europe, 1517-1648 (H)
HIST 3710	Topics in European History
HIST 3913	History of Medicine (H) [1]
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe
HIST 3963	Modern Empires and Revolutions (H)
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)
HIST 4413	Sex and Gender in the Medieval World (H)
World History:	
HIST 2313	Heroes and Wonders of the Ancient World (H)
HIST 2713	Sympathy, Curiosity, and Rivalry: The U.S. and China Since 1900 (H)
HIST 3013	Ancient Egypt and Israel (H)
HIST 3043	From the Garden of Eden to Babylon (H)
HIST 3123	The History of Modern Africa (GH)
HIST 3203	The Medieval World, 500-1500 (H)
HIST 3303	Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
HIST 3403	East Asia to 1800 (H)
HIST 3413	East Asia Since 1800 (GH)
HIST 3423	Modern Japan (GH)
HIST 3433	Modern China (GH)
HIST 3443	Gender Relations in Chinese History (H)
HIST 3453	Colonial Latin America (H)
HIST 3463	Modern Latin America (GH)
HIST 3503	Medieval Islamic History (H)
HIST 3513	Modern Middle East (GH)
HIST 3573	The Mongol Empire (H)
HIST 3810	Topics in World History
HIST 4723	Jerusalem: City and Symbol Across Millennia (H)
HIST 4753	Muslim-Christian Relations (H)
HIST 4883	History of Modern Southeast Asia (GH)
Select 12 hours upper-division courses from the following related prefixes, or others with consent of advisor:	12

AFAM, AMST, AMIS, ANTH, ART, ECON, ENGL, FLL (and any foreign language), GEOG, GWST, PHIL, POLS, PSYC, REL, SOC.	
For students interested in teaching, EDTC 3123, EPSY 3213, and SCFD 3223 may be used.	
Hours Subtotal	**48**
Electives	
Select 10 hours	10
May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
Hours Subtotal	**10**
Total Hours	**120**

[1]

These courses have geographic flexibility and may be used in any of the three areas (American History, European History, or World History) with consent of advisor.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493	American History Since 1865 (DH)	3
or HIST 1483	or American History to 1865 (H)	
or HIST 1103	or Survey of American History	
General Education courses		8
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
HIST 1613	Western Civilization to 1500 (H)	3
or HIST 1623	or Western Civilization after 1500 (H)	
or HIST 1713	or Survey of Eastern Civilization (H)	
or HIST 1813	or World History from Ancient Times to 1500 (H)	
or HIST 1823	or World History 1500 to Present (H)	
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
HIST 1623	Western Civilization after 1500 (H)	3
or HIST 1613	or Western Civilization to 1500 (H)	
or HIST 1713	or Survey of Eastern Civilization (H)	
or HIST 1813	or World History from Ancient Times to 1500 (H)	
or HIST 1823	or World History 1500 to Present (H)	
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major and College courses		12
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
HIST 3903	Introduction to the Study of History	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
HIST 4903	Senior Seminar	3
or HIST 4993	or Senior Honors Thesis	
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

History: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History [1]	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher excluding MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one course from each group:		
Group 1:		
HIST 1613	Western Civilization to 1500 (H)	3
or HIST 1713	Survey of Eastern Civilization (H)	
or HIST 1813	World History from Ancient Times to 1500 (H)	
Group 2:		
HIST 1623	Western Civilization after 1500 (H)	3
or HIST 1823	World History 1500 to Present (H)	
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course.		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Languages		
(See note 3.)		9
Non-Western Studies		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50; Minimum grade of "C" in all U/D HIST courses.		
HIST 3903	Introduction to the Study of History	3
HIST 4903	Senior Seminar (For students whose research focus is U.S. History, AMST 4973 may be used.)	3
or HIST 4993	Senior Honors Thesis	
30 hours to include at least 2 courses (6 hours) from each of the 3 areas below. Only 9 hours may be 2000-level.		30
American History:		
HIST 2023	History of the Present (H) [1]	
HIST 2043	Ghosts and Graveyards: History of Dark Tourism (H)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 2523	Dust Bowl (H)	
HIST 3093	Historical Geography of North America to 1800 (H)	
HIST 2133	African Diaspora History(DH)	
HIST 3333	History of the Second World War (GH) [1]	
HIST 3593	Introduction to Museum and Cultural Studies (H)	
HIST 3603	Historians at Work	
HIST 3610	Topics in United States History	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
HIST 3693	The Modern West (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3713	Women in the American West (DH)	

HIST 3753	Trans-Mississippi West (DH)
HIST 3763	American Southwest (DH)
HIST 3773	The American South to 1860
HIST 3793	Native American History (DH)
HIST 3803	History of Food (H) [1]
HIST 3843	War and Memory in America (H)
HIST 3853	History of the North American Borderlands (DH)
HIST 3863	Disability in America (DH)
HIST 3873	History of Health and Social Movements in the United States (H)
HIST 3883	History of Drugs, Policy, and Culture in the United States (H)
HIST 4033	Introduction to Public History (H)
HIST 4053	History and the Law [1]
HIST 4063	Historic Preservation
HIST 4073	Digital Methods in History
HIST 4093	Oral History: Theory and Methodology
HIST 4103	Historical Geography of the United States (H)
HIST 2153	African American History, 1619-1865 (DH)
HIST 2163	African American History, 1865-Present (DH)
HIST 4173	Black Intellectual History (DH)
HIST 4193	The Body in American Culture (H)
HIST 4203	The Death Penalty in America (S)
HIST 4253	U.S. Foreign Relations to 1945 (H)
HIST 4273	U.S. Foreign Relations Since 1945 (H)
HIST 4353	American Military History (H)
HIST 4363	US History through Popular and Unpopular Music (DH)
HIST 4453	History and Film (H)
HIST 4463	American Cultural History to 1865 (H)
HIST 4483	American Cultural History Since 1865 (H)
HIST 4493	Frontier in American Memory (H)
HIST 4513	Economic History of the US (S)
HIST 4523	American Environmental History (H)
HIST 4543	Vietnam War (GH)
HIST 4553	Gender in America (DH)
HIST 4563	Cold War (GH)
HIST 4593	America in International Perspective (H)
HIST 4633	Religion in Early America (H)
European History:	
HIST 3023	Ancient Greece (H)
HIST 3063	The Roman Empire (H)
HIST 3083	Modern Italy: Cultural Patrimony and National Identity (GH)
HIST 3113	Germany Since 1815 (GH)
HIST 3153	Russia to 1861 (H)
HIST 3163	Russia Since 1861 (GH)
HIST 3233	Late Medieval World, 1000-1450 (H)
HIST 3243	Renaissance, 1350-1517 (H)
HIST 3253	Absolutism and Enlightenment, 1648-1789
HIST 3263	Modern Europe, 1815-1914 (H)
HIST 3273	Modern Europe Since 1914 (GH)
HIST 3323	Modern France, 1789-Present (GH)
HIST 3343	World War I in Modern European Culture (GH)
HIST 3363	Popular Religion in the West, 1300-1700 (H)
HIST 3373	Invasion and Identity: The Medieval English World: 700-1400 (H)
HIST 3383	Tudor-Stuart England (H)
HIST 3393	Modern England: 1714-Present (H)
HIST 3473	British Empire and Commonwealth of Nations (H)
HIST 3483	Reformation Europe, 1517-1648 (H)
HIST 3710	Topics in European History
HIST 3913	History of Medicine (H) [1]
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe
HIST 3963	Modern Empires and Revolutions (H)
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)
HIST 4413	Sex and Gender in the Medieval World (H)
World History:	
HIST 2313	Heroes and Wonders of the Ancient World (H)
HIST 2713	Sympathy, Curiosity, and Rivalry: The U.S. and China Since 1900 (H)
HIST 3013	Ancient Egypt and Israel (H)
HIST 3043	From the Garden of Eden to Babylon (H)
HIST 3123	The History of Modern Africa (GH)
HIST 3203	The Medieval World, 500-1500 (H)
HIST 3303	Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
HIST 3403	East Asia to 1800 (H)
HIST 3413	East Asia Since 1800 (GH)
HIST 3423	Modern Japan (GH)
HIST 3433	Modern China (GH)
HIST 3443	Gender Relations in Chinese History (H)
HIST 3453	Colonial Latin America (H)
HIST 3463	Modern Latin America (GH)
HIST 3503	Medieval Islamic History (H)
HIST 3513	Modern Middle East (GH)
HIST 3573	The Mongol Empire (H)
HIST 3810	Topics in World History
HIST 4723	Jerusalem: City and Symbol Across Millennia (H)
HIST 4753	Muslim-Christian Relations (H)
HIST 4883	History of Modern Southeast Asia (GH)

HIST 3980 and HIST 4980 (9 hours maximum) or HIST 4993 may be substituted in one or more of the above areas with consent of advisor.

12 hours business essentials:		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3

MKTG 3213	Marketing (S)	3
3 hours from the following:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**48**
Electives		**10**
May need to include 6 hours from upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**10**
Total Hours		**120**

[1]

Students with prior credit in HIST 1103 may not earn credit in HIST 1483 or HIST 1493.

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493	American History Since 1865 (DH)	3
or HIST 1483	or American History to 1865 (H)	
or HIST 1103	or Survey of American History	
General Education courses		8
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
HIST 1613	Western Civilization to 1500 (H)	3
or HIST 1623	or Western Civilization after 1500 (H)	
or HIST 1713	or Survey of Eastern Civilization (H)	
or HIST 1813	or World History from Ancient Times to 1500 (H)	
or HIST 1823	or World History 1500 to Present (H)	
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
HIST 1623	Western Civilization after 1500 (H)	3
or HIST 1613	or Western Civilization to 1500 (H)	
or HIST 1713	or Survey of Eastern Civilization (H)	
or HIST 1813	or World History from Ancient Times to 1500 (H)	
or HIST 1823	or World History 1500 to Present (H)	
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major and College courses		12
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
HIST 3903	Introduction to the Study of History	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
HIST 4903	Senior Seminar	3
or HIST 4993	or Senior Honors Thesis	
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

History: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one course from each group:		
Group 1:		
HIST 1613	Western Civilization to 1500 (H)	3
or HIST 1713	Survey of Eastern Civilization (H)	
or HIST 1813	World History from Ancient Times to 1500 (H)	
Group 2:		
HIST 1623	Western Civilization after 1500 (H)	3
or HIST 1823	World History 1500 to Present (H)	
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		
PHIL 1313	Logic and Critical Thinking (Q)	3
Foreign Language		
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all U/D HIST courses		
HIST 3903	Introduction to the Study of History	3
HIST 4903	Senior Seminar (For students whose research focus is U.S. History, AMST 4973 may be used.)	3
or HIST 4993	Senior Honors Thesis	
30 hours to include at least 2 courses (6 hours) from each of the 3 areas below. Only 9 hours may be 2000-level.		30
HIST 3980 Studies in History, and HIST 4980 Topics in History (9 hours maximum) or HIST 4993 Senior Honors Thesis may be substituted in one or more of the areas with consent of advisor.		
American History		
HIST 2023	History of the Present (H) [1]	
HIST 2043	Ghosts and Graveyards: History of Dark Tourism (H)	
HIST 2333	American Thought and Culture: Survey (H)	
HIST 2343	Religion in America (DH)	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 2523	Dust Bowl (H)	
HIST 3093	Historical Geography of North America to 1800 (H)	
HIST 3703	Oklahoma History (DH)	
HIST 3333	History of the Second World War (GH) [1]	
HIST 2133	African Diaspora History(DH)	
HIST 3593	Introduction to Museum and Cultural Studies (H)	
HIST 3603	Historians at Work	
HIST 3610	Topics in United States History	
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3633	Early National Period, 1787-1828 (H)	
HIST 3643	Antebellum America, 1828-1850 (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3663	U.S History 1877-1919 (H)	

HIST 3673	United States History, 1919-45 (DH)
HIST 3683	United States History Since 1945 (DH)
HIST 3693	The Modern West (H)
HIST 3713	Women in the American West (DH)
HIST 3753	Trans-Mississippi West (DH)
HIST 3763	American Southwest (DH)
HIST 3773	The American South to 1860
HIST 3793	Native American History (DH)
HIST 3803	History of Food (H) [1]
HIST 3843	War and Memory in America (H)
HIST 3853	History of the North American Borderlands (DH)
HIST 3863	Disability in America (DH)
HIST 3873	History of Health and Social Movements in the United States (H)
HIST 3883	History of Drugs, Policy, and Culture in the United States (H)
HIST 4033	Introduction to Public History (H)
HIST 4053	History and the Law [1]
HIST 4063	Historic Preservation [1]
HIST 4073	Digital Methods in History [1]
HIST 4093	Oral History: Theory and Methodology
HIST 4103	Historical Geography of the United States (H)
HIST 2153	African American History, 1619-1865 (DH)
HIST 2163	African American History, 1865-Present (DH)
HIST 4173	Black Intellectual History (DH)
HIST 4193	The Body in American Culture (H)
HIST 4203	The Death Penalty in America (S)
HIST 4253	U.S. Foreign Relations to 1945 (H)
HIST 4273	U.S. Foreign Relations Since 1945 (H)
HIST 4353	American Military History (H)
HIST 4363	US History through Popular and Unpopular Music (DH)
HIST 4453	History and Film (H) [1]
HIST 4463	American Cultural History to 1865 (H)
HIST 4483	American Cultural History Since 1865 (H)
HIST 4493	Frontier in American Memory (H)
HIST 4513	Economic History of the US (S)
HIST 4523	American Environmental History (H)
HIST 4543	Vietnam War (GH) [1]
HIST 4553	Gender in America (DH)
HIST 4563	Cold War (GH) [1]
HIST 4593	America in International Perspective (H) [1]
HIST 4633	Religion in Early America (H)
European History	
HIST 3023	Ancient Greece (H)
HIST 3063	The Roman Empire (H)
HIST 3083	Modern Italy: Cultural Patrimony and National Identity (GH)
HIST 3113	Germany Since 1815 (GH)
HIST 3153	Russia to 1861 (H)
HIST 3163	Russia Since 1861 (GH)
HIST 3233	Late Medieval World, 1000-1450 (H)
HIST 3243	Renaissance, 1350-1517 (H)
HIST 3253	Absolutism and Enlightenment, 1648-1789
HIST 3263	Modern Europe, 1815-1914 (H)
HIST 3273	Modern Europe Since 1914 (GH)
HIST 3323	Modern France, 1789-Present (GH)
HIST 3343	World War I in Modern European Culture (GH)
HIST 3363	Popular Religion in the West, 1300-1700 (H)
HIST 3373	Invasion and Identity: The Medieval English World: 700-1400 (H)
HIST 3383	Tudor-Stuart England (H)
HIST 3393	Modern England: 1714-Present (H)
HIST 3473	British Empire and Commonwealth of Nations (H)
HIST 3483	Reformation Europe, 1517-1648 (H)
HIST 3710	Topics in European History
HIST 3913	History of Medicine (H) [1]
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe
HIST 3963	Modern Empires and Revolutions (H)
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)
HIST 4413	Sex and Gender in the Medieval World (H)
World History	
HIST 2313	Heroes and Wonders of the Ancient World (H)
HIST 2713	Sympathy, Curiosity, and Rivalry: The U.S. and China Since 1900 (H)
HIST 3013	Ancient Egypt and Israel (H)
HIST 3043	From the Garden of Eden to Babylon (H)
HIST 3123	The History of Modern Africa (GH)
HIST 3203	The Medieval World, 500-1500 (H)
HIST 3303	Nations on the Move: Latin American Migration and Latinx Communities in the US (DH)
HIST 3403	East Asia to 1800 (H)
HIST 3413	East Asia Since 1800 (GH)
HIST 3423	Modern Japan (GH)
HIST 3433	Modern China (GH)
HIST 3443	Gender Relations in Chinese History (H)
HIST 3453	Colonial Latin America (H)
HIST 3463	Modern Latin America (GH)
HIST 3503	Medieval Islamic History (H)
HIST 3513	Modern Middle East (GH)
HIST 3573	The Mongol Empire (H)
HIST 3810	Topics in World History
HIST 4723	Jerusalem: City and Symbol Across Millennia (H)
HIST 4753	Muslim-Christian Relations (H)
HIST 4883	History of Modern Southeast Asia (GH)
Select 12 hours of the following upper-division law-related courses:	12

AGEC 3713	Agricultural Law	
AMST 3333	Crime, Law and American Culture (S)	
ECON 3713	Introduction to Industrial Organization	
PHIL 3003	Symbolic Logic (Q)	
POLS 3033	International Law	
POLS 3963	State Courts and the Bar	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 4363	Environmental Law And Policy	
PSYC 4143	Psychology and Law	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4313	Sociology of Law	
others with consent of advisor		
Hours Subtotal		**48**
Electives		
Select 10 hours		10
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Recommended courses:		
ECON 2103	Introduction to Microeconomics (S)	
or POLS 2023	The Individual And The Law	
Hours Subtotal		**10**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
General Education courses		8
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
HIST 1613 or HIST 1623 or HIST 1713 or HIST 1813 or HIST 1823	Western Civilization to 1500 (H) or Western Civilization after 1500 (H) or Survey of Eastern Civilization (H) or World History from Ancient Times to 1500 (H) or World History 1500 to Present (H)	3
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
HIST 1623 or HIST 1613 or HIST 1713 or HIST 1813 or HIST 1823	Western Civilization after 1500 (H) or Western Civilization to 1500 (H) or Survey of Eastern Civilization (H) or World History from Ancient Times to 1500 (H) or World History 1500 to Present (H)	3
1713 First Semester Foreign Language		3
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		6
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
HIST 3903	Introduction to the Study of History	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
HIST 4903 or HIST 4993	Senior Seminar or Senior Honors Thesis	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Languages and Literatures

The Department of Languages and Literatures offers American Sign Language, French, German, and Spanish as major fields of study. Minors may be earned in American Sign Language, Chinese, French, German, ancient Greek, Japanese, Korean, Latin, Russian, and Spanish, or an Area Studies program.

In all languages offered by the department, elementary courses are available for students with no previous experience. Students with previous foreign language experience are strongly encouraged to take placement tests to find the course best suited for their level of proficiency. A language major is often supported by study of another language or work in other fields.

The study of languages is a vital and humanizing part of a general education and an excellent addition to just about any field of study. In a rapidly changing and shrinking world, it offers new cultural insights, breaks down insularity, fosters discipline of thought and expression, and leads to a better understanding of one's native language and culture. Language majors may expect to find openings in a wide variety of careers in law, medicine, government, industry and commerce. Job opportunities are greatly enhanced for those who combine language study with a dual degree or minor in other disciplines. There is a growing demand for language teachers in secondary education. Bachelor of Arts candidates may qualify for teaching licensure without increasing the number of hours required for graduation.

In addition to the standard courses in language, literature and civilization for individual languages, the department offers courses in literature in English translation for general education, and courses in German and Russian for reading knowledge.

Courses

ASL 1713 American Sign Language I (F)
Description: Introduction to American Sign Language: development of receptive and expressive skills in authentic situations and an introduction to Deaf Culture; fingerspelling, numbers, classifiers, and facial expressions. Not for native speakers per University Academic Regulations 4.9. Previously offered as ASL 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 1813 American Sign Language II (F)
Prerequisites: ASL 1713 or equivalent proficiency.
Description: Continuation of ASL 1713, further development of receptive and expressive skills in authentic situations and study of Deaf Culture. Learners are required to attend functions within the Deaf Community and focus on the different accents within sign language. Not for native speakers per University Academic Regulation 4.9. Previously offered as ASL 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2713 American Sign Language III (F)
Prerequisites: ASL 1813 or equivalent proficiency.
Description: This course is designed to provide a development of skills in non-verbal communications and increased understanding of the types and uses of classifiers in ASL. Emphasizes the use and understanding of facial expression, gestures, pantomime, and body language. Students will develop further abilities to utilize this component of ASL in their expressive and receptive signing abilities. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2723 American Deaf Culture
Prerequisites: ASL 1813 or equivalent proficiency.
Description: This course provides an analysis of the development and historical overview of Deaf culture in the United States. Topics include: education of the D/deaf; Deaf films, theaters, arts, and clubs; preservation of American Sign Language; technology and services in the Deaf community. The student's acculturation process is facilitated by active participation in the Stillwater/Tulsa Deaf community. This course is taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2813 Intermediate Grammar
Prerequisites: ASL 2713 or equivalent proficiency.
Description: This course delves into the grammatical structures in ASL; work on developing receptive skills for voicing. Continued work on production of ASL that includes pronominalization, classifiers and locatives, distributional, temporal, pluralization, and grammatical structures. Students will view and analyze ASL stories, and be required to go out to the community to gain further understanding of these issues firsthand. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 2823 Cultural Diversity in the Deaf Community
Prerequisites: ASL 2723 or equivalent proficiency.
Description: This course covers ethnic and cultural diversity within the American Deaf community specifically. Deaf people of color. Students explore how biases and stereotypes form, do self-analysis and consider how these factors may impact their work as Deaf interpreters. Students also research a variety of organizations representing Deaf ethnic and cultural groups further developing their individual resources. Also examined are societal attitudes regarding disability in general and hearing loss and communication difficulties in particular.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3113 Cognitive Processing
Prerequisites: ASL 2813 or equivalent proficiency.
Description: This course introduces cognitive processes of communication. Cognitive processing underlies some of the more complex aspects of simultaneous interpreting. Topics to be covered in the course include language and intralingual skills, memory, comprehension, and routinization of complex cognitive linguistic tasks. Students will develop further abilities to utilize this component of ASL in their expressive and receptive signing abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3123 Translation
Prerequisites: ASL 3113 or equivalent proficiency.
Description: This course focuses on developing translation skills. Translation skills are critical in delivering message equivalence between languages. Emphasis will be on preparing to translate, interlingual meaning transfer, target language form, framing the cognitive interpreting process, and norms of diverse linguistic populations. The translation skills acquired from this course serve as a foundation for consecutive and simultaneous interpreting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3500 Interpreting Special Areas
Prerequisites: Consent of instructor.
Description: Instruction and/or tutorial work in American Sign Languages other than those offered in the major program. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 3713 Introduction to Interpreting
Prerequisites: ASL 2813 or equivalent proficiency.
Description: An introduction to the profession of sign language interpreting, which includes an overview of the history of interpreting and interpreting and interpreting organizations, the roles and responsibilities of the interpreter, an overview of various work venues, and a study of skills required to express communication without the spoken word using facial expression, body language, and gestures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3723 Science, Technology, Engineering, and Math I
Prerequisites: ASL 2813 or equivalent proficiency.
Description: This course is designed to teach vocabulary and concepts about topics within the primary and early secondary educational STEM settings. Students will learn about applicable laws for K-12 interpreting, resources for STEM, Deaf education in K-12, and introduction to the field's standard practice of educational interpreting. The course will have project-based and problem-based learning activities. The course will help prepare students who seek to enter the K-8th public school system as sign language interpreters or Deaf education teachers. This course will be taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3733 Consecutive Interpreting
Prerequisites: ASL 3713
Description: This course focuses on developing consecutive interpreting skills from American Sign Language to spoken English and back. Course topics include fidelity, comprehension, memory, reformation, self-monitoring and repair techniques. The course is built on readings, discussion, practice and self-analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3813 Linguistics of American Sign Language
Prerequisites: ASL 2813 or equivalent proficiency.
Description: Presents authoritative readings on the most current linguistic concepts, including the fundamentals of phonology, morphology, syntax, semantics, and the use of language; stimulate discussion about the ongoing development of ASL linguistic theory; look at groundbreaking research on iconic signs in ASL, variation in ASL, different functions of space in ASL, and the artistic forms of ASL. Previously offered as ASL 3503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 3823 Science, Technology, Engineering, and Math II
Prerequisites: ASL 3723 or equivalent proficiency.
Description: This course is a continuation of STEM I and is designed to teach vocabulary and concepts about topics within secondary and post-secondary educational STEM settings. The course will involve participation in problem and project-based learning activities. Students will continue to learn applicable laws, resources to match both target educational levels, and the profession's standard practice for both settings. The course will help prepare students to enter the secondary and post-secondary school system as sign language interpreters or Deaf education teachers. This course will be taught in ASL.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4003 Practicum I
Prerequisites: ASL 3773 and Instructor Permission.
Description: This course provides essential skills, knowledge, and preparation for the practical internship experience (ASL 4750: Practicum II).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4550 Seminar in ASL
Prerequisites: Consent of instructor.
Description: Readings and discussion of vital subjects in American Sign Language. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 4713 American Sign Language Literature
Prerequisites: ASL 2813 or equivalent proficiency.
Description: Focus on ASL literature and narrations. Use of authentic stories from deaf presenters. Creation of poems and narrative stories that follow ASL structure and grammatical rules based on stories and history gleaned of the community of the Deaf World.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4723 Simultaneous Interpreting
Prerequisites: ASL 3713
Description: This course is a continuation of consecutive interpreting and focuses on English and ASL simultaneous interpreting skills. Course topics include identifying sources of error, comprehension, transfer, reformulation, and self-monitoring. Students will also further develop their linguistic competencies of ASL and English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4750 Practicum II
Prerequisites: ASL 4003 and Instructor Permission.
Description: Students will complete a part-time (or full-time) practicum interpreting experience under the direct supervision of a mentor in an educational, public, or private setting. Students will coordinate interpreting services, participate in professional development activities, observe interpreted events, and interpret. This course does not require on-site class meetings. The internship is completed at the site(s) agreed upon by the student, internship mentor, and the course faculty member.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

ASL 4813 Ethics for Interpreters
Prerequisites: ASL 3713
Description: Understand the purpose and obligations of an interpreter; how this role will affect the interpreter as well as others, since all actions have consequences. Look at stakeholders and short-term and long-term effects of decisions made and be able to support those decisions with ethical standards. Preparation to take the State of Oklahoma Quality Assurance Screening Test (QAST) by the end of the course. Previously offered as ASL 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

ASL 4833 Interactive Interpreting
Prerequisites: ASL 3713
Description: This course explores how sign language interpreters work in an interactive discourse setting. The focus of the course will be on the dialogic nature of interpreting, the role of the interpreter through discourse, the impact of the presence of an interpreter, and the range of settings that require interactive skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 1713 Elementary Chinese I (F)
Description: Basic introduction to spoken Mandarin Chinese and Chinese characters. Training in pronunciation, conversation, grammar and reading. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 1813 Elementary Chinese II (F)
Prerequisites: CHIN 1713 or equivalent proficiency.
Description: Continuation of CHIN 1713. Mastery of the basic grammatical patterns and conversational principles, and increasing repertory of Chinese characters. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 2713 Intermediate Chinese I (F)
Prerequisites: CHIN 1813 or equivalent proficiency.
Description: A continuation of CHIN 1813. Emphasis on fluency in spoken Mandarin Chinese, structures of greater complexity, a greater repertory of characters and vocabulary items, and reading ability. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 2813 Intermediate Chinese II
Prerequisites: CHIN 2713 or equivalent proficiency.
Description: Continuation of CHIN 2713. Not for native speakers per University Academic Regulation 4.9. Previously offered as CHIN 2225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 3343 Business Chinese
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: This course is designed to help students build upon their fundamental Chinese language communication skills by using professional and formal business tools such as letters, reports, news, and oral presentations in structured business environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 4713 Advanced Readings in Chinese
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: Development of student competence in reading a wide variety of materials by contemporary Chinese writers. Previously offered as CHIN 3133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

CHIN 4813 Advanced Chinese Conversation
Prerequisites: CHIN 2813 or equivalent proficiency.
Description: Development of general oral and aural proficiency. Previously offered as CHIN 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 1713 Elementary French I (F)
Description: Main elements of grammar and pronunciation, with work on the four basic skills of listening comprehension, speaking, reading and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 1813 Elementary French II (F)
Prerequisites: FREN 1713 or equivalent proficiency.
Description: Continuation of FREN 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2713 Intermediate French (FG)
Prerequisites: FREN 1813 or equivalent proficiency.
Description: Further development of speaking, listening, reading, and writing skills along with short cultural and literary readings. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

FREN 2723 Intermediate Grammar and Composition I
Prerequisites: FREN 1813 or equivalent proficiency.
Description: Review and further presentation of grammar and pronunciation; consolidation of basic skills, with additional emphasis on writing. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2813 Intermediate Reading and Conversation
Prerequisites: FREN 2713 or equivalent proficiency.
Description: Reading and discussion of more advanced French texts, mostly literary. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as FREN 2232.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 2823 Intermediate Grammar and Composition
Prerequisites: FREN 2713 or equivalent proficiency.
Description: Review and further presentation of grammar and pronunciation; consolidation of basic skills, with additional emphasis on writing. May be taken concurrently with other 2000-level French courses. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3073 French Conversation
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Colloquial speech, with discussion of French newspapers and magazines. Practice in brief public address in French.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3203 Advanced Written Expression
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Practice in composition and stylistics, designed to bring students up to a high level of proficiency in writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3213 Advanced Grammar
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Conceptual framework and presentation of the finer points of French grammar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3343 Business French
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Applied French for students in commercial and technical fields. Overview and strategies of business and economic climate in France.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3463 Advanced Diction and Phonetics
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Required course for teacher certification. French speech sounds and intonation patterns, with practice to improve the student's pronunciation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 3853 Introduction to Analysis of French Literature
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Close reading of shorter texts in a variety of literary genres, with presentation of French versification and literary terminology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4153 Survey of French Literature I
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Historical survey of French literature before 1800, with reading of representative texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4173 Survey of French Literature II
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Historical survey of French literature since 1800, with reading of representative texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4333 Background of Modern French Civilization
Prerequisites: 18 hours of French or equivalent proficiency.
Description: General overview of French history, geography, and culture, with emphasis on art, music, and intellectual movements. Capstone course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4550 Directed Studies in French
Prerequisites: 18 credit hours of French or equivalent proficiency.
Description: Individual or group study of French language or literature. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

FREN 4573 Modern French Theater
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Analysis of French plays from the 19th and 20th centuries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 4583 French Cinema
Prerequisites: 18 hours of French or equivalent proficiency.
Description: Introduction to cinematic analysis through a survey of French movie classics from the 1890s to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

FREN 5110 Advanced Studies in French
Prerequisites: 15 credit hours of upper-division French.
Description: Discussion or research in specialized topics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Languages and Literatures

GREK 1713 Elementary Classical Greek I (F)
Description: Grammar and vocabulary of ancient Greek. Previously offered as GREK 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 1813 Elementary Classical Greek II (F)
Prerequisites: GREK 1713 or equivalent proficiency.
Description: A continuation of GREK 1713. Grammar and readings of classical Greek authors. Previously offered as GREK 1223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 2713 Elementary Classical Greek III (F)
Prerequisites: GREK 1813 or equivalent proficiency.
Description: A continuation of GREK 1813. Grammar and readings of classical Greek authors. Previously offered as GREK 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 2813 Intermediate Readings
Prerequisites: GREK 2713 or equivalent proficiency.
Description: An introduction to a variety of classical authors to increase reading facility and grammatical comprehension. Previously offered as GREK 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GREK 3330 Advanced Readings
Prerequisites: GREK 2813 or equivalent proficiency.
Description: Prose authors, epic poetry, drama, Koine Greek and religious texts. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

GRMN 1713 Elementary German I (F)
Description: Main elements of grammar and pronunciation, with work on the four basic skills of listening comprehension, speaking, reading and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 1813 Elementary German II (F)
Prerequisites: GRMN 1713 or equivalent proficiency.
Description: Continuation of GRMN 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2713 Intermediate German (FG)
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Continuation of GRMN 1813. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 2723 Intermediate German Skills I
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Review and expansion of German listening comprehension, speaking, reading, and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2113. Can be taken concurrently with GRMN 2713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2813 Reading and Conversation II
Prerequisites: GRMN 1813 or equivalent proficiency.
Description: Reading/viewing and analysis of prose, drama and poetry, and film for building literary and cultural appreciation. May be taken concurrently with other 2000-level German courses. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 2823 Intermediate German Skills II (G)
Prerequisites: GRMN 2723 or equivalent proficiency.
Description: Continuation of GRMN 2723 with further work in listening comprehension, speaking, reading, and writing. Not for native speakers per University Academic Regulation 4.9. Previously offered as GRMN 2222.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 2890 Honors Experience in German
Prerequisites: Honors Program participation and concurrent enrollment in a designated German course.
Description: A supplemental Honors experience in German to partner concurrently with designated German courses. This course adds a different intellectual dimension to the designated courses. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: Honors Credit

GRMN 3013 German for Reading Requirements I
Description: Reading in the humanities and the sciences. Translation from German to English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3023 German for Reading Requirements II
Prerequisites: GRMN 3013 or equivalent.
Description: Intermediate and advanced reading in the humanities and sciences. Translation from German to English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3343 Business German
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Business concepts, practices and the expectations of professional life in Germany. Focus on specialized vocabulary and business correspondence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3463 Advanced Diction and Phonetics
Prerequisites: 15 credit hours of German or equivalent proficiency.
Description: German speech sounds and intonation patterns. Practice to improve the student's pronunciation. Required course for teacher certification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3501 Orientation to Internship Abroad
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Preparation for residential internship in a German speaking country. Culture, civilization, and contemporary conditions, and communication for students accepted for international cooperative education program. Previously offered as GRMN 3902.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3502 Internship Abroad
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Practical studies in a German-speaking country. Supervised research papers and reports and oral testing during and following the practicum. Previously offered as GRMN 3903.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3803 Advanced Conversation Skills
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Colloquial speech forms and sentence structure. Practice in brief public address in German.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 3813 Advanced Writing Skills
Prerequisites: 15 hours of German or equivalent proficiency.
Description: Practice in original composition in German. Problematic points of German grammar and stylistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4113 German Literature and Culture in Translation (G)
Description: Influential authors, works, and literacy and artistic movements in German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures
General Education and other Course Attributes: International Dimension

GRMN 4153 Survey of German Literature I
Prerequisites: 18 hours of German or equivalent proficiency.
Description: German literature from the beginning to 1785.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4163 Survey of German Literature II
Prerequisites: 18 hours of German or equivalent proficiency.
Description: German literature from 1785 to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4333 Backgrounds of Modern German Civilization
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Historical, cultural, political and literary trends in the formation of German civilization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4343 Modern Germany
Prerequisites: 18 hours of German or equivalent proficiency.
Description: The major cultural, social and political forces that have shaped the Germany of today. Previously offered as GRMN 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4513 The Age of Goethe
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Principal figures of German Classicism and Romanticism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4523 19th Century German Literature and Culture
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Major works and figures in 19th-century literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4533 20th Century German Literature and Culture
Prerequisites: 18 credit hours of German or equivalent proficiency.
Description: Major works and figures in 20th-century literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4543 Contemporary German Literature and Culture
Prerequisites: 18 hours of German or equivalent proficiency.
Description: Major works and figures in contemporary literature, art, history, and culture in the German-speaking lands.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

GRMN 4550 Special Topics in German
Prerequisites: 18 credit hours of German or equivalent proficiency.
Description: Reading and discussion of vital subjects in German. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

GRMN 4650 Topics in German
Prerequisites: One 3000-level German course, or equivalent.
Description: In-depth study of a specific aspect of German literature, culture or language.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 1713 Elementary Japanese I (F)
Description: Pronunciation, conversation, grammar and reading. Not for native speakers per University Academic Regulation 4.9. Previously offered as JAPN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 1813 Elementary Japanese II (F)
Prerequisites: JAPN 1713 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. Not for native speakers per University Academic Regulation 4.9. Previously offered as JAPN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 2713 Intermediate Japanese I (F)
Prerequisites: JAPN 1813 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. A continuation of JAPN 1813. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 2813 Intermediate Japanese II
Prerequisites: JAPN 2713 or equivalent proficiency.
Description: Oral and written practice of modem Japanese. A continuation of JAPN 2713. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 3723 Advanced Readings in Japanese
Prerequisites: JAPN 2813 or equivalent proficiency.
Description: Designed to increase facility and naturalness of delivery in dialogue. Development of general oral and aural proficiency. Previously offered as JAPN 3133 and JAPN 4713. Same course as JAPN 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

JAPN 3823 Advanced Japanese II
Prerequisites: JAPN 3723.
Description: Designed to increase facility and naturalness of delivery in dialogue. Development of general oral and aural proficiency. Previously offered as JAPN 3013 and JAPN 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 1713 Elementary Korean I (F)
Description: Pronunciation, conversation, grammar, and reading. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 1813 Elementary Korean II (F)
Prerequisites: KRN 1713 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 2713 Intermediate Korean I (F)
Prerequisites: KRN 1813 or equivalent proficiency.
Description: Reading, the writing system, culture, grammar, conversation. A continuation or KRN 1813. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 2813 Intermediate Korean II
Prerequisites: KRN 2713 or equivalent proficiency.
Description: Oral and written practice of modern Korean. A continuation of KRN 2713. Not for native speakers per University Academic Regulation 4.9.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 3723 Advanced Korean Grammar and Conversation I
Prerequisites: KRN 2813 or Equivalent Proficiency.
Description: This course aims to enable students to communicate effectively in the Korean language in a variety of contexts and situations. They will be able to participate in both informal and formal conversations relating to topics, such as living in Korea, Korean food, Korean culture and famous Korean figures. In addition, they will improve their interpersonal, interpretive, and presentational communication skills and gain a better understanding of a wide range of Korean culture throughout the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

KRN 3823 Advanced Korean Grammar and Conversation II
Prerequisites: KRN 3713 or Equivalent Proficiency.
Description: This course aims to enable students to communicate effectively in the Korean language in a variety of contexts and situations. The class sessions are conducted mostly in Korean. In this course, students will further develop their communication skills in the four language domains (speaking, listening, reading, and writing) as well as a deeper understanding of Korean culture and society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 1713 Elementary Latin I (F)
Description: The rudiments of beginning Latin: grammar, vocabulary and elementary readings. Previously offered as LATN 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 1813 Elementary Latin II (F)
Prerequisites: LATN 1713 or equivalent proficiency.
Description: Continuation of LATN 1713. Grammar, vocabulary and readings. Previously offered as LATN 1223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 2713 Elementary Latin III (F)
Prerequisites: LATN 1813 or equivalent proficiency.
Description: A continuation of LATN 1813. Grammar and readings of Latin authors. Previously offered as LATN 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 2813 Intermediate Readings
Prerequisites: LATN 2713 or equivalent proficiency.
Description: Readings from Virgil's Aeneid. Previously offered as LATN 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

LATN 3330 Advanced Readings in Latin
Prerequisites: LATN 2813 or equivalent proficiency.
Description: Prose authors, poetry, and medieval Latin. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

RUSS 1713 Elementary Russian I (F)
Description: Understanding, speaking, reading, and writing. Method of instruction is audio-lingual. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 1813 Elementary Russian II (F)
Prerequisites: RUSS 1713 or equivalent proficiency.
Description: Continuation of RUSS 1713. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 2713 Intermediate Russian I (F)
Prerequisites: RUSS 1813 or equivalent proficiency.
Description: Russian grammar, composition and conversation. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 2813 Intermediate Russian II
Prerequisites: RUSS 2713 or equivalent proficiency.
Description: Continuation of RUSS 2713. Not for native speakers per University Academic Regulation 4.9. Previously offered as RUSS 2225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 3113 Russian Conversation
Prerequisites: RUSS 2813 or equivalent proficiency.
Description: Development of conversational skills in formal and informal Russian language; study of oral communication and idioms; vocabulary enhancement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 3223 Russian Composition
Prerequisites: RUSS 2813 or equivalent proficiency.
Description: The development of all forms of written communication in Russian through practice in writing compositions, letters, reports, and other documents in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4013 Survey of Russian Literature I
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Survey of Russian literature from its beginning to late nineteenth century with readings in Russian of representative texts. Course conducted in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4023 Survey of Russian Literature II
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Survey of Russian literature from late nineteenth century to post-Soviet era with readings in Russian of representative texts. Course conducted in Russian.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4123 Russian Literature in Translation II
Description: Russian and Soviet literature from mid-19th century to present: Tolstoy, Chekhov, Gorky, Zamiatin, Sholokhov, Pasternak, Bunin, Solzhenitsyn, Arzhak (Daniel), Tertz (Sinyavsky), Voznesensky, and Evtushenko. Readings in English. Classes conducted in English.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

RUSS 4223 Russian Reading Skills
Prerequisites: 20 hours of Russian or equivalent proficiency.
Description: Acquisition of skills in vocabulary enrichment, stylistic analysis and advanced proficiency in reading various styles of contemporary written Russian (newspaper, political, business).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 1713 Elementary Spanish I (F)
Description: Pronunciation, conversation, grammar, and reading. Includes language lab work. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 1115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 1813 Elementary Spanish II (F)
Prerequisites: SPAN 1713 or equivalent proficiency.
Description: Continuation of SPAN 1713. Includes language lab work. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 1225.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 1821 Medical Spanish
Prerequisites: Previously completed or concurrently enrolled in SPAN 1813
Description: This course is specifically geared to students who are taking Elementary Spanish II (SPAN 1813), and that want to pursue a career in the health professions. This means that you need to be enrolled in SPAN 1813 and Spanish for Health Care Professionals the same semester or have taken SPAN 1813 already. You will learn vocabulary, dialogs, and structure to help greet patients, take vital signs, interview to find out the chief complaint, review medical history, give a physical exam, and recommend prescriptions or follow-up instructions.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2713 Intermediate Spanish (F)
Prerequisites: SPAN 1813 or equivalent proficiency.
Description: Further development of speaking, listening, reading, and writing skills along with short cultural and literary readings. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2115.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2723 Intermediate Hispanic Culture and Media
Prerequisites: SPAN 1813 or equivalent proficiency.
Description: Further development of language skills within Hispanic cultural contexts. May be taken concurrently with 2713 or subsequently (but not before).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2813 Intermediate Reading and Conversation
Prerequisites: SPAN 2713 and SPAN 2723 or equivalent proficiency.
Description: Skill consolidation with emphasis on short literary readings and conversation. May be taken concurrently with SPAN 2823. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2232.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 2823 Intermediate Composition and Grammar
Prerequisites: SPAN 2713 and SPAN 2723 or equivalent proficiency.
Description: Skill consolidation with emphasis on composition and grammar with some conversation. May be taken concurrently with SPAN 2813. Not for native speakers per University Academic Regulation 4.9. Previously offered as SPAN 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3053 Introduction to Literatures and Cultures in Spanish
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Introduction to techniques of literary analysis and research in Spanish and to Hispanic literary history. Prerequisite for all advanced literature courses in Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3163 Literature of Medieval and Early Modern Spain
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of literature in Spain from the medieval period to 1700. Previously offered as SPAN 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3173 Literature of Spain from 1700 to the Present
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of literature in Spain from 1700 to the present. Previously offered as SPAN 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3183 Early Latin American Literature
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Survey of Latin America literature in Spanish from the pre-Columbian era to the turn of the 20th century, including letters, chronicles, essays, poetry, drama, and narrative. Previously offered as SPAN 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3193 Modern and Contemporary Latin American Literature
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Survey of 20th and 21st century Latin American literature in Spanish, including narrative, poetry, drama, and essays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3203 Advanced Conversation
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Practice in conversation skills, designed to bring students to a high level of proficiency in speaking and listening. Class conducted in Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3213 Advanced Grammar and Composition
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Study of advanced grammar and stylistics with emphasis on composition skills, designed to bring students to a high level of proficiency in writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3343 Business Spanish
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: Development of spoken and written Spanish for use in business and professional contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3363 Spanish for Healthcare Professionals
Prerequisites: 18 credits of lower-division Spanish or equivalent proficiency.
Description: This course is designed for healthcare professionals. You will learn vocabulary, dialogs, and structure to help greet patients, take vital signs, interview for symptoms, review medical history, give a physical exam, and recommend prescriptions or follow-up instructions. Although by no means comprehensive, the course will provide a starting point for communicating with Spanish-speaking patients. Cultural notes will be provided to assist in making patients more comfortable.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3403 Introduction to Hispanic Linguistics
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: This course provides an introduction to the scientific study of language and its structure and includes introductions to the fields of pragmatics, phonology, sociolinguistics, historical linguistics, and applied linguistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 3463 Spanish Phonetics and Phonology
Prerequisites: 18 hours of Spanish or equivalent proficiency.
Description: In this course students will examine the phonetic and phonological systems of Spanish as well as the extensive diatectal and sociolinguistic variation of these sounds in the Spanish-speaking world and among learners of Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4123 Hispanic Poetry
Prerequisites: One 3000 level Spanish literature course.
Description: Detailed study of representative poetry from Spain or Latin America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4133 Hispanic Prose
Prerequisites: One 3000 level Spanish literature course.
Description: Detailed study of representative prose works from Spain or Latin America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4143 Short Novels in Hispanic Literature
Prerequisites: One 3000-level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures written in Spanish. Examine the different literary movements, social and historical courses that influenced the novels, as well as the theoretical models about them. Because of the close connection to Cinema and Theater, the readings will be compared to their cinematic adaptations and to other artistic genres.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4163 Don Quijote
Prerequisites: One 3000 level Spanish literature course.
Description: Seminar devoted to Cervantes' novel.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4173 Hispanic Drama
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and interpretation of dramatic works selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4183 Spain and Islam
Prerequisites: One 3000 level Spanish literature course.
Description: An in depth study of conflict and coexistence among Christian and Islamic cultures in Spain from the eighth century to the present day. The course includes both literary and historical readings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4193 Hispanic Film
Prerequisites: One 3000 level Spanish literature course.
Description: Study of Spanish and/or Latin American films from cultural, historical, and artistic perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4203 Hispanic Music
Prerequisites: One 3000-level Spanish literature course.
Description: Critically interpret songs (their music and lyrics), identify the periods during which they were produced and their style, and related them to each other. Recognize and analyze the main cultural movements, historical events, and figures that shaped the development of Hispanic Music as it is represented in music production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4213 Short Stories in Hispanic Literature
Prerequisites: One 3000-level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures written in Spanish. Examine the different literary movements, social and historical causes that influenced the Short Stories, as well as the theoretical models about them. Critically analyze texts, identify their periods and style, and relate them to each other. Recognize and analyze the chief literary movements, historical events, and figures that shaped the development of the stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4223 Contemporary Hispanic Literature
Prerequisites: One 3000 level Spanish literature course.
Description: Major Hispanic writers since 1900.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4253 Masterpieces of Hispanic Literature I
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4263 Masterpieces of Hispanic Literature II
Prerequisites: One 3000 level Spanish literature course.
Description: Reading and analysis of classics selected from the Hispanic literatures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4323 Culture and Civilization of Spain
Prerequisites: One 3000 level Spanish course.
Description: Reading and discussion of selected texts outlining the development of the culture and civilization of Spain. Previously offered as SPAN 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4333 Culture and Civilization of Latin America
Prerequisites: One 3000 level Spanish course.
Description: Reading and discussion of selected texts outlining the development of contemporary Hispanic civilization of the Americas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4413 Advanced Stylistics
Prerequisites: SPAN 3213.
Description: Continuation of SPAN 3213, emphasizing further development of grammar and composition in a variety of contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4443 History of the Spanish Language
Prerequisites: One 3000-level Spanish course.
Description: This course provides an introduction to the origins and linguistic development of the Spanish language from its Latin roots to Modern Spanish.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4453 Voices of US Spanish: Identity and Variation
Prerequisites: One 3000 level Spanish course.
Description: This course provides an in-depth exploration of the Spanish language as it is spoken and used in the United States, drawing on sociolinguistic, cultural, and historical perspectives. Students will examine the dynamic nature of Spanish in various U.S. communities, with special attention to the unique sociolinguistic landscape of Spanish in Oklahoma. The course will cover topics such as language contact, bilingualism, code-switching, language maintenance, and the role of Spanish in shaping Latino identities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Foreign Lang & Lit

SPAN 4463 Sociolinguistics of the Spanish-Speaking World
Prerequisites: One 3000-level Spanish course.
Description: In this course students will investigate the variation of the Hispanic language as well as the linguistic features of Spanish as a result of Spanish in contact with other languages. Phonetic/phonologic, morphologic, syntactic, and lexical features of Spanish will be examined in relation to broader geographical, social, political, cultural, and historical contexts of the Spanish-speaking world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 4550 Seminar in Spanish
Prerequisites: One 3000-level Spanish course, or equivalent.
Description: Readings and discussion of vital subjects in Spanish. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Languages and Literatures

SPAN 4650 Topics in Spanish
Prerequisites: One 3000-level Spanish course, or equivalent.
Description: In depth study of a specific aspect of Hispanic literature, culture or language. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Undergraduate
Schedule types: Lecture
Department/School: Languages and Literatures

SPAN 5110 Advanced Hispanic Studies
Prerequisites: 22 hours of Spanish or graduate standing in foreign language.
Description: Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Languages and Literatures

Undergraduate Programs

- American Sign Language Studies, BA (p. 1479)
- American Sign Language Studies: ASL - English Interpreting, BA (p. 1482)
- French, BA (p. 1488)
- French: Business Essentials, BA (p. 1491)
- French: Pre-Law, BA (p. 1494)
- German, BA (p. 1498)
- German: Business Essentials, BA (p. 1501)
- German: Pre-Law, BA (p. 1504)
- Spanish, BA (p. 1515)
- Spanish: Business Essentials, BA (p. 1518)
- Spanish: Pre-Law, BA (p. 1521)

Minors

- American Sign Language (ASL), Minor (p. 1478)
- Arabic (ARB), Minor (p. 1485)
- Chinese (CHIN), Minor (p. 1486)
- French (FREN), Minor (p. 1487)
- German (GRMN), Minor (p. 1497)
- Greek (GREK), Minor (p. 1507)
- Japanese (JPN), Minor (p. 1508)
- Korean (KRN), Minor (p. 1509)
- Latin (LATN), Minor (p. 1510)
- Professional Chinese (PRCH), Minor (p. 1511)
- Russian (RUSS), Minor (p. 1513)
- Spanish (SPAN), Minor (p. 1514)

Certificates

- American Sign Language, UCRT (p. 1484)
- Professional Spanish, UCRT (p. 1512)

Faculty

Erik Ekman, PhD—Professor and Head
Professors: Isabel Alvarez-Sancho, PhD; Eric Turcat, PhD; Christopher Weimer, PhD
Associate Professor: Jonathan Ellis, PhD
Assistant Professors: Kimberly Hale, EdD; Carol Ready, PhD; Juan Carlos Rozo, PhD; Giovanni Salazar-Calvo, PhD; Carolina Sitya Nin, PhD; Rebecca Stewart-Gray, PhD; Taylor Woodall-Greene, PhD
Teaching Professors: Rachael Cullick, PhD; Jonathan Z. Ludwig, PhD
Teaching Assistant Professors: Matthew O'Neill, PhD; Donald Wood, PhD
Teaching Instructor: Cheng Chen, MA

American Sign Language (ASL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
ASL 1713	American Sign Language I	3
ASL 1813	American Sign Language II	3
ASL 2713	American Sign Language III	3
ASL 2813	Intermediate Grammar	3
Upper-Level Requirements		
Select six hours from the following:		6
ASL 3500	Interpreting Special Areas	
ASL 3713	Introduction to Interpreting	
ASL 3723	Science, Technology, Engineering, and Math I	
ASL 3813	Linguistics of American Sign Language	
ASL 3823	Science, Technology, Engineering, and Math II	
ASL 4550	Seminar in ASL	
ASL 4713	American Sign Language Literature	
ASL 4813	Ethics for Interpreters	
Total Hours		**18**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

American Sign Language Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		*9*
See note 2.a.		
Natural & Mathematical Sciences		*3*
See note 2.b.		
Foreign Language		
ASL 1713	American Sign Language I (F)	3
ASL 1813	American Sign Language II (F)	3
ASL 2713	American Sign Language III (F)	3
Non-Western Studies		
Select at least one course. See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division ASL courses with minimum grade of "C" in each course.		
ASL 2723	American Deaf Culture	3
ASL 2813	Intermediate Grammar	3
ASL 2823	Cultural Diversity in the Deaf Community	3
ASL 3113	Cognitive Processing	3
ASL 3123	Translation	3
ASL 3713	Introduction to Interpreting	3
ASL 3723	Science, Technology, Engineering, and Math I	3
ASL 3813	Linguistics of American Sign Language	3
ASL 3823	Science, Technology, Engineering, and Math II	3
ASL 4713	American Sign Language Literature	3
ASL 4813	Ethics for Interpreters	3
Select 10 upper-division hours to reach 43 hours.		10
Hours Subtotal		**43**
Electives		
Select 15 hours.		15
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 3 additional upper-division hours.		
Hours Subtotal		**15**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.

b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.

c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ASL 1713	American Sign Language I (F)	3
General Education courses		11
	Hours	**14**
Spring		
ASL 1813	American Sign Language II (F)	3
ASL 2723	American Deaf Culture	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
ASL 2713	American Sign Language III (F)	3
ASL 2823	Cultural Diversity in the Deaf Community	3
ASL 3713	Introduction to Interpreting	3
General Education courses		6
	Hours	**15**
Spring		
ASL 2813	Intermediate Grammar	3
ASL 3113	Cognitive Processing	3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
ASL 3123	Translation	3
ASL 3723	Science, Technology, Engineering, and Math I	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
ASL 3813	Linguistics of American Sign Language	3
ASL 3823	Science, Technology, Engineering, and Math II	3
ASL 4813	Ethics for Interpreters (or the following Spring)	3
Major, College, and Elective courses		6
	Hours	**15**

Senior		
Fall		
ASL 4713	American Sign Language Literature	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
ASL 4813 (if not previous Spring)		
	Hours	**15**
	Total Hours	**120**

American Sign Language Studies: ASL - English Interpreting, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT designated (A)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		*9*
See note 2.a.		
Natural & Mathematical Sciences		*3*
See note 2.b.		
Foreign Language		
ASL 1713	American Sign Language I (F)	3
ASL 1813	American Sign Language II (F)	3
ASL 2713	American Sign Language III (F)	3
Non-Western Studies		
Select at least one course. See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division ASL courses with minimum grade of "C" in each course.		
ASL 2723	American Deaf Culture	3
ASL 2813	Intermediate Grammar	3
ASL 2823	Cultural Diversity in the Deaf Community	3
ASL 3113	Cognitive Processing	3
ASL 3123	Translation	3
ASL 3713	Introduction to Interpreting	3
ASL 3723	Science, Technology, Engineering, and Math I	3
ASL 3733	Consecutive Interpreting	3
ASL 3813	Linguistics of American Sign Language	3
ASL 3823	Science, Technology, Engineering, and Math II	3
ASL 4003	Practicum I	3
ASL 4713	American Sign Language Literature	3
ASL 4723	Simultaneous Interpreting	3
ASL 4750	Practicum II	6
ASL 4813	Ethics for Interpreters	3
ASL 4833	Interactive Interpreting	3
Hours Subtotal		**51**
Electives		
Select 7 hours.		7
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 3 additional upper-division hours.		
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ASL 1713	American Sign Language I (F)	3
General Education courses		11
	Hours	**14**
Spring		
ASL 1813	American Sign Language II (F)	3
ASL 2723	American Deaf Culture	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
ASL 2713	American Sign Language III (F)	3
ASL 2823	Cultural Diversity in the Deaf Community	3
ASL 3713	Introduction to Interpreting	3
General Education courses		6
	Hours	**15**
Spring		
ASL 2813	Intermediate Grammar	3
ASL 3113	Cognitive Processing	3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
ASL 3123	Translation	3
ASL 3723	Science, Technology, Engineering, and Math I	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
ASL 3733	Consecutive Interpreting	3
ASL 3813	Linguistics of American Sign Language	3
ASL 3823	Science, Technology, Engineering, and Math II	3
ASL 4813	Ethics for Interpreters	3
Major, College, and Elective courses		3
	Hours	**15**
Senior		
Fall		
ASL 4003	Practicum I	3
ASL 4713	American Sign Language Literature	3
ASL 4723	Simultaneous Interpreting	3
ASL 4833	Interactive Interpreting	3
Major, College, and Elective courses		3
	Hours	**15**
Spring		
ASL 4750	Practicum II (6-12)	6
Major, College, and Elective courses		9
Recommended complete all on-campus university, college, and program requirements prior to internship.		
	Hours	**15**
	Total Hours	**120**

American Sign Language, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 21

Code	Title	Hours
Language Sequence Requirements		
ASL 1713	American Sign Language I (F)	3
ASL 1813	American Sign Language II (F)	3
ASL 2713	American Sign Language III (F)	3
ASL 2813	Intermediate Grammar	3
Select 9 hours from the following:		9
ASL 2723	American Deaf Culture	
ASL 2823	Cultural Diversity in the Deaf Community	
ASL 3713	Introduction to Interpreting	
ASL 3723	Science, Technology, Engineering, and Math I	
ASL 3813	Linguistics of American Sign Language	
ASL 3823	Science, Technology, Engineering, and Math II	
ASL 4550	Seminar in ASL	
ASL 4713	American Sign Language Literature	
Total Hours		**21**

- Minimum GPA 2.50 in upper-division ASL courses with a minimum grade of “C” in each course

Arabic (ARB), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.5 GPA in minor, no grade below a "C" in the minor
Total Hours: 15

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Core Courses		
A minimum of nine credit hours of lower-division language coursework to prepare for advanced language. Please see advisor for details.		9
ARB 3033	Advanced Arabic I	3
ARB 3133	Advanced Arabic II	3
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Chinese (CHIN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
CHIN 1713	Elementary Chinese I	3
CHIN 1813	Elementary Chinese II	3
CHIN 2713	Intermediate Chinese I	3
CHIN 2813	Intermediate Chinese II	3
Upper-Level Requirements		
CHIN 4713	Advanced Readings in Chinese	3
CHIN 4813	Advanced Chinese Conversation	3
Total Hours		**18**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

French (FREN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 21

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
FREN 1713	Elementary French I	3
FREN 1813	Elementary French II	3
FREN 2713	Intermediate French (I)	3
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
Upper-Level Requirements		
Select six hours from the following:		6
FREN 3073	French Conversation	
FREN 3203	Advanced Written Expression	
FREN 3213	Advanced Grammar	
FREN 3343	Business French	
FREN 3463	Advanced Diction and Phonetics	
FREN 3853	Introduction to Analysis of French Literature	
FREN 4153	Survey of French Literature I	
FREN 4173	Survey of French Literature II	
FREN 4333	Background of Modern French Civilization	
FREN 4550	Directed Studies in French	
FREN 4573	Modern French Theater	
FREN 4583	French Cinema	
Total Hours		**21**

Additional Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

French, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
FREN 1713	Elementary French I (F)	3
FREN 1813	Elementary French II (F)	3
FREN 2713	Intermediate French (FG)	3
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division French courses with minimum grade of "C" in each course		
Select these courses (or equivalent proficiency):		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
FREN 3213	Advanced Grammar	3
FREN 4333	Background of Modern French Civilization	3
Select 18 hours or more of the following French courses. At least six hours must be literature courses: [1]		18
FREN 3073	French Conversation	
FREN 3203	Advanced Written Expression	
FREN 3343	Business French	
FREN 3463	Advanced Diction and Phonetics	
FREN 3853	Introduction to Analysis of French Literature	
FREN 4153	Survey of French Literature I [1]	
FREN 4173	Survey of French Literature II [1]	
FREN 4550	Directed Studies in French (1-9 hours)	
FREN 4573	Modern French Theater [1]	
FREN 4583	French Cinema	
LL 3500	Specialized Study in a Modern Language	
LL 4000	Specialized Studies in Languages and Literatures	
Select 10 upper-division hours to reach 40 hours.		10
Hours Subtotal		**40**
Electives		
Select 18 hours		18
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
Hours Subtotal		**18**
Total Hours		**120**

[1] At least 6 hours must be from literature courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
FREN 1713	Elementary French I (F)	3
General Education courses		11
	Hours	**14**
Spring		
FREN 1813	Elementary French II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
FREN 2713	Intermediate French (FG)	3
(FREN 2723 is no longer required)		
General Education courses		12
	Hours	**15**
Spring		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
General Education courses and electives		9
	Hours	**15**

Junior		
Fall		
FREN 3213	Advanced Grammar	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
6 hrs Advanced French as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced French as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced French as offered		6
College and Elective courses		9
	Hours	**15**
	Total Hours	**120**

French: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, excluding MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
FREN 1713	Elementary French I (F)	3
FREN 1813	Elementary French II (F)	3
FREN 2713	Intermediate French (FG)	3
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division French courses with minimum grade of "C" in each course.		
Select these courses (or equivalent proficiency):		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
FREN 3213	Advanced Grammar	3
FREN 3343	Business French	3
FREN 4333	Background of Modern French Civilization	3
15 or more hours of French, of which at least six hours must be literature courses, from: [2]		15
FREN 3073	French Conversation	
FREN 3203	Advanced Written Expression	
FREN 3463	Advanced Diction and Phonetics	
FREN 3853	Introduction to Analysis of French Literature [2]	
FREN 4153	Survey of French Literature I [2]	
FREN 4173	Survey of French Literature II [2]	
FREN 4550	Directed Studies in French (1-9 hours)	
FREN 4573	Modern French Theater [2]	
FREN 4583	French Cinema	
LL 3500	Specialized Study in a Modern Language (1-20 hours)	
LL 4000	Specialized Studies in Languages and Literatures (1-9 hours)	
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Additional hours to reach the required 42 hours may be taken from the following:		
GEOG 3723	Europe (GS)	
POLS 3143	European Politics (G)	
HTM 3223	International Travel and Tourism (G)	

LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 4613	International Management (G)	
MKTG 3993	International Business (G)	
MKTG 4553	International Marketing	
Hours Subtotal		**42**
Electives		
Select 16 hours		16
May need to include at least 13 upper-division hours.		
Hours Subtotal		**16**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

Literature course options include FREN 3853, FREN 4153, FREN 4173, and FREN 4573.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
FREN 1713	Elementary French I (F)	3
General Education courses		11
	Hours	**14**
Spring		
FREN 1813	Elementary French II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
FREN 2713	Intermediate French (FG)	3
(FREN 2723 no longer required)		
General Education courses		12
	Hours	**15**
Spring		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
General education and electives		9
	Hours	**15**
Junior		
Fall		
FREN 3213	Advanced Grammar	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
6 cr Advanced French as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
6 cr Advanced French as offered		6
College and Elective courses		9
	Hours	**15**
	Total Hours	**120**

French: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
FREN 1713	Elementary French I (F)	
FREN 1813	Elementary French II (F)	
FREN 2713	Intermediate French (FG)	
See note 3		9
Non-Western Studies		
Select at least one course		
See note 2.c.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division French courses with minimum grade of "C" in each course		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
FREN 3213	Advanced Grammar	3
FREN 4333	Background of Modern French Civilization	3
Select 18 hours or more of the following French courses. At least six hours must be literature courses: [1]		18
FREN 3073	French Conversation	
FREN 3343	Business French	
FREN 3463	Advanced Diction and Phonetics	
FREN 3853	Introduction to Analysis of French Literature	
FREN 4153	Survey of French Literature I [1]	
FREN 4173	Survey of French Literature II [1]	
FREN 4550	Directed Studies in French (1-9)	
FREN 4573	Modern French Theater [1]	
FREN 4583	French Cinema	
LL 3500	Specialized Study in a Modern Language	
LL 4000	Specialized Studies in Languages and Literatures	
Select 9 hours from the following or accredited doctoral law courses.		9
AMIS 4013	American Indian Sovereignty (D)	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	

POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**39**
Electives		
Select 19 hours		19
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
Hours Subtotal		**19**
Total Hours		**120**

[1]

At least 6 hours must be from literature courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
FREN 1713	Elementary French I (F)	3
General Education courses		11
	Hours	**14**
Spring		
FREN 1813	Elementary French II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
FREN 2713	Intermediate French (FG)	3
(FREN 2723 no longer required)		
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		9
	Hours	**15**
Spring		
FREN 2813	Intermediate Reading and Conversation	3
FREN 2823	Intermediate Grammar and Composition	3
General education and electives		9
	Hours	**15**
Junior		
Fall		
FREN 3213	Advanced Grammar	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
6 hrs Advanced French as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced French as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced French as offered		6
College and Elective courses		9
	Hours	**15**
	Total Hours	**120**

German (GRMN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.50
Total Hours: 21

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
GRMN 1713	Elementary German I	3
GRMN 1813	Elementary German II	3
GRMN 2713	Intermediate German (I)	3
GRMN 2723	Intermediate German Skills I	3
GRMN 2823	Intermediate German Skills II (I)	3
Upper-Level Requirements		
Select six hours from the following:		6
GRMN 3013	German for Reading Requirements I	
GRMN 3023	German for Reading Requirements II	
GRMN 3343	Business German	
GRMN 3463	Advanced Diction and Phonetics	
GRMN 3501	Orientation to Internship Abroad	
GRMN 3502	Internship Abroad	
GRMN 3803	Advanced Conversation Skills	
GRMN 3813	Advanced Writing Skills	
GRMN 4113	German Literature and Culture in Translation (I)	
GRMN 4153	Survey of German Literature I	
GRMN 4163	Survey of German Literature II	
GRMN 4333	Backgrounds of Modern German Civilization	
GRMN 4343	Modern Germany	
GRMN 4513	The Age of Goethe	
GRMN 4523	19th Century German Literature and Culture	
GRMN 4543	Contemporary German Literature and Culture	
GRMN 4550	Special Topics in German	
Total Hours		**21**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

German, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
GRMN 1713	Elementary German I (F)	3
GRMN 1813	Elementary German II (F)	3
GRMN 2713	Intermediate German (FG)	3
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division German courses with minimum grade of "C" in each course		
GRMN 2723	Intermediate German Skills I	3
GRMN 2823	Intermediate German Skills II (G)	3
Select one of the following:		3
GRMN 3343	Business German	
GRMN 3463	Advanced Diction and Phonetics	
GRMN 3813	Advanced Writing Skills	
Select 21 or more hours of the following. At least six hours must be literature courses: [1]		21
GRMN 3501	Orientation to Internship Abroad	
GRMN 3502	Internship Abroad	
GRMN 3803	Advanced Conversation Skills	
GRMN 4333	Backgrounds of Modern German Civilization	
GRMN 4343	Modern Germany	
GRMN 4513	The Age of Goethe [1]	
GRMN 4523	19th Century German Literature and Culture [1]	
GRMN 4533	20th Century German Literature and Culture	
GRMN 4543	Contemporary German Literature and Culture [1]	
GRMN 4550	Special Topics in German (1-9 hours)	
GRMN 4650	Topics in German	
6 credits may be in translation:		
GRMN 4113	German Literature and Culture in Translation (G)	
LL 3663	Surveillance, Data, and Hacking in German Film and Television (H)	
LL 4123	Fairy Tales: The Brothers Grimm, Disney, and Beyond (H)	
LL 4133	Vampires, Monsters, and Other Horrors: German Film's Haunted Pasts (H)	
Select 10 upper-division hours to reach 40 hours.		10
Hours Subtotal		**40**
Electives		
Select 18 hours		18
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		

Hours Subtotal	**18**
Total Hours	**120**

[1]

At least 6 hours must be from literature courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GRMN 1713	Elementary German I (F)	3
General Education courses		13
	Hours	**16**
Spring		
GRMN 1813	Elementary German II (F)	3
General Education courses		11
	Hours	**14**

Sophomore		
Fall		
GRMN 2713	Intermediate German (FG)	3
General Education courses		12
	Hours	**15**
Spring		
GRMN 2823	Intermediate German Skills II (G)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
6 hrs Advanced German as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced German as offered (recommend advanced lit)		6
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced German as offered (recommend advanced lit)		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced German as offered		6
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

German: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, not MATH 1493) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
GRMN 1713	Elementary German I (F)	3
GRMN 1813	Elementary German II (F)	3
GRMN 2713	Intermediate German (FG)	3
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division German courses with minimum grade of "C" in each course.		
GRMN 2723	Intermediate German Skills I	3
GRMN 2823	Intermediate German Skills II (G)	3
3 credits from the following:		3
GRMN 3343	Business German	
GRMN 3463	Advanced Diction and Phonetics	
GRMN 3813	Advanced Writing Skills	
9 or more hours of German, of which at least 6 hours must be literature courses from: [1]		9
GRMN 3501	Orientation to Internship Abroad	
GRMN 3502	Internship Abroad	
GRMN 3803	Advanced Conversation Skills	
GRMN 4333	Backgrounds of Modern German Civilization	
GRMN 4343	Modern Germany	
GRMN 4513	The Age of Goethe [2]	
GRMN 4523	19th Century German Literature and Culture [2]	
GRMN 4533	20th Century German Literature and Culture	
GRMN 4543	Contemporary German Literature and Culture [2]	
GRMN 4550	Special Topics in German ((1-9) hours)	
GRMN 4650	Topics in German	
3 credits may be in translation:		
GRMN 4113	German Literature and Culture in Translation (G)	
LL 3663	Surveillance, Data, and Hacking in German Film and Television (H)	
LL 4123	Fairy Tales: The Brothers Grimm, Disney, and Beyond (H)	
LL 4133	Vampires, Monsters, and Other Horrors: German Film's Haunted Pasts (H)	
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
BADM 3113	Practical Business and Interpersonal Skills	
ECON 2003	Microeconomic Principles for Business	

EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Additional hours to reach the required 42 hours may be taken from the following:		12
GEOG 3723	Europe (GS)	
POLS 3143	European Politics (G)	
HTM 3223	International Travel and Tourism (G)	
LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 4613	International Management (G)	
MKTG 3993	International Business (G)	
MKTG 4553	International Marketing	
Hours Subtotal		**42**
Electives		
Select 16 hours.		16
May need to include 13 hours upper-division hours.		
Hours Subtotal		**16**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

Literature course options include GRMN 4153, GRMN 4163, GRMN 4513, GRMN 4523, and GRMN 4543.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
GRMN 1713	Elementary German I (F)	3
General Education courses		13
	Hours	**16**
Spring		
GRMN 1813	Elementary German II (F)	3
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
GRMN 2713	Intermediate German (FG)	3
General Education courses		12
	Hours	**15**
Spring		
GRMN 2823	Intermediate German Skills II (G)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
3 hrs Advanced German as offered		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
3 hrs Advanced German as offered (recommend German lit)		3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
3 hrs Advanced German as offered (recommend German lit)		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
3 hrs Advanced German as offered		3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

German: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
GRMN 1713	Elementary German I (F)	3
GRMN 1813	Elementary German II (F)	3
GRMN 2713	Intermediate German (FG)	3
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division German courses with minimum grade of "C" in each course		
GRMN 2723	Intermediate German Skills I	3
GRMN 2823	Intermediate German Skills II (G)	3
3 credits from the following:		3
GRMN 3343	Business German	
GRMN 3463	Advanced Diction and Phonetics	
GRMN 3813	Advanced Writing Skills	
Select 21 or more hours of German of the following: [1]		21
GRMN 3501	Orientation to Internship Abroad	
GRMN 3502	Internship Abroad	
GRMN 3803	Advanced Conversation Skills	
GRMN 4333	Backgrounds of Modern German Civilization	
GRMN 4343	Modern Germany	
GRMN 4513	The Age of Goethe [1]	
GRMN 4523	19th Century German Literature and Culture [1]	
GRMN 4533	20th Century German Literature and Culture	
GRMN 4543	Contemporary German Literature and Culture [1]	
GRMN 4550	Special Topics in German (1-9 hours)	
GRMN 4650	Topics in German	
3 credits may be in translation:		
GRMN 4113	German Literature and Culture in Translation (G)	
LL 3663	Surveillance, Data, and Hacking in German Film and Television (H)	
LL 4123	Fairy Tales: The Brothers Grimm, Disney, and Beyond (H)	
LL 4133	Vampires, Monsters, and Other Horrors: German Film's Haunted Pasts (H)	
Select 9 hours from the following or accredited doctoral law courses.		9
AMIS 4013	American Indian Sovereignty (D)	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
PHIL 3003	Symbolic Logic (Q)	

PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**39**
Electives		
Select 19 hours		19
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
Hours Subtotal		**19**
Total Hours		**120**

[1]

At least 6 hours must be from literature courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
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Example Plan of Study

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Fall		
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General Education courses		13
	Hours	**16**
Spring		
GRMN 1813	Elementary German II (F)	3
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
GRMN 2713	Intermediate German (FG)	3
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		9
	Hours	**15**
Spring		
GRMN 2823	Intermediate German Skills II (G)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
6 hrs Advanced German as offered		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced German as offered (recommend German lit)		6
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced German as offered (recommend German lit)		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
6 hrs Advanced German as offered		6
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Greek (GREK), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 21

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
GREK 1713	Elementary Classical Greek I	3
GREK 1813	Elementary Classical Greek II	3
GREK 2713	Elementary Classical Greek III	3
GREK 2813	Intermediate Readings	3
Upper-Level Requirements		
Nine hours from:		9
GREK 3330	Advanced Readings	
Total Hours		**21**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Japanese (JPN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
JAPN 1713	Elementary Japanese I	3
JAPN 1813	Elementary Japanese II	3
JAPN 2713	Intermediate Japanese I	3
JAPN 2813	Intermediate Japanese II	3
Upper-Level Requirements		
JAPN 3723	Advanced Readings in Japanese	3
JAPN 3823	Advanced Japanese II	3
Total Hours		**18**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Korean (KRN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
KRN 1713	Elementary Korean I	3
KRN 1813	Elementary Korean II	3
KRN 2713	Intermediate Korean I	3
KRN 2813	Intermediate Korean II	3
Upper-Level Requirements		
KRN 3723	Advanced Korean Grammar and Conversation I	3
KRN 3823	Advanced Korean Grammar and Conversation II	3
Total Hours		**18**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Latin (LATN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 21

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
LATN 1713	Elementary Latin I	3
LATN 1813	Elementary Latin II	3
LATN 2713	Elementary Latin III	3
LATN 2813	Intermediate Readings	3
Upper-Level Requirements		
Select nine hours from the following:		9
LATN 3123		
LATN 3223		
LATN 3330	Advanced Readings in Latin	
LATN 4113		
Total Hours		**21**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Professional Chinese (PRCH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C" in all upper-division courses

Code	Title	Hours
Minor Requirements		
A minimum number of credit hours of lower-division language coursework is required to prepare for advanced language. Please see advisor for details.		6-9
CHIN 3343	Business Chinese	3
Select two additional courses from upper-division CHIN		6
CHIN 3713		
CHIN 3813		
CHIN 4713	Advanced Readings in Chinese	
or CHIN 4813	Advanced Chinese Conversation	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Professional Spanish, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 24

Code	Title	Hours
Lower-Division Requirements		
Select 12 hours from the following (may be satisfied through placement):		12
SPAN 1713	Elementary Spanish I	
SPAN 1813	Elementary Spanish II	
SPAN 2713	Intermediate Spanish	
SPAN 2723	Intermediate Hispanic Culture and Media	
SPAN 2813	Intermediate Reading and Conversation	
SPAN 2823	Intermediate Composition and Grammar	
Upper-Division Courses		
Required Courses:		
SPAN 3343	Business Spanish	3
SPAN 4323	Culture and Civilization of Spain	3
or SPAN 4333	Culture and Civilization of Latin America	
Electives		
Select 6 hours from the following:		6
SPAN 3053	Introduction to Literatures and Cultures in Spanish	
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 3193	Modern and Contemporary Latin American Literature	
SPAN 3203	Advanced Conversation	
SPAN 3213	Advanced Grammar and Composition	
SPAN 3403	Introduction to Hispanic Linguistics	
SPAN 3463	Spanish Phonetics and Phonology	
SPAN 4123	Hispanic Poetry	
SPAN 4133	Hispanic Prose	
SPAN 4163	Don Quijote	
SPAN 4173	Hispanic Drama	
SPAN 4183	Spain and Islam	
SPAN 4193	Hispanic Film	
SPAN 4223	Contemporary Hispanic Literature	
SPAN 4253	Masterpieces of Hispanic Literature I	
SPAN 4263	Masterpieces of Hispanic Literature II	
SPAN 4413	Advanced Stylistics	
SPAN 4443	History of the Spanish Language	
SPAN 4463	Sociolinguistics of the Spanish-Speaking World	
SPAN 4550	Seminar in Spanish	
Total Hours		**24**

Russian (RUSS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

The completion of all lower-division coursework or equivalent proficiency in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
RUSS 1713	Elementary Russian I	3
RUSS 1813	Elementary Russian II	3
RUSS 2713	Intermediate Russian I	3
RUSS 2813	Intermediate Russian II	3
Upper-Level Requirements		
Select two courses from the following:		6
RUSS 3003		
RUSS 3053		
RUSS 3113	Russian Conversation	
RUSS 3123		
RUSS 3223	Russian Composition	
RUSS 4013	Survey of Russian Literature I	
RUSS 4023	Survey of Russian Literature II	
RUSS 4113		
RUSS 4123	Russian Literature in Translation II	
RUSS 4223	Russian Reading Skills	
Total Hours		**18**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Spanish (SPAN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Overall Grade Point Average: 2.50
Total Hours: 24

The completion of all lower-division coursework or its equivalent in same language to be followed by:

Code	Title	Hours
Language Sequence Requirements		
SPAN 1713	Elementary Spanish I	3
SPAN 1813	Elementary Spanish II	3
SPAN 2713	Intermediate Spanish	3
SPAN 2723	Intermediate Hispanic Culture and Media	3
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
Upper-Level Requirements		
Selet six hours from the following:		6
SPAN 3053	Introduction to Literatures and Cultures in Spanish	
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 3193	Modern and Contemporary Latin American Literature	
SPAN 3203	Advanced Conversation	
SPAN 3213	Advanced Grammar and Composition	
SPAN 3343	Business Spanish	
SPAN 3363	Spanish for Healthcare Professionals	
SPAN 3403	Introduction to Hispanic Linguistics	
SPAN 3463	Spanish Phonetics and Phonology	
SPAN 4123	Hispanic Poetry	
SPAN 4133	Hispanic Prose	
SPAN 4143	Short Novels in Hispanic Literature	
SPAN 4163	Don Quijote	
SPAN 4173	Hispanic Drama	
SPAN 4183	Spain and Islam	
SPAN 4193	Hispanic Film	
SPAN 4203	Hispanic Music	
SPAN 4213	Short Stories in Hispanic Literature	
SPAN 4223	Contemporary Hispanic Literature	
SPAN 4253	Masterpieces of Hispanic Literature I	
SPAN 4263	Masterpieces of Hispanic Literature II	
SPAN 4323	Culture and Civilization of Spain	
SPAN 4333	Culture and Civilization of Latin America	
SPAN 4413	Advanced Stylistics	
SPAN 4443	History of the Spanish Language	
SPAN 4463	Sociolinguistics of the Spanish-Speaking World	
SPAN 4550	Seminar in Spanish	
SPAN 4650	Topics in Spanish	
Total Hours		**24**

Other Requirements

- No grade below "C" in all upper-division courses

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Spanish, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
SPAN 1713	Elementary Spanish I (F)	3
SPAN 1813	Elementary Spanish II (F)	3
SPAN 2713	Intermediate Spanish (F)	3
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division Spanish courses with a minimum grade of "C" in each course		
SPAN 2723	Intermediate Hispanic Culture and Media	3
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
SPAN 3213	Advanced Grammar and Composition	3
SPAN 4323	Culture and Civilization of Spain	3
or SPAN 4333	Culture and Civilization of Latin America	
Select 3 hours of the following:		3
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 3193	Modern and Contemporary Latin American Literature	
Select 12 or more hours of Spanish from the following. At least six hours must be literature or linguistics courses: [1]		12
SPAN 3053	Introduction to Literatures and Cultures in Spanish [1]	
SPAN 3203	Advanced Conversation	
SPAN 3343	Business Spanish	
SPAN 3363	Spanish for Healthcare Professionals	
SPAN 3403	Introduction to Hispanic Linguistics [1]	
SPAN 3463	Spanish Phonetics and Phonology [1]	
SPAN 4123	Hispanic Poetry [1]	
SPAN 4133	Hispanic Prose [1]	
SPAN 4143	Short Novels in Hispanic Literature [1]	
SPAN 4163	Don Quijote [1]	
SPAN 4173	Hispanic Drama [1]	
SPAN 4183	Spain and Islam [1]	
SPAN 4193	Hispanic Film [1]	
SPAN 4203	Hispanic Music [1]	
SPAN 4213	Short Stories in Hispanic Literature [1]	
SPAN 4223	Contemporary Hispanic Literature [1]	
SPAN 4253	Masterpieces of Hispanic Literature I [1]	
SPAN 4263	Masterpieces of Hispanic Literature II [1]	
SPAN 4413	Advanced Stylistics	
SPAN 4443	History of the Spanish Language [1]	
SPAN 4453	Voices of US Spanish: Identity and Variation [1]	

SPAN 4463	Sociolinguistics of the Spanish-Speaking World [1]	
SPAN 4550	Seminar in Spanish (1-9 hours)	
SPAN 4650	Topics in Spanish ((1-9 hours))	
SPAN 5110	Advanced Hispanic Studies (1-9 hours)	
LL 3500	Specialized Study in a Modern Language	
LL 4000	Specialized Studies in Languages and Literatures	
LL 5210	Graduate Studies in Languages	
Select 10 upper-division hours to reach 40 hours.		10
Hours Subtotal		**40**
Electives		
Select 18 hours		18
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
Hours Subtotal		**18**
Total Hours		**120**

[1]

At least 6 hours must be from literature or linguistics courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
SPAN 1713	Elementary Spanish I (F)	3
General Education courses		11
	Hours	**14**
Spring		
SPAN 1813	Elementary Spanish II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
SPAN 2713	Intermediate Spanish (F)	3
(SPAN 2723 no longer required)		
General Education courses		12
	Hours	**15**
Spring		
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
SPAN 3053	Introduction to Literatures and Cultures in Spanish	3
SPAN 3213	Advanced Grammar and Composition	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
SPAN 3163 or SPAN 3173 or SPAN 3183 or SPAN 3193	Literature of Medieval and Early Modern Spain or Literature of Spain from 1700 to the Present or Early Latin American Literature or Modern and Contemporary Latin American Literature	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
6 hrs Advanced Spanish lit and Elective		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
SPAN 4323 or SPAN 4333	Culture and Civilization of Spain or Culture and Civilization of Latin America	3
3 hrs Advanced Spanish Elective		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Spanish: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one from the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, not MATH 1493) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
SPAN 1713	Elementary Spanish I (F)	3
SPAN 1813	Elementary Spanish II (F)	3
SPAN 2713	Intermediate Spanish (F)	3
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division Spanish courses with a minimum grade of "C" in each course.		
SPAN 2723	Intermediate Hispanic Culture and Media	3
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar (or equivalent proficiency)	3
SPAN 3213	Advanced Grammar and Composition	3
SPAN 3343	Business Spanish	3
SPAN 4323	Culture and Civilization of Spain	3
or SPAN 4333	Culture and Civilization of Latin America	
3 hours from:		3
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 3193	Modern and Contemporary Latin American Literature	
9 or more hours of Spanish, of which at least 6 hours must be literature or linguistics courses, from: [2]		9
SPAN 3053	Introduction to Literatures and Cultures in Spanish [2]	
SPAN 3203	Advanced Conversation	
SPAN 3363	Spanish for Healthcare Professionals	
SPAN 3403	Introduction to Hispanic Linguistics [2]	
SPAN 3463	Spanish Phonetics and Phonology [2]	
SPAN 4123	Hispanic Poetry [2]	
SPAN 4133	Hispanic Prose [2]	
SPAN 4143	Short Novels in Hispanic Literature [2]	
SPAN 4163	Don Quijote [2]	
SPAN 4173	Hispanic Drama [2]	
SPAN 4183	Spain and Islam [2]	
SPAN 4193	Hispanic Film [2]	
SPAN 4203	Hispanic Music [2]	
SPAN 4213	Short Stories in Hispanic Literature [2]	
SPAN 4223	Contemporary Hispanic Literature [2]	
SPAN 4253	Masterpieces of Hispanic Literature I [2]	
SPAN 4263	Masterpieces of Hispanic Literature II [2]	
SPAN 4413	Advanced Stylistics	
SPAN 4443	History of the Spanish Language [2]	
SPAN 4453	Voices of US Spanish: Identity and Variation [2]	

SPAN 4463	Sociolinguistics of the Spanish-Speaking World [2]	
SPAN 4550	Seminar in Spanish (1-9 hours) [2]	
SPAN 4650	Topics in Spanish [2]	
SPAN 5110	Advanced Hispanic Studies (1-9 hours)	
LL 3500	Specialized Study in a Modern Language	
LL 4000	Specialized Studies in Languages and Literatures	
LL 5210	Graduate Studies in Languages	
Business Essentials		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Additional hours to reach the required 42 hours may be taken from the following:		
GEOG 3723	Europe (GS)	
GEOG 3743	Latin America (GS)	
POLS 3143	European Politics (G)	
POLS 3193	Latin American Politics (GS)	
HTM 3223	International Travel and Tourism (G)	
LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 4613	International Management (G)	
MKTG 3993	International Business (G)	
MKTG 4553	International Marketing	
Hours Subtotal		**42**
Electives		
16 hours of Electives		16
May need to include 13 hours upper-division general education hours.		
Hours Subtotal		**16**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

At least 6 hours must be from literature or linguistics courses marked with a [2].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
SPAN 1713	Elementary Spanish I (F)	3
General Education courses		11
	Hours	**14**
Spring		
SPAN 1813	Elementary Spanish II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
SPAN 2713	Intermediate Spanish (F)	3
(SPAN 2723 no longer required)		
General Education courses		12
	Hours	**15**
Spring		
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
SPAN 3213	Advanced Grammar and Composition	3
SPAN 3343	Business Spanish	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
SPAN 3163 or SPAN 3173 or SPAN 3183 or SPAN 3193	Literature of Medieval and Early Modern Spain (Major, College, and Elective courses) or Literature of Spain from 1700 to the Present or Early Latin American Literature or Modern and Contemporary Latin American Literature	3
3 hrs Advanced Spanish Elective		3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced Spanish Elective		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
SPAN 4323 or SPAN 4333	Culture and Civilization of Spain or Culture and Civilization of Latin America	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Spanish: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
SPAN 1713	Elementary Spanish I (F)	3
SPAN 1813	Elementary Spanish II (F)	3
SPAN 2713	Intermediate Spanish (F)	3
Non-Western Studies		
Select at least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 in upper-division Spanish courses with a minimum grade of "C" in each course		
SPAN 2723	Intermediate Hispanic Culture and Media	3
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
SPAN 3213	Advanced Grammar and Composition	3
SPAN 4323	Culture and Civilization of Spain	3
or SPAN 4333	Culture and Civilization of Latin America	
Select 3 hours of the following:		3
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 3193	Modern and Contemporary Latin American Literature	
Select 12 or more hours of Spanish from the following. At least six hours must be literature or linguistics courses: [1]		12
SPAN 3053	Introduction to Literatures and Cultures in Spanish [1]	
SPAN 3203	Advanced Conversation	
SPAN 3343	Business Spanish	
SPAN 3363	Spanish for Healthcare Professionals	
SPAN 3403	Introduction to Hispanic Linguistics [1]	
SPAN 3463	Spanish Phonetics and Phonology [1]	
SPAN 4123	Hispanic Poetry [1]	
SPAN 4133	Hispanic Prose [1]	
SPAN 4143	Short Novels in Hispanic Literature [1]	
SPAN 4163	Don Quijote [1]	
SPAN 4173	Hispanic Drama [1]	
SPAN 4183	Spain and Islam [1]	
SPAN 4193	Hispanic Film [1]	
SPAN 4203	Hispanic Music [1]	
SPAN 4213	Short Stories in Hispanic Literature [1]	
SPAN 4223	Contemporary Hispanic Literature [1]	
SPAN 4253	Masterpieces of Hispanic Literature I [1]	
SPAN 4263	Masterpieces of Hispanic Literature II [1]	
SPAN 4413	Advanced Stylistics	
SPAN 4443	History of the Spanish Language [1]	

SPAN 4453	Voices of US Spanish: Identity and Variation [1]	
SPAN 4463	Sociolinguistics of the Spanish-Speaking World [1]	
SPAN 4550	Seminar in Spanish (1-9 hours) [1]	
SPAN 4650	Topics in Spanish [1]	
SPAN 5110	Advanced Hispanic Studies (1-9 hours)	
LL 3500	Specialized Study in a Modern Language	
LL 4000	Specialized Studies in Languages and Literatures	
LL 5210	Graduate Studies in Languages	
Select 9 hours from the following or accredited doctoral law courses.		9
AMIS 4013	American Indian Sovereignty (D)	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**39**
Electives		
Select 19 hours		19
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 12 additional upper-division hours		
Hours Subtotal		**19**
Total Hours		**120**

1

At least 6 hours must be from literature or linguistics courses marked with a [1].

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council

on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
SPAN 1713	Elementary Spanish I (F)	3
General Education courses		11
	Hours	**14**
Spring		
SPAN 1813	Elementary Spanish II (F)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
SPAN 2713	Intermediate Spanish (F)	3
(SPAN 2723 no longer required)		
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		9
	Hours	**15**
Spring		
SPAN 2813	Intermediate Reading and Conversation	3
SPAN 2823	Intermediate Composition and Grammar	3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
SPAN 3213	Advanced Grammar and Composition	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
SPAN 3163 or SPAN 3173 or SPAN 3183 or SPAN 3193	Literature of Medieval and Early Modern Spain (Major, College, and Elective courses) or Literature of Spain from 1700 to the Present or Early Latin American Literature or Modern and Contemporary Latin American Literature	3
3 hrs Advanced Spanish Elective		3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
6 hrs Advanced Spanish Elective		6
Major, College, and Elective courses		9
	Hours	**15**
Spring		
SPAN 4323 or SPAN 4333	Culture and Civilization of Spain (Major, College, and Elective courses) or Culture and Civilization of Latin America	3
3 hrs Advanced Spanish Elective		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Mathematics

Math is the language of science and a vital part of both cutting-edge research and daily life. Contemporary mathematics investigates such basic concepts as space and number and also the formulation and analysis of mathematical models arising from applications. Mathematics has always had close relationships to the physical sciences and engineering. As the biological, social, and management sciences have become increasingly quantitative, the mathematical sciences have moved in new directions to support these fields.

Mathematicians teach in high schools and colleges, do research and teach at universities, and apply mathematics in business, industry, and government. Outside of education, mathematicians usually work in research and analytical positions, although they have become increasingly involved in management. Firms in the aerospace, communications, computer, defense, electronics, energy, finance, and insurance industries employ many mathematicians. In such employment, a mathematician typically serves either in a consulting capacity, giving advice on mathematical problems to engineers and scientists, or as a member of a research team composed of specialists in several fields. Among the qualities that a mathematician should possess are breadth of interests and outlook, the ability to think abstractly, and a keen interest in problem-solving.

An undergraduate specializing in mathematics will usually begin with calculus. All math majors take courses in differential equations, linear algebra, abstract algebra, analysis, computer programming, and statistics. The student's interests and future plans determine the remainder of the field of concentration.

Undergraduate degree options are available to prepare students for:

1. employment as an applied mathematician or data scientist in industry, business or government;
2. employment as an actuary or financial analyst;
3. secondary school mathematics teaching; and
4. graduate study in mathematics, business or finance, law, medicine, or other areas.

Students choosing secondary school teaching complete all requirements for state certification as part of this program.

Many of the more challenging positions in mathematics require study beyond a bachelor's degree. For example, university faculty are required to hold a PhD, while teaching in a community college requires at least a master's degree and possibly a doctorate. Approximately 25 percent of the students receiving a bachelor's degree in mathematics go on to graduate work.

Courses

MATH 1483 Mathematical Functions and Their Uses (Q)
Prerequisites: An acceptable placement score - see placement.okstate.edu.
Description: Analysis of functions and their graphs from the viewpoint of rates of change. Linear, exponential, logarithmic and other functions. Applications to the natural sciences, agriculture, business and the social sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1493 Applications of Modern Mathematics (Q)
Prerequisites: An acceptable placement score (see placement.okstate.edu).
Description: Introduction to contemporary applications of discrete mathematics. Topics from management science, statistics, coding and information theory, social choice and decision making, geometry and growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1513 College Algebra (Q)
Prerequisites: An acceptable placement score (see placement.okstate.edu). Two years of high school algebra recommended.
Description: Quadratic equations, functions and graphs, inequalities, systems of equations, exponential and logarithmic functions, theory of equations, sequences, permutations and combinations. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1583 Applied Geometry and Trigonometry (Q)
Prerequisites: A grade of "C" or better in one of MATH 1483 or MATH 1513, or an acceptable placement score (see placement.okstate.edu).
Description: Geometry, trigonometry, and their applications to technology and design. Not intended for calculus-bound students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1613 Trigonometry (Q)
Prerequisites: MATH 1513 with grade of "C" or better or an acceptable placement score (see placement.okstate.edu).
Description: Trigonometric functions, solution of triangles and applications to physical sciences. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1715 Precalculus (Q)
Prerequisites: An acceptable placement score (see http://placement.okstate.edu). One year of high school geometry and two years of high school algebra recommended.
Description: Includes an integrated treatment of topics from College Algebra and Trigonometry. Combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 limited to six hours. Satisfies the six hour general education Analytical and Quantitative Thought requirement.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 1813 Preparation for Calculus (Q)
Prerequisites: MATH 1513 with grade of "C" or better or an acceptable placement score (see placement.okstate.edu).
Description: A conceptual approach to the algebra and trigonometry needed for calculus, including polynomial, rational, exponential, logarithmic, and trigonometric functions, inverse and composite functions, rates of change and the limiting process. Combined credit towards a degree for MATH 1513, MATH 1613, and MATH 1813 limited to six hours. May not be used for degree credit with MATH 1715.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought
Additional Fees: MATH Corequisite Lab fee of $90 applies.

MATH 1910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 2103 Business Calculus (Q)
Prerequisites: A grade of "C" or better in one of MATH 1483 or MATH 1513 or MATH 1715 or MATH 1813, or an acceptable placement score (see http://placement.okstate.edu).
Description: An introduction to calculus in the context of applications to business. Previously offered as MATH 2713.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2123 Calculus for Technology Programs I (Q)
Prerequisites: MATH 1613 with a grade of "C" or better, or MATH 1715 with a grade of "C" or better, or MATH 1813 with a grade of "C" or better, or an acceptable placement score (see placement.okstate.edu).
Description: First semester of a terminal sequence in calculus for students in the School of Technology. Functions and graphs, differentiation and integration with applications. Previously offered as MATH 2373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2133 Calculus for Technology Programs II (Q)
Prerequisites: A grade of "C" or better in MATH 2123 or in MATH 2144.
Description: Second semester of a terminal sequence in calculus for students in the School of Technology. Calculus of trigonometric, exponential and logarithmic functions and applications to physical problems. Previously offered as MATH 2383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2144 Calculus I (Q)
Prerequisites: MATH 1613 with grade of "C" or better, or MATH 1715 with grade of "C" or better, or MATH 1813 with grade of "C" or better, or an acceptable placement score (see placement.okstate.edu).
Description: An introduction to derivatives, integrals and their applications. Previously offered as MATH 2145 and MATH 2265.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2153 Calculus II (Q)
Prerequisites: MATH 2144 with grade of "C" or better.
Description: A continuation of MATH 2144, including techniques of integration, series and their applications, parametric equations, and polar coordinates. Previously offered as MATH 2155, MATH 2163, and MATH 2365.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 2163 Calculus III
Prerequisites: MATH 2153 with grade of "C" or better.
Description: A continuation of MATH 2153, including differential and integral calculus of functions of several variables and an introduction to vector analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 2233 Differential Equations
Prerequisites: MATH 2153 with grade of "C" or better.
Description: Methods of solution of ordinary differential equations with applications. First order equations, linear equations of higher order, series solutions and Laplace transforms. Combined credit toward a degree for MATH 2233, MATH 3013, and MATH 3263 limited to six hours. Previously offered as MATH 2613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 2890 Honors Experience in Math
Prerequisites: Honors College participation and concurrent enrollment in a designated MATH course.
Description: A supplemental Honors experience in mathematics to partner concurrently with designated MATH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 2900 Undergraduate Research
Prerequisites: Consent of Instructor.
Description: A guided program of independent reading and research under the direction of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 2910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit. 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 3013 Linear Algebra (Q)
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Algebra and geometry of finite-dimensional linear spaces, linear transformations, algebra of matrices, eigenvalues and eigenvectors. Combined credit toward a degree for MATH 2233, MATH 3013 and MATH 3263 limited to six hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Analytical & Quant Thought

MATH 3263 Linear Algebra and Differential Equations
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: An integrated treatment of linear algebra and differential equations. Combined credit toward a degree for MATH 2233, MATH 3013, and MATH 3263 limited to six hours. Previously offered as MATH 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3303 Advanced Perspectives on Secondary Mathematics
Prerequisites: MATH 2153 with grade of "C" or better.
Description: A conceptually rigorous treatment of topics in secondary mathematics including functions, rates of change, and modeling with linear, exponential, logarithmic, and trigonometric functions. Emphasis on articulating ideas and developing pre-service teachers' ability to teach for understanding. No credit towards the MATH minor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3403 Geometric Structures for Early Childhood and Elementary Teachers
Prerequisites: MATH 1483 or MATH 1493 or MATH 1513.
Description: Foundations of geometry for prospective early childhood and elementary teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing elementary students' thinking. Topics include measurement, area, volume, transformations, scaling and similarity, angles, circles, quadrilaterals, and triangles. MATH 3403 and MATH 3603 prepare students for SMED 3153 and SMED 4153 or HDFS 3223. Previously offered as MATH 3733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3583 Introduction to Mathematical Modeling
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: A project-based introduction to mathematical modeling: model building, computation and simulation, model verification, interpretation, and refinement. Students will create and analyze mathematical models to solve problems in scientific or business contexts. Techniques may include discrete or continuous models, dynamical systems, differential equations, empirical modeling, and other approaches. Written reports and oral presentations required. May not be used for degree credit with MATH 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3603 Mathematical Structures for Early Childhood and Elementary Teachers
Prerequisites: MATH 1483 or MATH 1493 or MATH 1513.
Description: Foundations of number concepts for prospective early childhood and elementary teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing elementary students' thinking. Topics include the decimal number system, fractions, negative numbers, properties of arithmetic, addition, subtraction, multiplication, and division. MATH 3603 and MATH 3403 prepare students for SMED 3153 and SMED 4153 or HDFS 3223. Previously offered as MATH 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3613 Introduction to Abstract Algebra
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: An introduction to mathematical reasoning including logical structure of statements, quantifiers, basic set theory and techniques of proof. Elementary number theory including divisors and prime factorization, the Euclidean algorithm, and modular arithmetic. Introduction to rings, integral domains, fields, and polynomial rings. Previously offered as MATH 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3703 Mathematical Structures in the Middle Grades
Prerequisites: MATH 3603 and MATH 3403 with grades of "C" or better.
Description: Foundations of mathematical concepts for prospective middle school teachers, emphasizing conceptual understanding, in-class investigations, writing mathematical explanations, and analyzing students' thinking. Topics include middle-grade number concepts such as ratio and proportion, negative numbers, exponents, factors and multiples, and prime numbers, and algebra concepts such as expressions and equations. Additional topics selected from geometry, probability, or statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 3890 Advanced Honors Experience in Mathematics
Prerequisites: Honors College participation and concurrent enrollment In a designated MATH course.
Description: A supplemental Honors experience in mathematics to partner concurrently with designated upper-division MATH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 3910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 3933 Introduction to Mathematical Research
Prerequisites: MATH 3013 with grade of "C" or better; MATH 3613 with grade of "C" or better recommended.
Description: A project-based introduction to the core methods used in mathematical research: computation, pattern recognition, conjecture, proof, and generalization. Students conduct inquiries in various mathematical areas to be selected from number theory, combinatorics, game theory, and others. Calculation and computer experimentation will be used to gather data and facilitate recognition of patterns. Written reports and oral presentation of solutions required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4003 Mathematical Logic and Computability
Prerequisites: MATH 3613 or PHIL 3003 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Lowenheim-Skolem theorem, undecidability of first order logic, Godel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Godel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as PHIL 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4013 Calculus of Several Variables
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Differential and integral calculus of functions of several variables, vector analysis, Stokes' Theorem, Green's Theorem and applications. May not be used for degree credit with MATH 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4023 Introduction to Analysis
Prerequisites: MATH 2153 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to analysis of functions of one real variable emphasizing the reading and writing of mathematical proof. Basic logic, set theory, functions and relations, cardinality of sets. Structure of the real numbers, completeness, open and closed sets, compact sets. Convergence of sequences bounded and monotone sequences, subsequences. Limits of functions, continuity. May not be used for degree credit with MATH 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4033 History of Mathematics
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Historical development of major mathematical ideas and methods from ancient times through the 18th century, with a brief survey of selected later developments. Includes contributions from diverse cultures and influences from astronomy and physics. The course will emphasize understanding historical techniques and relating them to current practice. The course provides background and historical perspectives for future math teachers. May not be used for degree credit with MATH 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4063 Advanced Linear Algebra
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of vector spaces, linear transformations, determinants, orthogonal and unitary transformations, canonical forms, bilinear and hermitian forms, and dual spaces. Honors and regular sections are offered and meet with MATH 5023. May not be used for degree credit with MATH 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4083 Intermediate Analysis
Prerequisites: MATH 4023 with grade of "C" or better.
Description: Continuation of MATH 4023. Review of limits and continuity. Properties of continuous functions, uniform continuity, the derivative, the Mean Value Theorem. The Riemann integral, the Fundamental Theorem of Calculus. Infinite series, power series, pointwise and uniform convergence of series of functions. May not be used for degree credit with MATH 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4143 Advanced Calculus I
Prerequisites: MATH 2163, MATH 3013, and MATH 4023 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of calculus for functions of one and several variables. Elementary topology of Euclidean and metric spaces, continuity and uniform continuity, differentiation and integration in one variable. Honors and regular sections are offered and meet with MATH 5043. May not be used for degree credit with MATH 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4153 Advanced Calculus II
Prerequisites: MATH 4143 with grade of "C" or better; grade of "B" or better recommended.
Description: Continuation of MATH 4143. A rigorous treatment of sequences and series of functions, uniform convergence, and differentiation and integration of vector-valued functions. Honors and regular sections are offered and meet with MATH 5053. May not be used for degree credit with MATH 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4233 Intermediate Differential Equations
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Systems of differential equations, series solutions, special functions, elementary partial differential equations, Sturm-Liouville problems, stability and applications. Previously offered as MATH 4653. May not be used for degree credit with MATH 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4263 Introduction to Partial Differential Equations
Prerequisites: MATH 2163 and MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Solution of the standard partial differential equations (Laplace's equation, transport equation, heat equation, wave equation) by separation of variables and transform methods, including eigenfunction expansions, Fourier and Laplace transform. Boundary value problems, Sturm-Liouville theory, orthogonality, Fourier, Bessel, and Legendre series, spherical harmonics. May not be used for degree credit with MATH 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4283 Functions of a Complex Variable
Prerequisites: MATH 4013 with a grade of "C" or better, or consent of instructor.
Description: Analytic functions of a complex variable, contour integrals, Taylor series and Laurent series, zeroes and singularities, residues and evaluation of integrals, conformal mapping, and applications. Previously offered as MATH 4673. May not be used for degree credit with MATH 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4343 Introduction to Topology
Prerequisites: MATH 4023 with a grade of "C" or better.
Description: Topological spaces, basic point-set topology, introduction to surfaces and three-manifolds, introduction to knot theory, applications. May not be used for degree credit with MATH 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4403 Geometry
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better.
Description: A rigorous and thorough development of plane geometry including lines, triangles, and circles. Congruence of figures using rigid motions and similarity using dilations. Construction of geometric figures. Additional topics may include non-Euclidean geometries and higher dimensional geometry. Previously offered as MATH 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4423 Geometry and Algorithms in Three-Dimensional Modeling
Prerequisites: MATH 2163 and MATH 3013 and (CS 1103 or CS 1113 or ENGR 1412) with grades of "C" or better.
Description: A project-based introduction to 3D computer-aided design tools from a mathematical perspective. Students will learn some of the mathematical background behind computer representation and manipulation of 3D geometry and will apply their knowledge, via both graphical user and programming interfaces, to design and 3D-print models visualizing mathematical concepts. Written reports and oral presentation required. May not be used for degree credit with MATH 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4443 Differential Geometry of Curves and Surfaces
Prerequisites: MATH 2163, Calculus III, and MATH 3013, Linear Algebra, with grades of "C" or better.
Description: Calculus applied to curves and surfaces in three dimensions: length and curvature of plane curves, graphs and level sets, surfaces, tangent spaces, vector fields, orientation. Local and global theory of curves and surfaces, intrinsic and extrinsic geometry, the Gauss-Bonnet Theorem, applications. May not be used for degree credit with MATH 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4453 Mathematical Interest Theory
Prerequisites: MATH 2153 and MATH 2233 with grades of "C" or better.
Description: Fundamental concepts of financial mathematics including simple and compound interest, inflation, yield rates, and equations of value for annuities, stocks, bonds, and other financial instruments. Determining equivalent measures of interest, determining yield rates, estimating rates of return, amortization. Useful in preparing for the actuarial FM exam. May not be used for degree credit with MATH 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better and knowledge of programming, or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems for equations. Same course as CS 4513. May not be used for degree credit with MATH 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4533 Matrix Methods in Machine Learning
Prerequisites: MATH 3013 with grade of “C” or better and knowledge of computer programming, or consent of instructor.
Description: Introduction to matrix methods and other mathematical tools used in machine learning. Topics include linear equations, matrix factorizations, eigenvalue and singular value decompositions, and real-world applications such as data mining and pattern recognition. May not be used for degree credit with MATH 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4553 Introduction to Optimization
Prerequisites: MATH 2163 and MATH 3013 with grades of "C " or better.
Description: A survey of optimization theory and methods for functions of several variables. Unconstrained optimization, gradient methods. Linear programming, simplex method, duality. Nonlinear constrained optimization. May not be used for degree credit with MATH 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4573 Introduction to Mathematical Epidemiology
Prerequisites: MATH 2163, Calculus III, Math 2233, Differential Equations, and MATH 3013, Linear Algebra, with grades of "C" or better; and basic experience in coding in MATLAB, Python, R, or similar programming language or consent of instructor.
Description: An introduction to the process of applying mathematical and computational techniques to understand the dynamics of infectious diseases. Classical epidemic models including the Kermack-McKendrick SIR model and its variations. The basic reproduction number as a measure of pathogen transmissibility. Mathematical aspects of epidemic models including steady states and stability analysis. Numerical solutions and simulations of infectious disease models. Includes independent projects, written reports, and oral presentations. May not be used for degree credit with MATH 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4590 Professional Practice in Mathematics
Prerequisites: Declared major in mathematics and consent of instructor.
Description: Internship or practicum experience applying mathematical principles to solve problems encountered during employment or an internship in business, industry, or government. Written and oral reports may be required. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4613 Abstract Algebra I
Prerequisites: MATH 3613 with grade of “C” or better; grade of “B” or better recommended.
Description: A rigorous treatment of group theory including subgroups and quotient groups, isomorphism and homomorphism, structure theory, group actions, and the Sylow theorems. Introduction to rings, ideals, and homomorphisms. Honors and regular sections are offered and meet with MATH 5003. May not be used for degree credit with MATH 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4623 Abstract Algebra II
Prerequisites: MATH 4613 with grade of “C” or better; grade of “B” or better recommended.
Description: Continuation of MATH 4613. A rigorous treatment of ring theory including ideals, homomorphism, unique factorization domains, principal ideal domains, modules and vector spaces. Field theory and Galois theory. Honors and regular sections are offered and meet with MATH 5013. May not be used for degree credit with MATH 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4663 Combinatorics
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: Introduction to graph theory and network theory, counting techniques, generating functions, recurrence relations, and difference equations. Previously offered as MATH 4273. May not be used for degree credit with MATH 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4713 Number Theory
Prerequisites: MATH 3613 with a grade of "C" or better.
Description: Divisibility of integers, congruencies, quadratic residues, distribution of primes, continued fractions and the theory of ideals. Previously offered as MATH 4243. May not be used for degree credit with MATH 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4753 Introduction to Cryptography
Prerequisites: MATH 3013 and (MATH 3613 or CS 3653) with grades of "C" or better.
Description: Classical and modern techniques for transmitting and managing information in the presence of eavesdroppers or adversaries and the mathematical principles on which they are based. Symmetric and asymmetric ciphers such as RSA and public key cryptography. Modular arithmetic, the factoring problem, and the discrete logarithm problem. May not be used for degree credit with MATH 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4813 Groups and Representations
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to groups, group actions, symmetry groups, representations and characters. Further topics may include infinite symmetry groups, applications to chemistry and physics, finite isometry groups and geometry. May not be used for degree credit with MATH 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4900 Undergraduate Research
Prerequisites: Consent of instructor.
Description: A guided program of independent reading and research under the direction of a faculty member. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4950 Problem Solving Seminar
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: The general process of problem solving. Selected problem-solving techniques. Applications to challenging problems from all areas of mathematics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mathematics

MATH 4963 Preparation for Senior Thesis
Prerequisites: Consent of instructor, junior or senior standing.
Description: A guided program of independent reading and research under the direction of a faculty member. This course may serve as the first part of a two-semester senior thesis or senior honors thesis experience.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4973 Senior Thesis
Prerequisites: Consent of instructor, senior standing.
Description: A guided program of independent reading and research under the direction of a faculty member. The project culminates in an oral presentation, and a written report also approved by a second faculty reader.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 4993 Senior Honors Thesis
Prerequisites: Consent of instructor, senior standing, and Honors Program participation.
Description: A guided program of independent reading and research under the direction of a faculty member. The project culminates in an oral presentation, and a written report also approved by a second faculty reader. Required for graduation with Departmental honors in mathematics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mathematics
General Education and other Course Attributes: Honors Credit

MATH 5000 Master's Research and Thesis
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in the master's report or master's thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5003 Abstract Algebra I
Prerequisites: MATH 3613 with grade of “C” or better; grade of “B” or better recommended.
Description: A rigorous treatment of group theory including subgroups and quotient groups, isomorphism and homomorphism, structure theory, group actions, and the Sylow theorems. Introduction to rings, ideals, and homomorphisms. Meets with MATH 4613. May not be used for degree credit with MATH 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5010 Seminar in Mathematics
Prerequisites: Consent of instructor.
Description: Topics in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5013 Abstract Algebra II
Prerequisites: A grade of "C" or better in one of MATH 4613 or MATH 5003; grade of "B" or better recommended.
Description: Continuation of MATH 5003. A rigorous treatment of ring theory including ideals, homomorphism, unique factorization domains, principal ideal domains, modules and vector spaces. Field theory and Galois theory. Meets with MATH 4623. May not be used for degree credit with MATH 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5023 Advanced Linear Algebra
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of vector spaces, linear transformations, determinants, orthogonal and unitary transformations, canonical forms, bilinear and Hermitian forms, and dual spaces. Meets with MATH 4063. May not be used for degree credit with MATH 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5033 History of Mathematics
Prerequisites: MATH 2153 with a grade of "C" or better.
Description: Historical development of major mathematical ideas and methods from ancient times through the 18th century, with a brief survey of selected later developments. Includes contributions from diverse cultures and influences from astronomy and physics. The course will emphasize understanding historical techniques and relating them to current practice. The course provides background and historical perspectives for future math teachers. No credit for students with credit in MATH 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5043 Advanced Calculus I
Prerequisites: MATH 2163, MATH 3013, and MATH 4023 with grades of "C" or better; grades of "B" or better recommended.
Description: A rigorous treatment of calculus for functions of one and several variables. Elementary topology of Euclidean and metric spaces, continuity and uniform continuity, differentiation and integration in one variable. Meets with MATH 4143. May not be used for degree credit with MATH 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5053 Advanced Calculus II
Prerequisites: A grade of "C" or better in one of MATH 4143 or MATH 5043; grade of "B" or better recommended.
Description: Continuation of MATH 5043. A rigorous treatment of sequences and series of functions, uniform convergence, and differentiation and integration of vector-valued functions. Meets with MATH 4153. May not be used for degree credit with MATH 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5063 Calculus of Several Variables
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Differential and integral calculus of functions of several variables, vector analysis, Stokes' Theorem, Green's Theorem and applications. May not be used for degree credit with MATH 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5073 Introduction to Analysis
Prerequisites: MATH 2153 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to analysis of functions of one real variable emphasizing the reading and writing of mathematical proof. Basic logic, set theory, functions and relations, cardinality of sets. Structure of the real numbers, completeness, open and closed sets, compact sets. Convergence of sequences bounded and monotone sequences, subsequences. Limits of functions, continuity. May not be used for degree credit with MATH 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5083 Intermediate Analysis
Prerequisites: MATH 4023 with grade of “C” or better.
Description: Continuation of MATH 4023. Review of limits and continuity. Properties of continuous functions, uniform continuity, the derivative, the Mean Value Theorem. The Riemann integral, the Fundamental Theorem of Calculus. Infinite series, power series, pointwise and uniform convergence of series of functions. May not be used for degree credit with MATH 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5133 Stochastic Processes
Prerequisites: MATH 2233, MATH 3013 and STAT 5123.
Description: Definition of stochastic processes, probability structure, mean and covariance function, the set of sample functions, stationary processes and their spectral analysis, renewal processes, counting analysis, discrete and continuous Markov chains, birth and death processes, exponential model, queuing theory. Same course as IEM 5133 & STAT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5143 Real Analysis I
Prerequisites: MATH 4153 or MATH 5053.
Description: Measure theory, measurable functions, integration and differentiation of functions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5153 Real Analysis II
Prerequisites: MATH 5143.
Description: Differentiation with respect to measures. Aspects of point set topology: nets, locally compact spaces, product spaces. Elementary functional analysis: Hahn-Banach, uniform boundedness, open mapping theorems, weak topologies, Hilbert spaces. Riesz representation theorems: duals of Lebesgue spaces and spaces of continuous functions. Other topics may include: elements of Fourier analysis, distribution theory, Stone-Weierstrass theorem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5193 Differentiable Manifolds
Prerequisites: MATH 4153 or MATH 5053; recommended MATH 4343 or MATH 5303.
Description: Differentiable manifolds and maps, tangent vectors, vector fields, integral curves, submanifolds, differential forms, and integration. Additional topics may be selected from: flows, Lie derivatives, the Frobenius theorem, structures defined by differential forms, vector bundles and de Rham theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5203 Intermediate Differential Equations
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Systems of differential equations, series solutions, special functions, elementary partial differential equations, Sturm-Liouville problems, stability and applications. Previously offered as MATH 4653. May not be used for degree credit with MATH 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5213 Fourier Analysis and Wavelets
Prerequisites: MATH 4013 or MATH 4023.
Description: Orthogonal series expansions, Fourier series and integrals and boundary value problems. Haar wavelets and multiresolution analysis. Applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5233 Partial Differential Equations
Prerequisites: MATH 4013, MATH 4143 and MATH 4233 or consent of instructor.
Description: Representation formulas for solutions of transport equation, Laplace's equation, heat equation and wave equation, mean value theorems, maximum principle, Green's functions, characteristics, eigenvalue problems, separation of variables, transform methods, variational methods, general theory of first order equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5243 Ordinary Differential Equations
Prerequisites: MATH 4143 or MATH 5043; MATH 4233; MATH 5023.
Description: Banach space, contraction mapping principle, existence and uniqueness theorems, linear systems, higher-order linear equations, boundary value and eigenvalue problems, stability and asymptotic behavior, attractors, Gronwall's inequality, Liapunov method.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5253 Advanced Ordinary Differential Equations
Prerequisites: MATH 5243.
Description: Selected topics in ordinary differential equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5263 Introduction to Partial Differential Equations
Prerequisites: MATH 2163 and MATH 2233 and MATH 3013 with grades of "C" or better.
Description: Solution of the standard partial differential equations (Laplace's equation, transport equation, heat equation, wave equation) by separation of variables and transform methods, including eigenfunction expansions, Fourier and Laplace transform. Boundary value problems, Sturm-Liouville theory, orthogonality, Fourier, Bessel, and Legendre series, spherical harmonics. May not be used for degree credit with MATH 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5273 Functions of a Complex Variable
Prerequisites: MATH 4013 with a grade of "C" or better or consent of instructor.
Description: Analytic functions of a complex variable, contour integrals, Taylor series and Laurent series, zeroes and singularities, residues and evaluation of integrals, conformal mapping, and applications. Previously offered as MATH 4673. May not be used for degree credit with MATH 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5283 Complex Analysis I
Prerequisites: MATH 4153 or MATH 5053.
Description: Basic topology of the plane, functions of a complex variable, analytic functions, transformations, infinite series, integration and conformal mapping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5293 Complex Analysis II
Prerequisites: MATH 5283.
Description: Riemann Mapping Theorem, meromorphic functions, analytic continuation, Dirichlet problem, and entire functions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5303 General Topology
Prerequisites: MATH 4143 or MATH 5043 or consent of instructor.
Description: Basic properties of topological spaces and continuous functions, including connectedness, compactness, and separation and countability axioms. Metric, product, and quotient spaces, Urysohn lemma, and Tietze extension theorem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5313 Geometric Topology
Prerequisites: MATH 4613 or MATH 5003, MATH 5303.
Description: Manifolds, complexes, the fundamental group, covering spaces, combinatorial group theory, the Seifert-Van Kampen theorem, and related topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5343 Introduction to Topology
Prerequisites: MATH 4023 with a grade of "C" or better.
Description: Topological spaces, basic point-set topology, introduction to surfaces and three-manifolds, introduction to knot theory, applications. May not be used for degree credit with MATH 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5413 Differential Geometry
Prerequisites: MATH 4013 or MATH 4143 or MATH 5043.
Description: Differential manifolds, vector fields, differential forms, connections, Riemannian metrics, geodesics, completeness, curvature, and related topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5423 Geometry and Algorithms in Three-Dimensional Modeling
Prerequisites: MATH 2163 and MATH 3013 and (CS 1113 or ENGR 1412) with grades of "C" or better.
Description: A project-based introduction to 3D computer-aided design tools from a mathematical perspective. Students will learn some of the mathematical background behind computer representation and manipulation of 3D geometry and will apply their knowledge, via both graphical user and programming interfaces, to design and 3D-print models visualizing mathematical concepts. Written reports and oral presentation required. May not be used for degree credit with MATH 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5443 Differential Geometry of Curves and Surfaces
Prerequisites: MATH 2163 and MATH 3013 with grades of "C" or better.
Description: Calculus applied to curves and surfaces in three dimensions: length and curvature of plane curves, graphs and level sets, surfaces, tangent spaces, vector fields, orientation. Local and global theory of curves and surfaces, intrinsic and extrinsic geometry, the Gauss-Bonnet Theorem, applications. May not be used for degree credit with MATH 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5453 Mathematical Interest Theory
Prerequisites: MATH 2153 and MATH 2233 with grades of "C" or better.
Description: Fundamental concepts of financial mathematics including simple and compound interest, inflation, yield rates, and equations of value for annuities, stocks, bonds, and other financial instruments. Determining equivalent measures of interest, determining yield rates, estimating rates of return, amortization. Useful in preparing for the actuarial FM exam. May not be used for degree credit with MATH 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5473 Financial Calculus
Prerequisites: MATH 4143 or MATH 5043, STAT 4203 or consent of instructor.
Description: Introduction to derivative pricing and market derivatives. Introduction to the Ito-Doeblin calculus and martingales; the martingale properties of Brownian motion, the Black-Scholes-Merton theory as a simple, special case of martingale pricing, market models of modern fixed income pricing. Insurance, hedging, and options.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5503 Introduction to Optimization
Prerequisites: MATH 2163 and MATH 3013 with grades of "C " or better.
Description: A survey of optimization theory and methods for functions of several variables. Unconstrained optimization, gradient methods. Linear programming, simplex method, duality. Nonlinear constrained optimization. May not be used for degree credit with MATH 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5513 Introduction to Numerical Analysis
Prerequisites: MATH 2233 and MATH 3013 with grades of "C" or better and knowledge of programming, or consent of instructor.
Description: Computer arithmetic and round-off errors, numerical solution to nonlinear equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, error analysis for numerical solutions and approximations. Additional topics may include direct and iterative solutions for linear systems of equations. May not be used for degree credit with MATH 4513 or CS 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5533 Matrix Methods in Machine Learning
Prerequisites: MATH 3013 with grade of “C” or better and knowledge of computer programming, or consent of instructor.
Description: Introduction to matrix methods and other mathematical tools used in machine learning. Topics include linear equations, matrix factorizations, eigenvalue and singular value decompositions, and real-world applications such as data mining and pattern recognition. May not be used for degree credit with MATH 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5543 Numerical Analysis for Differential Equations
Prerequisites: MATH 4233, MATH 4513 or CS 4513.
Description: Advanced machine computing, algorithms, analysis of truncation and rounding errors, convergence and stability applied to discrete variables, finite elements, and spectral methods in ordinary and partial differential equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5553 Numerical Analysis for Linear Algebra
Prerequisites: MATH 3013, and MATH 4513 or CS 4513.
Description: Advanced machine computing, algorithms, analysis of rounding errors, condition, convergence, and stability applied to direct and iterative solution of linear systems of equations, linear least squares problems, and algebraic eigenvalue problems, including LU and QR factorization, conjugate gradients, QR algorithm, and Lanczos method.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5563 Finite Element Methods for Partial Differential Equations
Prerequisites: MATH 4023; MATH 4263; and MATH 4513 or CS 4513 or equivalent. MATH 4143 or MATH 5043 preferred.
Description: Theory and practice of finite element methods, including elliptic boundary value problems, weak formulations, the Ritz-Galerkin method, conforming and non-conforming finite elements, error estimates, and numerical experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5573 Introduction to Mathematical Epidemiology
Prerequisites: MATH 2163, Calculus III, Math 2233, Differential Equations, and Math 3013, Linear Algebra, with grades of "C" or better; and basic experience coding in MATLAB, Python, R, or similar programming language, or consent of instructor.
Description: An introduction to the process of applying mathematical and computational techniques to understand the dynamics of infectious diseases. Classical epidemic models including the Kermack-McKendrick SIR model and its variations. The basic reproduction number as a measure of pathogen transmissibility. Mathematical aspects of epidemic models including steady states and stability analysis. Numerical solutions and simulations of infectious disease models. Includes independent projects, written reports, and oral presentations. May not be used for degree credit with MATH 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5580 Case Studies in Applied Mathematics
Prerequisites: MATH 2233, MATH 4013, and knowledge of computer programming.
Description: Selected mathematical problems from industry. Independent problem-solving, oral presentation of solutions, and technical report writing. Seminar-style format. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 5593 Methods of Applied Mathematics
Prerequisites: MATH 2233, MATH 4013, and knowledge of computer programming.
Description: Continuous and discrete techniques in modern applied mathematics. Positive definite matrices, eigenvalues and dynamical systems, discrete and continuous equilibrium equations, least squares estimation and the Kalman filter, potential flow, calculus of variations, network flows, and combinatorics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5613 Algebra I
Prerequisites: MATH 4613 or MATH 5003.
Description: A rigorous treatment of classical results in group theory, ring theory, and field theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5623 Algebra II
Prerequisites: MATH 5613.
Description: A rigorous treatment of classical results in module theory, multilinear algebra, and representation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5673 Combinatorics
Prerequisites: MATH 3013 with a grade of "C" or better.
Description: Introduction to graph theory and network theory, counting techniques, generating functions, recurrence relations, and difference equations. May not be used for degree credit with MATH 4663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5713 Number Theory
Prerequisites: MATH 3613 with a grade of "C" or better.
Description: Divisibility of integers, congruencies, quadratic residues, distribution of primes, continued fractions and the theory of ideals. May not be used for degree credit with MATH 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5753 Introduction to Cryptography
Prerequisites: MATH 3013 and (MATH 3613 or CS 3653) with grades of "C" or better.
Description: Classical and modern techniques for transmitting and managing information in the presence of eavesdroppers or adversaries and the mathematical principles on which they are based. Symmetric and asymmetric ciphers such as RSA and public key cryptography. Modular arithmetic, the factoring problem, and the discrete logarithm problem. May not be used for degree credit with MATH 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5803 Groups and Representations
Prerequisites: MATH 3013 and MATH 3613 with grades of "C" or better, or consent of instructor.
Description: An introduction to groups, group actions, symmetry groups, representations and characters. Further topics may include infinite symmetry groups, applications to chemistry and physics, finite isometry groups and geometry. May not be used for degree credit with MATH 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5903 Seminar and Practicum in the Teaching of College Mathematics
Prerequisites: Graduate standing in mathematics or consent of instructor.
Description: Foundations of college mathematics teaching, including lecturing, grading and exam preparation. Adapting classroom activities to better serve different types of learners. Current trends in mathematics education such as calculus reform, cooperative learning, and technology in the classroom. Previously offered as MATH 5902.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 5913 Introduction to Research in Mathematics Education
Prerequisites: MATH 3613 or MATH 4023 or equivalent.
Description: Examination and critique of research in mathematics education. A comparative study of research design, analysis, and reporting of both qualitative and quantitative research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6000 Doctoral Research and Dissertation
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in the PhD or EdD thesis. Offered for variable credit, 1-9 credit hours, maximum of 24 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6010 Advanced Seminar in Mathematics
Prerequisites: Consent of instructor and student's advisory committee.
Description: Directed reading on advanced topics in mathematics. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6090 Doctoral Research Project
Prerequisites: Consent of advisory committee.
Description: Directed reading and research culminating in preliminary doctoral research project. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6143 Functional Analysis I
Prerequisites: MATH 4613 or MATH 5003 or MATH 5023, MATH 5153, MATH 5303.
Description: Theory of topological vector spaces including metrizability, consequences of completeness, Banach spaces, weak topologies, and convexity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6213 Harmonic Analysis
Prerequisites: MATH 5153, MATH 5283.
Description: Classical results giving connections among the size of a harmonic or analytic function on a complex domain, the existence and smoothness of its boundary values, and behavior of the Fourier series; selected extensions, related topics and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6233 Advanced Partial Differential Equations
Prerequisites: MATH 5233 or consent of instructor.
Description: Schwarz class, tempered distributions, basic linear functional analysis, Holder spaces, Sobolev spaces, spaces involving time, Sobolev inequalities, existence and regularity theory of second-order elliptic, parabolic, and hyperbolic equations, semigroup theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6263 Potential Theory
Prerequisites: MATH 5153 and MATH 5283.
Description: Subharmonic and superharmonic functions, potentials, energy problems (including problems with external fields), equilibrium measures, capacities, Dirichlet problems, regularity, Green functions, harmonic measures, conformal mappings, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6283 Several Complex Variables
Prerequisites: MATH 5283.
Description: Elements of function theory of several complex variables, including extension phenomena, domains of holomorphy, notions of convexity, holomorphic maps, and complex analytic varieties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6290 Topics in Analysis
Prerequisites: Consent of instructor.
Description: Advanced topics in analysis. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6323 Algebraic Topology I
Prerequisites: MATH 5313.
Description: Chain complexes, homology and cohomology groups, the Eilenberg-Steenrod axioms, Mayer-Vietoris sequences, universal coefficient theorems, the Eilenberg-Zilber theorem and Kunneth formulas, cup and cap products, and duality in manifolds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6390 Topics in Topology
Prerequisites: Consent of instructor.
Description: Advanced topics in topology. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6433 Algebraic Geometry
Prerequisites: MATH 5623.
Description: Affine and projective varieties, dimension, algebraic curves, divisors and Riemann-Roch theorem for curves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6453 Complex Geometry
Prerequisites: MATH 5283.
Description: Complex manifolds, analytic sheaves, differential forms, Dolbeault cohomology, Hodge theory, line bundles, divisors, Kodaira embedding, and vanishing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6490 Topics in Geometry
Prerequisites: Consent of instructor.
Description: Advanced topics in geometry. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6513 Theoretical Numerical Analysis
Prerequisites: MATH 5153, MATH 5543 or CS 5543, and MATH 5553 or CS 5553.
Description: An advanced theoretical treatment based on function spaces and operator theory of algorithms for machine computing and analysis of errors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6590 Topics in Applied Mathematics
Prerequisites: Consent of instructor.
Description: Advanced topics in applied mathematics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6613 Commutative Algebra
Prerequisites: MATH 5623.
Description: Commutative rings, exactness properties of modules, tensor products, integral dependence, chain conditions, completions, filtrations, local rings, dimension theory, and flatness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6623 Homological Algebra
Prerequisites: MATH 5623.
Description: Closed and projective classes, resolution and derived functors, adjoint theorem, construction of projective classes in the categories of groups, rings and modules; categories, Abelian categories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6690 Topics in Algebra
Prerequisites: Consent of instructor.
Description: Advanced topics in algebra. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6713 Analytic Number Theory
Prerequisites: MATH 4283 or MATH 5283.
Description: Arithmetic functions, Zeta and L functions, distribution of primes and introduction to modular forms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6723 Algebraic Number Theory
Prerequisites: MATH 5013 or MATH 5623.
Description: Number fields, ideal theory, units, decomposition of primes, quadratic and cyclotomic fields, introduction to local fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6790 Topics in Number Theory
Prerequisites: Consent of instructor.
Description: Advanced topics in number theory. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6813 Lie Groups and Representations
Prerequisites: MATH 4153 or MATH 5053, MATH 4613 or MATH 5003, MATH 5303.
Description: Differentiable manifolds, vector fields, Lie groups, exponential map, homogeneous spaces, representations of compact Lie groups, and maximal tori.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6823 Lie Algebras
Prerequisites: MATH 5013 and MATH 5023.
Description: Matrix groups, Lie algebras, root systems, structure of semisimple Lie algebras, universal enveloping algebra, and representations of lie algebras.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6890 Topics in Representation Theory
Prerequisites: Consent of instructor.
Description: Advanced topics in representation theory. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

MATH 6923 Research in Undergraduate Mathematics Education
Prerequisites: MATH 5913.
Description: Continuation of MATH 5913 with an emphasis on design of research in undergraduate mathematics education. Development of research questions, review of the literature, data collection and analysis, development and evaluation of research proposals, reporting research results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mathematics

MATH 6990 Topics in Collegiate Mathematics Education
Prerequisites: Consent of instructor.
Description: Advanced topics in collegiate mathematics education. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Mathematics

Undergraduate Programs

- Mathematics, BA (p. 1543)
- Mathematics, BS (p. 1546)
- Mathematics: Actuarial Science and Financial Mathematics, BS (p. 1549)
- Mathematics: Applied Mathematics, BS (p. 1552)
- Mathematics: Data Science, BS (p. 1556)
- Mathematics: Pre-Law, BS (p. 1559)
- Mathematics: Pre-Medical Sciences, BS (p. 1562)
- Mathematics: Secondary Teacher Certification, BS (p. 1565)

Graduate Programs

The Department of Mathematics offers programs leading to the Master of Science and Doctor of Philosophy degrees.

Prerequisites

A student beginning graduate study in mathematics is expected to have had, as an undergraduate, at least 18 semester hours in mathematics beyond elementary integral calculus including courses in differential equations, linear algebra, modern algebra and modern analysis. An applicant whose preparation is deficient may be admitted to the program, if otherwise qualified, but will be required to correct the deficiency, increasing somewhat the time required to complete work for the degree. Prospective graduate students are advised to take at least introductory courses in related fields such as physics, statistics and computer science.

The Master of Science Degree

The department offers three tracks in the Master of Science degree, computational and applied mathematics, mathematics education and pure mathematics. Each degree requires 33 credit hours of graduate course work in mathematics or related subjects. Two of these hours are waived if a master's thesis is written. Each student must have a grade of "A" or "B" in 18 hours of core coursework.

The Doctor of Philosophy Degree

The department offers three tracks for the PhD degree: applied mathematics, mathematics education and pure mathematics. Admission to the PhD program is granted only to students with superior records in their previous graduate or undergraduate study. A minimum of 90 semester credit hours of graduate credit beyond the bachelor's degree or 60 hours of beyond the master's degree is required for the PhD degree. Each student has an individual doctoral committee that advises the student in the formulation of an approved plan of study for the degree. Each student must have a grade of "A" or "B" in 15 hours of core coursework, complete a preliminary research project, and pass a qualifying exam.

The most important requirement for the PhD degree is the preparation of an acceptable dissertation. This dissertation must demonstrate the candidate's ability to do independent, original work in mathematics, or mathematics education.

Minors

- Actuarial Science (ACSC), Minor (p. 1541)
- Mathematics (MATH), Minor (p. 1542)

Faculty

Jay Schweig, PhD—Head and Associate Professor
Regents Professor: Jiahong Wu, PhD (AT&T Professor)
Professors: Leticia Barchini, PhD; Christopher Francisco, PhD (Vice Provost); Amit Ghosh, PhD; Anthony Kable, PhD; JaEun Ku, PhD; Jiří Lebl, PhD; Lisa A. Mantini, PhD; J. Robert Myers, PhD; Alan Noell, PhD; Michael Oehrtman, PhD (Noble Professor); Igor Pritsker, PhD (Vaughn Professor); Edward Richmond, PhD; Henry Segerman, PhD; Eduardo Teixeira, PhD (Kerr Chair)
Associate Professors: Mahdi Asgari, PhD; John Paul Cook, PhD; John Doyle, PhD; Paul Fili, PhD (Associate Head); Ning Ju, PhD; Jeffrey Mermin, PhD; Anand Patel, PhD; Michael Tallman, PhD; Xu Zhang, PhD
Assistant Professors: Sean Curry, PhD; Melissa Emory, PhD; Maria Fox, PhD; Cuiyu He, PhD; Dami Lee, PhD; Yanwen Luo, PhD; Lucas Martins Stolerman, PhD; Jayan Mukherjee, PhD; Xukai Yan, PhD
Teaching Associate Professors: Lee Ann Brown, MS; Allison Dorko, PhD; Cynthia Francisco, MS; Melissa Mills, PhD
Teaching Assistant Professors: Detelin Dosev, PhD; Katiuscia Teixeira, PhD; Donna Rae Tree, MS
Postdoctoral Fellows: Haridas Das, PhD; Alex He, PhD; Nathan Lesnevich, PhD; Ritika Nair, PhD; Ahmed Zytoon, PhD
Professors Emeriti: Alan Adolphson, PhD; Douglas B. Aichele, EdD; Dale E. Alspach, PhD; Dennis Bertholf, PhD; Birne Binegar, PhD; James R. Choike, PhD; Bruce C. Crauder, PhD; Benny Evans, PhD; William Jaco, PhD; Marvin S. Keener, PhD; Weiping Li, PhD; John Wolfe, PhD; David J. Wright, PhD; Roger Zierau, PhD

Actuarial Science (ACSC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade-Point Average: 2.50 with no grade below "C."
Total Hours: 28

Code	Title	Hours
Required Courses		
ACCT 2003	Survey of Accounting [1]	3
ECON 2103	Introduction to Microeconomics (S) [1]	3
FIN 3113	Principles of Finance [1, 2]	3
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 4453	Mathematical Interest Theory [2]	3
STAT 4203	Mathematical Statistics I [2]	3
or STAT 4123	Probability Theory	
Total Hours		**28**

1

Courses intended to meet the Society of Actuaries VEE (Validation by Educational Experience) requirements should be completed with a grade of "B" or better.

2

All upper-division courses must be completed at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Mathematics (MATH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Britney Mann, 401 MSCS, 405-744-5688

Minimum Grade Point Average in Minor Coursework: 2.00 with no grade below "C."
Total Hours: 22

Code	Title	Hours
Minor Requirements		
MATH 2144	Calculus I (A)	4
MATH 2153	Calculus II (A)	3
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (A)	3
Select 9 hours of MATH for which Calculus II (MATH 2153) is a prerequisite. [1]		9
Total Hours		**22**

1

6 hours must be upper-division; 3 hours must be at the 4000-level. MATH 3303 Advanced Perspectives on Secondary Mathematics is not permitted.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Mathematics, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
CS 1103	Computer Programming (Q) [1]	3
or CS 1113	Computer Science I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum grade of "C" or "P" required in each course		
Major Foundation (18 hours)		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
Select 3 hours of the following:		3
STAT 4013	Statistical Methods I (Q)	
STAT 4033	Engineering Statistics	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Select 3 hours of the following:		3
MATH 3583	Introduction to Mathematical Modeling	
MATH 3933	Introduction to Mathematical Research	
MATH 4423	Geometry and Algorithms in Three-Dimensional Modeling	
Tracks (24 hours)		
Select one track (p. 1543)		24
Hours Subtotal		**42**
Electives		
Select 16 hours		16
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper division hours		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**16**
Total Hours		**120**

1

College and Departmental requirements that may be used to meet General Education requirements.

Tracks

General Track

Code	Title	Hours
Select 6 hours from the following courses with MATH 3613 as a prerequisite:		6
MATH 4023	Introduction to Analysis	
MATH 4083	Intermediate Analysis	

MATH 4143	Advanced Calculus I
MATH 4153	Advanced Calculus II
MATH 4343	Introduction to Topology
MATH 4403	Geometry
MATH 4613	Abstract Algebra I
MATH 4623	Abstract Algebra II
MATH 4713	Number Theory
MATH 4813	Groups and Representations

Select 9 hours from MATH courses numbered 4000 or above or STAT 4203, excluding 0-ending and Thesis courses	9
Select 3 hours from 4000-level courses in MATH or STAT or upper-division courses in CS or PHYS	3
Select 6 hours from upper-division courses in any field	6

Advanced Studies Track

Code	Title	Hours
MATH 4023	Introduction to Analysis	3
MATH 4143	Advanced Calculus I [2]	3
or MATH 4083	Intermediate Analysis	
MATH 4613	Abstract Algebra I [2]	3
or MATH 4813	Groups and Representations	
Select 6 hours from the following, with one course from each of two different groups:		6
Calculus or Complex Analysis		
MATH 4283	Functions of a Complex Variable [2]	
or MATH 4013	Calculus of Several Variables	
Geometry or Topology		
MATH 4343	Introduction to Topology [2]	
or MATH 4443	Differential Geometry of Curves and Surfaces	
Applied Math		
MATH 4513	Introduction to Numerical Analysis	
or MATH 4263	Introduction to Partial Differential Equations	
Combinatorics or Number Theory		
MATH 4663	Combinatorics	
or MATH 4713	Number Theory	
Probability		
STAT 4203	Mathematical Statistics I	
or STAT 4123	Probability Theory	
Select 3 hours from 4000-level courses in MATH, excluding 0-ending or Thesis courses		3
Select 6 hours from 4000-level courses in MATH or STAT		6

2

Courses recommended as preparation for doctoral study include MATH 4143, 4153, 4283, 4343, 4613, and 4623.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study
Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
General Education courses		7
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		9
	Hours	**16**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
College and Elective courses		3
	Hours	**13**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
1713 First Semester Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Mathematics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
Select three additional hours		3
See note 2.b.		
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
A minimum grade of "C" or "P" required in each course. Minimum 2.0 GPA in all MATH courses.		
Major Foundation (18 hours)		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
Select one of the following:		3
MATH 3583	Introduction to Mathematical Modeling	
MATH 3933	Introduction to Mathematical Research	
MATH 4423	Geometry and Algorithms in Three-Dimensional Modeling	
Select one of the following:		3
STAT 4013	Statistical Methods I (Q)	
STAT 4033	Engineering Statistics	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Tracks (24 hours)		
Select one track (p. 1547)		24
Hours Subtotal		**42**
Electives		
Select 25 hours [2]		25
May need to include 6 hours of a foreign language. (see note 3.)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper division hours		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**25**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education requirements.

2

With departmental approval, up to 30 hours from an accredited doctoral law or health program may be substituted for these areas.

Tracks

General Track

Code	Title	Hours
MATH 4023	Introduction to Analysis	3
Select 12 hours of 4000-level courses in MATH or STAT 4123 or STAT 4203, excluding 0-ending or Thesis courses.		12
Select 3 hours of 4000-level courses in MATH or STAT or upper-division CS or PHYS or CHEM 3433, or ENSC 3233		3
Select 6 hours of upper division courses in any field [2]		6

2

With departmental approval, up to 30 hours from an accredited doctoral law or health program may be substituted for these areas.

Advanced Studies Track

Code	Title	Hours
MATH 4023	Introduction to Analysis	3
MATH 4143	Advanced Calculus I [3]	3
or MATH 4083	Intermediate Analysis	
MATH 4613	Abstract Algebra I [3]	3
or MATH 4813	Groups and Representations	
Select 6 hours from the following with one course from each of two different groups:		6
Calculus or Complex Analysis		
MATH 4283	Functions of a Complex Variable [3]	
or MATH 4013	Calculus of Several Variables	
Geometry or Topology		
MATH 4343	Introduction to Topology [3]	
or MATH 4443	Differential Geometry of Curves and Surfaces	
Applied Math		
MATH 4513	Introduction to Numerical Analysis	
or MATH 4263	Introduction to Partial Differential Equations	
Combinatorics or Number Theory		
MATH 4663	Combinatorics	
or MATH 4713	Number Theory	
Probability		
STAT 4203	Mathematical Statistics I	
or STAT 4123	Probability Theory	
Select 3 hours from 4000-level MATH excluding 0-ending and Thesis courses		3
Select 6 hours from 4000-level courses in MATH or STAT		6

3

Courses recommended as preparation for doctoral study include MATH 4143, 4153, 4283, 4343, 4613, and 4623.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
General Education courses		7
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		9
	Hours	**16**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
College and Elective courses		3
	Hours	**13**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Mathematics: Actuarial Science and Financial Mathematics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
CS 1103	Computer Programming (Q) [1]	3
or CS 1113	Computer Science I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
ECON 2103	Introduction to Microeconomics (S) [1,2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course in Major Requirements.		
Mathematics Core (30 hours)		
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
MATH 3583	Introduction to Mathematical Modeling	3
MATH 4453	Mathematical Interest Theory	3
STAT 4013	Statistical Methods I (Q)	3
or STAT 4053	Statistical Methods I for the Social Sciences (Q)	
STAT 4203	Mathematical Statistics I	3
or STAT 4123	Probability Theory	
Select 9 hours of the following:		9
MATH 4013	Calculus of Several Variables	
MATH 4023	Introduction to Analysis	
MATH 4083	Intermediate Analysis	
MATH 4233	Intermediate Differential Equations	
MATH 4263	Introduction to Partial Differential Equations	
MATH 4513	Introduction to Numerical Analysis	
MATH 4553	Introduction to Optimization	
MATH 4573	Introduction to Mathematical Epidemiology	
MATH 4663	Combinatorics	
MATH 4753	Introduction to Cryptography	
MATH 5473	Financial Calculus	
STAT 4213	Mathematical Statistics II [2]	
Select 3 hours of the following:		3
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
STAT 4043	Applied Regression Analysis	
Professional Requirements (21 hours)		
ACCT 2003	Survey of Accounting [2]	3
ECON 2203	Introduction to Macroeconomics [2]	3
FIN 3113	Principles of Finance [2]	3
Select 3 hours of the following:		3
FIN 4223	Investments	
FIN 4333	Financial Modeling	
FIN 4763	Financial Futures and Options Markets	

FIN 4843	Risk Management	
FIN 3613	General Insurance	
Select 3 hours of the following:		3
CS 1113	Computer Science I (Q)	
ENGR 1412	Introductory Engineering Computer Programming	
MSIS 3333	Database Systems Development	
MSIS 4673	Data Visualization	
STAT 4091	Sas Programming	
STAT 4191	R Programming	
STAT 4193	SAS and R Programming	
Select 6 hours of the following:		6
4000-level courses in MATH or STAT		
STAT 5053	Time Series Analysis	
Upper-division courses in AGEC, ECON, or FIN		
Hours Subtotal		**51**
Electives		
Select 16 hours		16
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Recommended:		
BCOM 3113	Written Communication	
or BCOM 3223	Oral Communication	
or SPCH 3723	Business and Professional Communication	
MKTG 3213	Marketing (S) [3]	
MGMT 3013	Fundamentals of Management (S) [3]	
Hours Subtotal		**16**
Total Hours		**120**

[1]

College and Departmental Requirements that may be used to meet General Education requirements.

[2]

Minimum grade of B required for the Society of Actuaries' Validation by Educational Experience (VEE) certification.

[3]

These courses should be selected when including pre-MBA preparation.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum grade of "C" or "P" in all MATH courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
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   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
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of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
General Education courses		6
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
STAT 4013	Statistical Methods I (Q)	3
ACCT 2003	Survey of Accounting	3
General Education courses		3
	Hours	**16**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
ECON 2103	Introduction to Microeconomics (S)	3
College and Elective courses		3
	Hours	**16**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
STAT 4203	Mathematical Statistics I	3
ECON 2203	Introduction to Macroeconomics	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
MATH 4453	Mathematical Interest Theory	3
FIN 3113	Principles of Finance	3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		14
	Hours	**14**
	Total Hours	**120**

Mathematics: Applied Mathematics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1113	Computer Science I (Q)	3
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course in Major Requirements.		
Mathematics Core (33 hours)		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
Select 3 hours from the following:		3
STAT 4013	Statistical Methods I (Q)	
STAT 4033	Engineering Statistics	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	
MATH 3583	Introduction to Mathematical Modeling	3
MATH 4513	Introduction to Numerical Analysis	3
or MATH 4553	Introduction to Optimization	
MATH 4233	Intermediate Differential Equations	3
or MATH 4263	Introduction to Partial Differential Equations	
Select 9 hours from 4000-level MATH or STAT 4203 or CS 3653, excluding 0-ending or Thesis courses. At most 3 hours may be outside MATH.		9
Select 3 hours from 4000-level MATH or STAT or upper-division CS or PHYS or CHEM 3433 or ENSC 3233		3
Applications of Mathematics (18 hours)		
ECON 2103	Introduction to Microeconomics (S)	3
or ECON 2003	Microeconomic Principles for Business	
Select 3 hours from the following:		3
CS 1103	Computer Programming (Q)	
CS 2133	Computer Science II	
CS 2433	C/C++ Programming	
ENGR 1412	Introductory Engineering Computer Programming	
STAT 4091	Sas Programming	
STAT 4191	R Programming	
STAT 4193	SAS and R Programming	
Select 9 hours from one Area of Application (p. 1553) [2]		9
Select 3 hours from the following:		3
4000-level MATH or STAT		
Upper-division CS or PHYS		
Upper-division course from the Area of Application		
Hours Subtotal		**51**

Electives	
Select 16 hours	16
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**16**
Total Hours	**120**

1

College and Departmental Requirements that may be used to meet General Education requirements.

2

An alternative 9-hour plan with at least 6 upper-division hours may be used with Departmental approval.

3

If Bioinformatics is selected, additional required courses BIOL 1114, CHEM 1314, and MICR 2132 may be used to meet Additional General Education, Natural and Mathematical Sciences, or Elective requirements.

Area of Application

Agricultural Economics

Code	Title	Hours
AGEC 3213	Quantitative Methods in Agricultural Economics	3
AGEC 3333	Agricultural Marketing and Price Analysis	3
AGEC 4213	Advanced Quantitative Methods in Agricultural Economics	3
or AGEC 4333	Commodity Futures Markets	

Bioinformatics

Code	Title	Hours
MICR 2123	Introduction to Microbiology [3]	3
MICR 3033	Cell and Molecular Biology	3
MICR 4203	Bioinformatics	3

Cognitive Sciences

Code	Title	Hours
CS 4793	Artificial Intelligence I	3
Select one of the following:		3
PHIL 4003	Mathematical Logic and Computability	
PHIL 4313	Philosophy of Mind (H)	
PHIL 4543	Philosophy of Language	
PSYC 3173	Introduction to Cognitive Science (N)	3

Economics

Code	Title	Hours
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
or ECON 3123	Intermediate Macroeconomics	
Select 3 hours of upper division ECON		3

Energy Finance

Code	Title	Hours
ACCT 2003	Survey of Accounting	3
FIN 3113	Principles of Finance	3
Select 3 hours from the following:		3
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
FIN 4003	Introduction to Energy Business	
FIN 4363	Energy Finance	

Finance

Code	Title	Hours
ACCT 2003	Survey of Accounting	3
FIN 3113	Principles of Finance	3
Select 3 hours of the following:		3
FIN 4223	Investments	
FIN 4333	Financial Modeling	
FIN 4763	Financial Futures and Options Markets	
FIN 4843	Risk Management	

Geographic Information Science

Code	Title	Hours
GEOG 4203	Fundamentals of Geographic Information Systems	3
GEOG 4343	Geographic Information Systems: Resource Management Applications	3
or GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
Select 3 hours of the following:		3
GEOG 3333	Spatial Analysis (Q)	
GEOG 4333	Remote Sensing	
GEOG 4383	Geospatial Programming with Python and AI Tools	

Geophysical Analysis

Code	Title	Hours
ENSC 2113	Statics	3
ENSC 3233	Fluid Mechanics	3
GEOL 4103	Introduction to Geophysical Exploration	3

Operations Research

Code	Title	Hours
IEM 3103	Probability and Statistics for Engineers I	3
IEM 3703	Probability and Statistics for Engineers II	3
IEM 4013	Operations Research	3

Physics

Code	Title	Hours
PHYS 2203	University Physics III	3
Select 6 hours of upper-division PHYS		6

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum grade of “C” or “P” in all required MATH courses.

- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
General Education courses		7
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4

General Education courses		8
	Hours	**15**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
College and Elective courses		5
	Hours	**15**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
Major, College, and Elective courses		12
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Mathematics: Data Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
CS 1113	Computer Science I (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 2133	Computer Science II	3
MATH 2153	Calculus II (Q)	3
STAT 4013	Statistical Methods I (Q)	3
or STAT 4053	Statistical Methods I for the Social Sciences (Q)	
See note 2.b.		
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA of 2.50 and minimum grade of “C” or “P” required in each course in Major Requirements.		
Major core (33 hours)		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
MATH 3583	Introduction to Mathematical Modeling	3
MATH 4533	Matrix Methods in Machine Learning	3
MATH 4663	Combinatorics	3
STAT 4043	Applied Regression Analysis	3
STAT 4203	Mathematical Statistics I	3
6 hours from 4000-level MATH excluding 0-ending or thesis courses.		6
Data Science Requirements (18 hours)		
CS 3353	Data Structures and Algorithm Analysis I	3
CS 4433	Introduction to Database Systems	3
Select 3 hours from the following:		3
CS 3443	Computer Systems	
CS 4523	Cloud Computing and Distributed Systems	
CS 4783	Machine Learning	
CS 4883	Social Issues in Computing	
Select 9 hours from the following, with at least 3 hours upper-division:		9
CS 1103	Computer Programming (Q)	
CS 2351	Unix Programming	
CS 2433	C/C++ Programming	
Upper-division courses in CS		
ENGR 1412	Introductory Engineering Computer Programming	
4000-level courses in MATH		
MSIS 2103	Business Data Science Technologies	
MSIS 3223	Principles of Data Analytics	
MSIS 3293	Business Analytics Programming	
MSIS 3333	Database Systems Development	
MSIS 4333	Data Wrangling	
MSIS 4673	Data Visualization	
STAT 4023	Statistical Methods II	
STAT 4091	Sas Programming	

STAT 4191	R Programming	
STAT 4193	SAS and R Programming	
STAT 4213	Mathematical Statistics II	
STAT 4463	Statistical Machine Learning with R	
Hours Subtotal		**51**
Electives		
Select 16 hours		16
May need to include 6 hours of a foreign language. (see note 3.)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**16**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113	Composition I	3
MATH 2144	Calculus I (Q)	4
CS 1113	Computer Science I (Q)	3
General Education		4
	Hours	**15**
Spring		
ENGL 1213	Composition II	3
MATH 2153	Calculus II (Q)	3
CS 2133	Computer Science II	3
General Education or Electives		6
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education, College, Major, or Electives		5
	Hours	**15**
Spring		
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
MATH 3013	Linear Algebra (Q)	3
MATH 2233	Differential Equations	3
General Education, College, Major, or Electives		5
	Hours	**15**
Junior		
Fall		
MATH 3583	Introduction to Mathematical Modeling	3
MATH 3613	Introduction to Abstract Algebra	3
STAT 4203	Mathematical Statistics I	3
General Education, College, Major, or Electives		6
	Hours	**15**
Spring		
MATH 4663	Combinatorics	3
General Education, College, Major, or Electives		12
	Hours	**15**
Senior		
Fall		
CS 3353	Data Structures and Algorithm Analysis I	3
General Education, College, Major, or Electives		12
	Hours	**15**
Spring		
CS 4433	Introduction to Database Systems	3
General Education, College, Major, or Electives		12
	Hours	**15**
	Total Hours	**120**

Mathematics: Pre-Law, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
CS 1103	Computer Programming (Q) [1]	3
or CS 1113	Computer Science I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (Q)	3
or STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
A minimum grade of "C" or "P" is required in each course.		
Mathematics Core (30 hours)		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
Select 3 hours of the following:		3
MATH 3583	Introduction to Mathematical Modeling	
MATH 3933	Introduction to Mathematical Research	
MATH 4423	Geometry and Algorithms in Three-Dimensional Modeling	
MATH 4023	Introduction to Analysis	3
MATH 4663	Combinatorics	3
Select 9 hours from 4000-level courses in MATH or STAT 4203, excluding 0-ending and Thesis courses.		9
Select 3 hours of the following:		3
4000-level MATH or STAT		
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
Upper-division CS or PHYS		
Pre-Law Preparation (21 hours) [2]		
ACCT 2003	Survey of Accounting	3
ECON 2103	Introduction to Microeconomics (S)	3
ENGL 3323	Technical Writing	3
SPCH 3733	Elements of Persuasion (S)	3
Select 9 hours, including 6 upper-division hours, of the following:		9
AGEC 3713	Agricultural Law	
ECON 2203	Introduction to Macroeconomics	
ECON 3113	Intermediate Microeconomics	
ECON 3123	Intermediate Macroeconomics	
ECON 3213	Game Theory and Experimental Economics	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ECON 3823	American Economy: The Past and Present (S)	
ENGR 4113	Intellectual Property Law for Technical Professionals (S)	
FIN 3113	Principles of Finance	
HIST 4513	Economic History of the US (S)	
HONR 2013	Honors Law and Legal Institutions (S)	

LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3013	Fundamentals of Management (S) [3]	
MKTG 3213	Marketing (S) [3]	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 2023	The Individual And The Law	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
PSYC 4143	Psychology and Law	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	
SOC 4313	Sociology of Law	
Hours Subtotal		**51**
Electives		
Select 16 hours [2]		16
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Recommended courses:		
PSYC 1113	Introductory Psychology (S)	
SOC 1113	Introductory Sociology (S)	
SPCH 2713	Introduction to Speech Communication (S)	
See http://preprofessional.okstate.edu for additional information.		
Hours Subtotal		**16**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With departmental approval, up to 30 hours from an accredited doctoral law program may be substituted for these areas.

3

These courses should be selected when including pre-MBA preparation.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all required MATH courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer

of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
General Education courses		7
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education courses		8
	Hours	**15**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
College and Elective courses		5
	Hours	**15**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
ENGL 3323	Technical Writing	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
MATH 4663	Combinatorics	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Mathematics: Pre-Medical Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		*3*
See note 2.a.		
Recommend HIST 3913 or PHIL 3833		
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
Foreign Language		
See note 3		0
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department.		
See note 2.c.		
Hours Subtotal		**15**
Major Requirements		
A minimum grade of "C" or "P" is required in each course.		
Mathematics Core (39 hours)		
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
Select 3 hours from the following:		3
MATH 3583	Introduction to Mathematical Modeling	
MATH 3933	Introduction to Mathematical Research	
MATH 4423	Geometry and Algorithms in Three-Dimensional Modeling	
Select 3 hours from the following:		3
MATH 4023	Introduction to Analysis	
MATH 4263	Introduction to Partial Differential Equations	
MATH 4513	Introduction to Numerical Analysis	
Select 9 hours from 4000-level MATH excluding 0-ending or Thesis courses		9
Select 3 hours from 4000-level MATH or STAT excluding 0-ending or Thesis courses		3
Select 3 hours from the following:		3
STAT 4013	Statistical Methods I (Q)	
STAT 4033	Engineering Statistics	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Select 3 hours from the following:		3
4000-level MATH or STAT [2]		
Upper-Division CS or PHYS		
CHEM 3433	Physical Chemistry I	
MICR 4203	Bioinformatics	
Pre-Medical Sciences (18 hours)		
Biology		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Physiology or Organic Chemistry		
Select 8 hours from the following:		8

BIOL 3204 & BIOL 3214	Physiology and Human Anatomy	
CHEM 3053 & CHEM 3153 & CHEM 3112	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Laboratory	
Additional science courses		
Select 6 hours from the following, with 3 hours upper-division:		6
BIOC 3653	Survey of Biochemistry	
BIOL 3023	General Genetics	
BIOL 1604	Animal Biology	
BIOL 3233	Human Reproduction	
MICR 2123	Introduction to Microbiology	
MICR 2132	Introduction to Microbiology Laboratory	
MICR 3033	Cell and Molecular Biology	
MICR 3223	Advanced Microbiology	
MICR 3253	Immunology	
NSCI 2013	Principles of Human Nutrition (N)	
PSYC 2583	Developmental Psychology (S)	
PSYC 3443	Psychopathology (S)	
Hours Subtotal		**57**
Electives		
Select 8 hours		8
May need to include 6 hours of a foreign language. (see note 3.)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Strongly recommended:		
PSYC 1113	Introductory Psychology (S)	
SOC 1113	Introductory Sociology (S)	
Additional requirements for professional school admission exist. View the Admission Requirement Sheets at http://preprofessional.okstate.edu		
Hours Subtotal		**8**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

STAT 4023 Statistical Methods II, STAT 4043 Applied Regression Analysis or STAT 4063 Statistical Methods II for the Social Sciences recommended.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all required MATH courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council

on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 2144	Calculus I (Q)	4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
General Education courses		3
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2153	Calculus II (Q)	3
BIOL 1604	Animal Biology	4
General Education courses		5
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		4
	Hours	**15**
Spring		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
CHEM 1515	Chemistry II (LN)	5
	Hours	**15**
Junior		
Fall		
MATH 3613	Introduction to Abstract Algebra	3
MATH 3583	Introduction to Mathematical Modeling (option)	3
BIOL 3204 or CHEM 3053	Physiology or Organic Chemistry I	4
Major, College, and Elective courses		5
	Hours	**15**
Spring		
MATH 4023	Introduction to Analysis	3
BIOL 3214 or CHEM 3153	Human Anatomy or Organic Chemistry II	4
CHEM 3112	Organic Chemistry Laboratory (if CHEM 3153)	2
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
BIOC 3653	Survey of Biochemistry (optional)	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Mathematics: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1,2]	4
CS 1103	Computer Programming (Q) [1,2]	3
or CS 1113	Computer Science I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 2014	University Physics I (LN) [1]	4
or PHYS 1114	College Physics I (LN)	
PHYS 2114	University Physics II (LN) [1]	4
or PHYS 1214	College Physics II (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q) [2]	3
MATH 2163	Calculus III [2]	3
STAT 4013	Statistical Methods I (Q) [2]	3
or STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Mathematics Core (30 hours)		
Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Mathematics core and those denoted with [2,]		
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3613	Introduction to Abstract Algebra	3
MATH 3303	Advanced Perspectives on Secondary Mathematics	3
MATH 3933	Introduction to Mathematical Research	3
MATH 4023	Introduction to Analysis	3
MATH 4403	Geometry	3
MATH 4663	Combinatorics	3
Select 3 hours of 4000-level MATH or STAT 4203 or CS 3653, excluding 0-ending or Thesis courses. MATH 4033 recommended.		3
Select 3 hours of 4000-level MATH or STAT or upper division CS or PHYS		3
Secondary Education Professional Core (28 hours)		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course.		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4003	Teaching Fundamental Concepts of Mathematics [3]	3
SMED 4023	Advanced Field Placement in Mathematics and Science [3]	3
SMED 4053	Teaching Geometry in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom [3]	6
Hours Subtotal		**58**

Electives	
Select 9 hours	9
May need to include 6 hours of a foreign language (see note 3)	
May need to include 3 upper-division hours from General Education or any College of Arts and Sciences course outside major department (see note 2.c.)	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**9**
Total Hours	**120**

[1]

College and Departmental Requirements that may be used to meet General Education Requirements.

[2]

Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Mathematics core and those denoted with '2'.

[3]

Full admission to Professional Education is required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113	Composition I	3
MATH 2144	Calculus I (Q)	4
SMED 1012	Inquiry Approaches to Teaching	2
General Education/Elective		6
	Hours	**16**
Spring		
ENGL 1213	Composition II	3
MATH 2153	Calculus II (Q)	3
General Education/Elective		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education/College/Department/Concentration		6
	Hours	**16**
Spring		
MATH 2233	Differential Equations	3
MATH 3613	Introduction to Abstract Algebra	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
General Education/College/Department/Concentration		3
	Hours	**16**
Junior		
Fall		
MATH 3303	Advanced Perspectives on Secondary Mathematics	3
MATH 4033	History of Mathematics (Recommended)	3
CIED 3313	Field Experience in the Secondary Schools	3
General Education/College/Departmental/Major		9
	Hours	**18**
Spring		
MATH 3933	Introduction to Mathematical Research	3
MATH 4663	Combinatorics	3
SMED 4003	Teaching Fundamental Concepts of Mathematics	3
General Education/College/Departmental/Major		6
	Hours	**15**
Senior		
Fall		
MATH 4403	Geometry	3
MATH 4023	Introduction to Analysis	3
SMED 4053	Teaching Geometry in the Secondary School	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
General Education/College/Departmental/Major		3
	Hours	**15**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

School of Media and Strategic Communications

At Oklahoma State University, the professional areas of mass communication are grouped in the School of Media and Strategic Communications (SMSC). These areas seek to complement each other with a minimum of duplication. Degrees offered include a Bachelor of Arts or a Bachelor of Science in the following:

- Multimedia Journalism
- Sports Media
- Strategic Communication

A modern democratic society cannot live by its ideals if its mass media practitioners are merely competent technicians who worry less about what is reported to the people than how it is reported. Citizens must have accurate information about social, political and economic problems as well as knowledge of actions taken by government agencies and organizations at all levels. From village council to Supreme Court, there can be no exception from the rule that public business is the public's business.

To speak to people through different media, whether as a journalist or a strategic communication practitioner, requires knowledge of the people to whom or on whose behalf one wishes to speak and an understanding of the world in which they live. Therefore, the curricula of the School of Media and Strategic Communications are designed to offer more than training in communication techniques. Three-quarters of the SMSC student's time at the University is devoted to a liberal education in the arts and sciences. At the same time, the student gains competence in a professional field through courses in the School of Media and Strategic Communications.

On graduation, undergraduate students in the School of Media and Strategic Communications will be able to:

1. Demonstrate an understanding of the relevant constitutional freedoms, legal issues and ethical principles in mass communications,
2. Demonstrate an understanding of the relevance of human diversity in mass communications,
3. Demonstrate an understanding of the history and social role of mass communications,
4. Demonstrate critical, creative and individual thinking,
5. Demonstrate an understanding of the relevant theories and concepts of mass communications,
6. Demonstrate an understanding of the methods and techniques of research and information gathering,
7. Demonstrate appropriate writing, editing and production techniques in mass communications, and
8. Demonstrate an understanding of relevant planning and management methods in mass communications.

Accreditation

The undergraduate programs of study in the School of Media and Strategic Communications are accredited by the Accrediting Council on Education in Journalism and Mass Communication.

Admission to the Undergraduate Program

Undergraduate Proficiency Review

Successfully passing the proficiency review is required to enroll in upper-division major requirements. The Proficiency Review includes:

1. 2.75 graduation retention GPA;
2. At least 12 OSU earned hours and a 2.75 graduation retention GPA in those hours;
3. Grade of “C” or better for MC 2003 and MC 2023; and
4. Passing score on the Language Proficiency Exam. Students are permitted two attempts to pass the Language Proficiency Exam. Students who fail to pass the Language Proficiency Exam after two attempts will be suspended from the SMSC major and not eligible for readmission.

Requirements for Graduation

The degree programs of study offered in the School of Media and Strategic Communications are built around strong writing, liberal arts and professional components. Of the 120 hours required to earn a degree in SMSC, students will complete 54 semester hours or more in media and strategic communications courses.

Students must have a minimum 2.5 GPA in all SMSC courses and major requirements with a minimum grade of "C" in each course. No more than 12 hours in SMSC courses may be transferred from other institutions.

All SMSC majors are required to develop and maintain a portfolio exhibiting their best and most appropriate work as well as assignments required for the portfolio. Portfolios will be turned in during senior capstone courses as part of their graduation requirements. School faculty, staff and industry professionals will evaluate these portfolios periodically and offer guidance and constructive criticism. It is anticipated that the portfolios will be helpful in showcasing students' performance when they apply for internships or jobs.

Multimedia Journalism

The many changes in the media environment require that students should have expertise in journalism and storytelling in all media formats. The degree in multimedia journalism will allow graduates to work with any media platform, be it print, television, radio or the internet. While students will develop their skills across all media platforms they will be able to specialize in one of two areas: multimedia journalism, news or multimedia journalism, production.

Students learn the basics of journalism writing and reporting for print, online, audio and video production on state-of-the-art equipment and are challenged to put their skills to use by participating in the daily operations of Student Media at OSU available through the O'Colly Media Group. The O'Colly Media Group offers TV, radio, print, creative and sales opportunities through: Advertising, The O'Colly radio (podcasts and KXZY), O'Colly TV, The Daily O, Petes' Corner, the Poke Report and other student-driven shows. O'Colly TV hosts a daily newscast. Many students bring their own ideas for shows and receive help making them happen. Students also create content for Inside OSU, the OSU online TV station. Students gain on-the-job multimedia experience through internships and some hold part-time jobs as campus correspondents for various publications or work for media in the Stillwater area.

Internships at broadcast and cable outlets in the region also provide students with on-the-job experience and a valuable opportunity to work

with seasoned media professionals. Many juniors and seniors find this work a source of revenue to assist them in the cost of their education.

The multimedia program is affiliated with the Oklahoma Press Association, Southwest Journalism Congress, the Society of Professional Journalists, the National Association of Black Journalists, National Association of Hispanic Journalists, the National Association of FM Broadcasters, Radio Advertising Bureau, Oklahoma Association of Broadcasters, Oklahoma Broadcast Education Association, National Association of Broadcasters, Broadcast Education Association and National Public Radio.

Sports Media

This program, one of very few undergraduate degrees in sports media in the United States, offers students the option of concentrating in sports digital production or sports journalism.

Students pursuing an undergraduate degree in sports media from OSU receive classic hands-on training in all aspects of the industry. Depending on the area of concentration, coursework may include sports writing, play-by-play announcing, field production, and media relations. Sports media students are also challenged to put their skills to use by participating in the daily operations of Student Media at OSU available through the O'Colly Media Group. The O'Colly Media Group offers TV, radio, print, creative and sales opportunities through: Advertising, The O'Colly radio (podcasts and KXZY), O'Colly TV, The Daily O, Petes' Corner, the Poke Report and other student-driven shows. Many students bring their own ideas for shows and receive help making them happen. Students also create content for Inside OSU, the OSU online TV station. Students gain on-the-job multimedia experience through internships and some hold part-time jobs as campus correspondents for various publications or work for media in the Stillwater area. Students have many nationally-recognized organizations to join including the Sports Media Club, Association for Women in Sports Media and Associated Press Sports Editors.

Oklahoma State University and the School of Media and Strategic Communications enjoy a special relationship with sports media throughout the country. As a major sports venue, the OSU campus is visited regularly by national and regional sports media - both print and broadcast - to cover major sporting events. These media organizations routinely utilize SMSC student workers. The 2004 debut of ESPNU was telecast from Stillwater because the campus represents classic collegiate sports, and because the network producers were able to rely on a supply of ready and trained media and strategic communications students.

The sports media faculty has strong professional backgrounds in the field and offers students the solid foundation in both theory and practice that prepare them for a variety of career paths.

Strategic Communication

Communication professionals are needed in all industries. Industry employers require communication professionals to be skilled in writing, content creation, research, strategic planning and critical thinking.

Students in strategic communications learn and practice communication methods used in public relations, advertising, sport communication, social media, and global communication. Strategic communication courses focus on a thorough understanding of the social, political and economic systems of society and develop writing and content-creation skills that apply across all media platforms, such as print, television, radio, websites, social media, etc.

A degree in strategic communication prepares students to be professional communicators in any environment, such as advertising and public relations agencies, counseling firms, corporate communications, nonprofit organizations, social media management, global communication, or even their own businesses. The ultimate objective of this degree is to prepare students to be the strategic communicators and leaders in their field. Coursework prepares students to write and communicate effectively because good writing skills remain the foundation of professional communication. Coursework also focuses on strategic and critical thinking. This degree also grounds students in a thorough knowledge of gathering and analyzing data relevant to their practice and in communication management principles. Students complete their degree with a capstone campaign course, where students integrate and apply knowledge gained in their undergraduate work to a strategic communication campaign for a real-world client.

There are three options to choose from for the Strategic Communications degree: SC: Advertising and Public Relations, SC: Social Media, and SC: Sport Communication.

Strategic communication students are challenged to gain internship experience in non-profit organizations, corporate communication, advertising agencies, public relations agencies, sports communications organizations, and OSU communication outlets. Some put their skills to use by participating in the daily operations of Student Media at OSU available through the O'Colly Media Group. The O'Colly Media Group offers TV, radio, print, creative and sales opportunities through: Advertising, The O'Colly radio (podcasts and KXZY), The Daily O, One on One, The Franchise Show, Petes' Corner, the Poke Report and Modmuze. Some students also create content for OState.tv, the OSU online TV station. Students gain on-the-job experience through internships and many hold part-time jobs as campus communicators, brand experts, or media correspondents. Each year, SMSC participates in the National Student Advertising Competition, NSAC. The SMSC NSAC team has been nationally recognized numerous times.

The Strategic Communication program is affiliated with the American Advertising Federation, the American Academy of Advertising, the Public Relations Society of America and the Association of Women in Communication.

For more information, please go to https://cas.okstate.edu/media/.

Courses

MC 1143 Media in a Diverse Society (DS)
Description: A study of the media and their effect on our culture, with an emphasis on the media's role in racial, gender and sexual orientation issues in the United States. By analyzing the mass media, we learn to interpret the consequences of the stories they tell. An introductory survey course for majors and non-majors. Previously offered as JB 1143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Diversity, Society & Human Behavior

MC 2003 Mass Media Style and Structure
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with grade of "C" or higher, 24 credit hours earned and departmental majors only.
Description: Teaches basic writing skills vital to any career in mass communication. Emphasizes language skills with a focus on the rules of grammar and the meaning of words. Also teaches the basic strategies of information gathering, including how to glean accurate and useful background information from traditional and online sources. Introduces students to the fundamental writing styles and objectives required to convey information in different media. Previously offered as JB 2003, JB 1393, and JM 1123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

MC 2023 Digital Media Essentials
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with a grade of "C" or better, 24 credit hours earned and departmental majors only.
Description: Introduces students to electronic communication with a series of hands-on projects to develop their skills with basic photography, videography, podcasting and Web page development. Compares the various media platforms and teaches students visual grammar. Students create slide-shows and podcasts, learn to edit video, and develop Web pages using content created in class.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MC 2143 Media and Information Literacy (S)
Description: Students will be equipped with the competency, knowledge and skills to navigate, analyze, evaluate, and create media and digital content responsibly. Topics include the historical context, principles, and social implications of media, from traditional print media to contemporary digital/social media as well as critical thinking about the influence and impact of media on society, democracy, and personal decision-making. Issues will include misinformation, disinformation, digital citizenship, media ownership, representation, and bias in media.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Society & Human Behavior

MC 2360 Seminar in Mass Media
Description: A seminar-style course on varying media topics taught by faculty members on a rotating basis.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 3113 Introduction to Media Effects
Description: Mass media's potential to influence audience behavior is a subject that has long fascinated scholars and the general public. Aside from working & sleeping, individuals in the U.S. spend more time consuming media than any other activity. This course introduces media effects, and offers critical analysis methods to better understand the process and effects of the mediated message. A variety of media theories will be examined to understand how media can affect attitudes and behaviors on an individual and societal level. The theories will be used to examine a variety of different types of content, including media violence, portrayals of race and gender, entertainment, politics, strategic communication, and sport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 3173 History of Mass Communication (H)
Description: Growth and development of mass communication systems in America, with emphasis upon the economic, social and political interaction of the media. Previously offered as JB 3173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Human Heritage & Cultures

MC 3360 Current Topics in Mass Communication
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each; and pass proficiency review.
Description: Examination of timely topics and issues in contemporary media. May be repeated with different topics.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 4043 Media Study Abroad (G)
Description: Participation in an international experience sponsored by the School of Media and Strategic Communications. This will typically involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political, and economic issues especially as those areas related to media and communication. May not be used for degree credit with MC 5040 in same semester with same subtitle.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm
General Education and other Course Attributes: International Dimension

MC 4143 Ethics and Issues in Mass Communications
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Students examine classical theories of ethical behavior and their relevancy to professional communicators. Students learn to analyze various moral viewpoints, so they can discern a justifiable system of ethical decision-making. Students apply ethical reasoning and professional codes of conduct to scenarios to determine the most ethical action to take.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4153 International Mass Communication
Description: In today's interconnected world, media shapes our understanding of global events, cultures, and societies. Course examines comparative analysis of media systems, news production, entertainment formats, cultural representations, imbalances in international information flow, debates over media imperialism, and the interplay between local identities and global forces. Current issues will help identify the roles international media play in shaping values, ideology, and power dynamics within varied international contexts. No credit for students with credit in MC 5253. Previously offered as JB 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4163 Mass Communication Law
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Major principles of media law by examining the important court decisions, statutory and regulatory enactments in each area of communication law. Relevant constitutional freedoms and legal issues affecting professional communicators and all participants in a self-governing society. Practice applying the law and precedents to specific situations to determine if potential legal problems exist. No credit for students with credit in MC 5163. Previously offered as JB 4163 and JB 3163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4360 Advanced Topics in Mass Communications
Prerequisites: MMJ 3263, SC 3353, or SPM 3813 with a grade of "C" or higher; and pass proficiency review.
Description: Independent study and project development to fit the student's field of study. Previously offered as JB 4360. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 4733 Responsibility in Mass Communication
Prerequisites: MC 2003 with a grade of "C" or better; and pass proficiency review.
Description: Interaction between mass media and society with emphasis upon the communicator's ethics and responsibilities. Meets with MC 5733. No credit for students with credit in MC 5733. Previously offered as JB 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4753 Media and Elections
Description: Examination of media's role in the political process with primary emphasis on public affairs, political news, public relations and campaign advertising in traditional and social media spaces. No credit for students with credit in MC 5753. Previously offered as JB 4753 and MMJ 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in the School of Journalism and Broadcasting. Previously offered as JB 4993.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm
General Education and other Course Attributes: Honors Credit

MC 5000 Thesis
Description: For mass communication graduate students who are candidates for the master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5001 Capstone Project Prep
Prerequisites: MC 5113, MC 5333, and MC 5651 each with a B or better; and instructor permission.
Description: This course prepares mass communication graduate students for the degree completion option of Creative Component. Students will develop a proposal for their creative project, including preparing an introduction and rationale for the project, a review of relevant trade and scholarly literature, a methodology section outlining project execution, a timeline for project completion and an evaluation criteria for the project.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5010 Capstone Creative Project
Prerequisites: "B" or better in MC 5001, 5113, MC 5333, and MC 5651 and instructor permission.
Description: Capstone research project or creative activity for a mass communication graduate student. Offered for variable credit, 1-3 credit hours, maximum of 3 hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5011 Experience Report
Prerequisites: Instructor permission and MC 5020 (6 hours) or MC 5040 (6 hours).
Description: The Experience Report is a non-thesis, degree completion option for the Study Abroad or Practicum graduation candidates.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5020 Advanced Practicum or Internship in Mass Communication
Prerequisites: One semester of graduate coursework and consent of instructor.
Description: Applied training allowing students to relate theoretical principles to situations in professional settings. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5030 Independent Study in Mass Communication
Prerequisites: Consent of instructor.
Description: Independent study, directed readings or project development in mass communications to fit the student's academic and professional interests. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5040 Media International Experience
Prerequisites: Consent of instructor.
Description: Participation in either an international experience sponsored by the School of Media and Strategic Communications (SMSC) or a research or directed reading project in conjunction with a study abroad experience. An SMSC international offering will typically involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political, and economic issues especially as those areas related to media and communication. The project option would be a student-initiated and student-designed with a faculty adviser or mentor input and guidance. May not be used for degree credit with MC 4043 in same semester with same subtitle. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5113 Methods of Research in Mass Communication
Description: Principles and techniques of research; research planning, design and measurement in mass communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5143 Diversity In Sports Media
Description: This course examines sports media content, framing, personnel, and audiences in relation to diverse groups. Primary emphases are placed on race and ethnicity, gender, sex, LGBT, national identity, and disability. Sports media coverage of each group is examined from a historical perspective up through the 21st Century convergence of broadcast, online, and print journalism. Particular focus is placed on diversity among sport media gatekeepers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5163 Mass Communication Law
Prerequisites: MC 2003 and graduate standing.
Description: Major principles of media law by examining the important court decisions, statutory and regulatory enactments in each area of communication law. Relevant constitutional freedoms and legal issues affecting professional communicators and all participants in a self-governing society. Practice applying the law and precedents to specific situations to determine if potential legal problems exist. Meets with MC 4163. No credit for students with credit in MC 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5223 Mass Communication Research Analysis and Interpretation
Prerequisites: MC 5113.
Description: Single- and multi-variate analysis, interpretation and reporting of mass communication research data. Use of computers in research analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5253 International Mass Communication
Description: Examination of the nature and flow of news and information within and among nations, states, and societies from a theoretical vantage point grounded in region-specific realities. The political, economic, social, cultural and historical forces determining media practice in a global environment. No credit for students with credit in MC 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5283 Citizen Branding
Prerequisites: Graduate standing.
Description: The course is focused on promoting citizen engagement and community building in a digital era. It explores consumption of networked political campaigns, corporate and national identity branding, and participation in the social media marketplace. It examines the effect of media on community deliberation. This course will provide the tools to increase meaningful community engagement in ways that will transform our communities into more vibrant and interactive places.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5323 Nation Branding
Prerequisites: Graduate standing.
Description: Nation branding is defined for this course as the strategic act of shaping a country's reputation and country image through the use of branding techniques. This course will explore America's image abroad and attempt to understand the recent rise of anti-Americanism, as well as look at nation branding in other countries. May not be used for degree credit with GS 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5333 Media Theory
Prerequisites: Graduate standing.
Description: Mediating factors that affect interaction of ingredients in the communications process, and how these factors can affect the fidelity of information conveyed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5383 Media Relations
Prerequisites: Graduate standing.
Description: Strategies for dealing with the news media. Students will gain hands-on experience in conducting media news conferences, pitching story ideas and preparing themselves and others for dealing with news media interviews. Meets with SC 4383. No credit for students with credit in SC 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5443 Sports Branding
Prerequisites: Graduate Standing.
Description: Introduction to the multibillion-dollar industry of sports branding and sponsorship from the viewpoint of the team, the brand, and other entities involved. Sports branding creates and delivers brand content to fans to bolster engagement and loyalty towards the generation of revenue. Course covers the history of sports branding, the broader sport and eSports ecosystems, team and individual athlete branding, sponsorship, and the role of globalization and virtual-based Consumer technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5483 Nonprofit Branding
Prerequisites: Graduate Standing.
Description: This course explores the role of strategic communications for nonprofit organizations. It will provide students with an in-depth understanding of how communication theories can be applied to build organizational brand, foster commitment to organization's mission, increase trust, create ambassadors, strengthens impact, and create lasting social change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5520 Specialized Strategic Communications Applications
Prerequisites: One semester of graduate course work and consent of instructor.
Description: Professional strategic communications at an advanced level. Strategic communications study of non-profit, corporate, agency, international and other specialized applications. Course content varies by semester. No credit for students with credit in SC 4520 during the same semester or with the same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5540 Specialized Multimedia Journalism Applications
Prerequisites: Graduate standing.
Description: Professional journalism at an advanced level. Special topics in areas such as announcing, performance; political, business, and investigative reporting; advanced layout and design or audio production; feature, column and editorial writing. Course content varies by semester. Meets with MMJ 4540. No credit for students in MMJ 4540 during the same semester or with the same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5560 Specialized Sports Media Applications
Prerequisites: Graduate standing.
Description: Professional sports media at an advanced level. Special topics in areas such as sports media production, announcing, performance; sports feature, column and editorial writing. Course content varies by semester. Meets with SPM 4560. No credit for students in SPM 4560 during same semester or with same subtitle. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5603 Integrated Marketing Communication
Prerequisites: Graduate standing. Previous Mass Communication or Marketing coursework.
Description: Advanced exploration of the strategic planning and implementation of Integrated Marketing Communication campaigns. Uses case studies, projects, and industry examples to emphasize the importance of coordinating and combining diverse traditional and digital marketing tools and channels (advertising, public relations, direct marketing, and sales promotion) to deliver clear, consistent, high-impact messages that resonate with target audiences. Course also delves into contemporary theories, models, and tools that inform decision-making in promotional communication strategies. No credit for SC 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5613 Storytellers Studio
Prerequisites: Graduate standing.
Description: This is a graduate seminar designed to provide an understanding of the theory and practice of mass media. Through readings, lectures, multi-media presentations and guests who are industry experts, we explore the main media institutions and how they create, exhibit, and disseminate their products. The course also explores how diverse audiences and users select, use and react to media content. Special attention is paid to the audience/medium relationship, improving media literacy and a broad understanding of media ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5651 Introduction to Graduate Study in Mass Communications
Prerequisites: Graduate standing.
Description: Orientation to skills necessary for successful completion of graduate work. Training in library and archival research, academic writing and preparation of research reports, familiarization with theoretical concepts and issues associated with mass communication. Required of all mass communication MS candidates, and prerequisite to MS candidates enrolling in mass communication seminars. Previously offered as MC 5653.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5733 Responsibility in Mass Communication
Prerequisites: Graduate standing.
Description: Interaction between mass media and society with emphasis upon the communicator's ethics and responsibilities. Meets with MC 4733. No credit for students with credit in MC 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5753 Media And Elections
Prerequisites: Graduate standing.
Description: Examination of media's role in the political process with primary emphasis on public affairs, political news, public relations and campaign advertising in traditional and social media spaces. May not be used for degree credit with MMJ 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5770 Seminar in Communication Media
Prerequisites: Graduate standing.
Description: International communication, media history, legal research, new technology, women and the media, television and children, industrial television, and communication research. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MC 5773 Censorship
Prerequisites: Graduate standing.
Description: Critical examination of historical and contemporary occurrences of censorship from legal, philosophical, political, religious and sociological perspectives. The course will explore the definition of censorship, the common elements found in all forms of censorship, the rationalizations and justifications for censorship, and the consequences and unintended results of censorship. No credit for students with credit in MMJ 2773 or MMJ 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5843 Sport Fanship
Prerequisites: Graduate Standing.
Description: An in-depth examination of modern sport fans and their relationship with the sports media industry. The class will define sport fanship in today's context, cover the many causes of fanship, and explore its social and psychological consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5883 Media Management
Prerequisites: Graduate Standing.
Description: The focus of this course is on an integrated approach to the management in an organization, particularly grounded in organizational theory. Management concerns in mass communication practice, including public relations, brand management, digital production, multimedia journalism and sports media. Different emphases offered according to student demand or need.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5933 Theories of Persuasion
Prerequisites: Graduate standing.
Description: In order to extend our understanding of Strategic Communication, it is important to study the large body of scientific research dealing with persuasion and persuasive communication. This is not a course on how to be a better persuader, but instead a study of the theories of persuasion. However by exploring the academic literature on persuasion, many strategies can be learned and used to not only make us better communicators, but also to help us resist persuasive attempts that we may encounter as citizens and consumers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MC 5953 Strategic Health Communications Campaigns
Prerequisites: Graduate standing.
Description: The course will focus on theoretical approaches to health message design and the most effective and strategic use of traditional and new media outlets. Students also will review and discuss examples of past and current health communication campaigns in the United States and around the world. Integrating theory and practice, students will apply these concepts to design strategic communication campaigns for area health agencies and organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 2063 Fundamentals of Journalism
Prerequisites: Departmental majors only. (MMJ, SPM, SC, and PMC.)
Description: Basics of journalism, its role in society and problems and issues facing journalism. History, philosophy, ethics and current events will be discussed. Students also will practice the basics of interviewing and writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 2773 Censorship
Description: A critical examination of historical and contemporary occurrences of censorship from legal, philosophical, political, religious and sociological perspectives. We will explore the definition of censorship, the common elements found in all forms of censorship, the rationalizations and justifications for censorship, and the consequences and unintended results of censorship. We also critically examine relevant First Amendment theories, principles and applications. No credit for students with credit in MC 5773. Previously offered as JB 4773 and MMJ 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3153 Fundamentals of Video and Studio Production
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better; and pass proficiency review.
Description: Theory and practice of basic audio and video production techniques leading to later applications in audio, video and multimedia production. Introduction to studio operations for video and podcasting. Previously offered as JB 3153.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3263 Multimedia Reporting
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: Prepares students for the rigors of writing, reporting and visual storytelling for professional journalism outlets. Real-world assignments provide practical experience reporting and writing across media platforms. Emphasis on compelling storytelling and depth of reporting with an expectation that student work will be published or broadcast. Continuing command of grammar and style from MC 2003 will further be honed. News judgment, interviewing, the ability to meet deadlines will be addressed. Gathering news in an ethical manner is also emphasized. Previously offered as JB 2393 and JB 3263.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3293 Information Graphics
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better; and pass proficiency review.
Description: Using computer-designed charts, maps, graphs, diagrams and other visual representations of information to tell the news. Combines theories of non-verbal communication and practical application. Includes the basic design concepts and techniques for creating TV and video graphics. Previously offered as JB 3293.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

MMJ 3313 Multimedia Editing
Prerequisites: MMJ 3263 with a grade of "C" or better or concurrent enrollment in MMJ 3263, pass proficiency review.
Description: Principles and practice in editing copy for print, broadcast and Web, selecting pictures and video, and writing headlines, cutlines, blurbs, teases and promos. Strong emphasis placed on language usage and ethical decision-making. Previously offered as JB 3313 and JB 2413.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 3553 Advanced Reporting
Prerequisites: MMJ 3153 and MMJ 3263 with “C” or better in both, and pass proficiency review.
Description: Reporting techniques empowering journalists to fulfill their watchdog role in a democracy. Practical experience in accurately reporting and writing on deadline. Emphasis on multimedia to tell the news of government through people. Emphasizes importance of human diversity and cultivating sources ethically. Stresses the use of government documents. Previously offered as JB 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: JB Equipment Use fee of $10 applies.

MMJ 3773 Multimedia Voice and On-Camera Performance
Prerequisites: MMJ 3153 and MMJ 3263 with a grade of "C" or better in both; and pass proficiency review.
Description: Broadcast professionals team up with experienced faculty to polish the on-air performance of media students. In this class students will anchor and report news and discover their own personal style of delivering the news and sports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3873 Podcast and Audio Production
Prerequisites: MMJ 3153 with a grade of C or better; and pass proficiency review.
Description: Prepares students to work in radio and internet audio production and imaging. Students prepare and present materials in a broadcasting situation. Students learn about and develop skills in different formats of audio production, including the production of audio messages such as radio commercials and long-form programming, including podcasting. Previously offered as JB 3873 and JB 2873.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 3900 Multimedia Journalism Internship
Prerequisites: MMJ 3153 and MMJ 3263 with a grade of "C" or better and consent of instructor, and pass proficiency review.
Description: Internship practice for qualified multimedia journalism students who seek creative communications experience off-campus beyond what is available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Previously offered as JB 3900. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MMJ 3913 Multimedia Content Creation
Prerequisites: MMJ 3153 and MMJ 3263 or SPM 3813 with a grade of "C" or better in both; and pass proficiency review.
Description: Techniques to write and produce creative content (video, audio and web-based projects) in a real-world environment. Students will produce material in the field, without assistance from studio engineers or other personnel. Applications are endless, but include social media content creation, sports, news, documentary, multimedia and long-form journalism projects, and even live production. Although a news format may be used for projects, the skills taught will translate into many production fields. Previously offered as JB 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 3943 Photojournalism
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each, and pass proficiency review.
Description: Theory and practice in the digital techniques of photojournalism. Intermediate concepts of lighting, composition, action and storytelling via digital photography. A basic understanding of photography and photo developing necessary. Must have access to 35mm single reflex or digital camera. Previously offered as JB 3943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4393 Data Journalism
Prerequisites: MMJ 3263 or SPM 3813 with a grade “C” or better, pass proficiency review; STAT 2013 or STAT 2023 or STAT 2053.
Description: Provides practical experience using data analysis while combining social science research methods with the process approach to news writing. Teaches how to find, analyze and visualize data. The data analysis will provide an essential element for a print or broadcast story. Follow-up reporting and writing emphasize how people are affected. Previously offered as JB 3393 and 4393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4413 Investigative Reporting
Prerequisites: MMJ 3553 with a grade of "C" or better; and pass proficiency review.
Description: Emphasizes the ethical use of primary sources, in-depth analysis and rigorous fact-checking to reveal important public matters that that others might be trying to conceal. Students learn to correctly estimate the nature, scope, importance and resources needed to conduct an original investigative project. They examine the ethical dilemmas and legal obstacles facing investigative reporters. Students report, write and produce a completed multimedia investigative project for publication and/or broadcast. Previously offered as JB 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4433 Multimedia Feature Writing and Storytelling
Prerequisites: MMJ 3153 and MMJ 3263 with "C" or better; and pass proficiency review.
Description: In-depth features that combine writing, broadcast, photography and other elements as needed to produce packages. Previously offered as JB 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4540 Specialized Multimedia Journalism Applications
Prerequisites: MMJ 3153 or MMJ 3263 with a grade of "C" or better and consent of department; and pass proficiency review.
Description: Professional journalism at an advanced level. Special topics in areas such as announcing, performance; political, business and investigative reporting; advanced layout and design or audio production; feature, column and editorial writing. Course content varies by semester. Meets with MC 5540. No credit for students in MC 5540. Previously offered as JB 4540. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

MMJ 4573 Broadcast Documentary
Prerequisites: MMJ 3913 with a grade of "C" or better; and pass proficiency review.
Description: Written and produced broadcast documentaries designed for distribution in multiple video platforms. Previously offered as JB 4573. May not be used for degree credit with ENTM 4573.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 4863 Media Management
Prerequisites: MMJ 3263 or SPM 3813 with a grade of "C" or better; and pass proficiency review.
Description: Basic issues, concepts, operational procedures and strategies associated with effectively managing media corporations. Examines management operations related to media convergence and audience measurement. Emphasis is placed on making ethical decisions and administrative choices in staffing and content that reflect a community's diversity. Previously offered as JB 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4953 Advanced Production Practices
Prerequisites: MMJ 3913 and MMJ 3263 with a "C" or better; and pass proficiency review.
Description: Advanced professional television production. Student produced and directed television programs, including "specials," for distribution on cable or other professional media. Previously offered as JB 4953.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Media & Strategic Comm

MMJ 4960 Live Production
Prerequisites: MMJ 3153 with a grade of "C" or better; and pass proficiency review or consent of instructor.
Description: Develop a live, in-the-field or studio production from writing a program proposal to an actual live broadcast. Students determine what equipment is needed; conduct a site survey to develop a location plot for the site; determine the best location for the cameras and master control area; write a facilities request; and create scripts. Students learn proper techniques of in-the-field or studio videography, switching (live editing), and audio. Homecoming parade, its pre-show and other events are required. Previously offered as JB 4960. Offered for 3 fixed credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4970 Newscast Production
Prerequisites: MMJ 3153 or MMJ 3263 with a grade of "C" or better in each, pass proficiency review.
Description: Advanced skills in reporting, news producing, editing and anchoring. Students will assemble a video newscast or newsmagazine with content that is usable across various media platforms. Offered for 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

MMJ 4973 Multimedia Journalism Capstone
Prerequisites: MMJ 3553 and MMJ 4393 each with a grade of "C" or better; and pass proficiency review.
Description: Advanced principles and techniques for students specializing in both news and digital production. Students come together as teams to create multimedia news products.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 2083 Digital Communication for Strategic Communication
Prerequisites: ENGL 1213 or ENGL 1223 or ENGL 1413 with a grade of "C" or better. 24 hours earned and SC maiors only.
Description: This course introduces students to Digital Communications in Strategic Communication. The course will focus on fundamental principles and skills of digital storytelling, including social media and video creation. Using multimedia tools, students will gain skills for visually communicating a strategic brand story through digital channels. There will be an emphasis on basic skill set, with a series of hands-on lessons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 2183 Introduction to Strategic Communications
Description: Strategic communication is crafting and delivering impactful messages that drive organizational success and plays a crucial role in shaping brand identity, managing crises, and putting stakeholders at the forefront of decisions. Create planned, purposeful, and powerful communications that resonate with targeted audiences and achieve strategic goals. Learn about communication in shaping public perception, building lasting relationships and navigating ethical complexities. Explore careers in advertising, public relations, corporate communications, and marketing. Previously offered as JB 2183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 2330 Industry Immersion in Strategic Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of 'C' or better in each, and pass proficiency review.
Description: This course will expose strategic communication (SC) majors to work environments related to their major. Through industry site visits in Oklahoma, students will network with professionals to observe, engage, and reflect upon the professional practice of strategic communicators. Students will observe SC practices and work cultures at advertising, marketing, and public relations agencies: corporate communication and government offices: and nonprofits. Professional development activities for job/internship searches. Variable credit, 1-3 credit hours, maximum of 6. Previously offered as SC 2333.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3050 Topics in Global Communication
Prerequisites: SC 2183 and MC 2003; and MC 2023 or SC 2083 or instructor permission with a grade of 'C' or better in each, and pass proficiency review.
Description: Global communication strategies at an advanced level. Strategic communication topics to center on contemporary global messaging and will vary. These will include agency, government, diplomatic, non-profit, corporate, sustainability and/or brand communication on a global stage. Students will prepare to navigate personally and professionally at a global level, examine worldwide communication issues, and develop critical thinking skills, knowledge and attitudes that will enable them to collaborate across cultural boundaries and lead with ethical and engaged citizenship. For 3 credit hours, Max: 9
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3353 Persuasive Writing for Strategic Communicators
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each, pass proficiency review.
Description: An examination of the language of persuasive communication, how persuasion works and the techniques of persuasive message strategy. Application of persuasive writing for traditional media and emerging digital media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

SC 3383 Strategic Communications Management and Strategies
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: Course explores account management techniques, tools, and advanced advertising and public relations strategies. Account executives focus on managing projects, people, clients, agencies, and crises. Strategic communicators must consider ways to effectively manage image, issues, and information. Students will learn and practice how to manage these effectively and to create, develop, implement, and evaluate effective communication strategies in various organizational contexts. Course previously offered as JB 3383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3443 Social Media Playbook
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: Every communicator knows the value of a solid social media presence, but how do you get one? This class focuses on social media strategy from the ground up. Students will learn how to leverage social media platforms, tools, and strategies to connect with audiences. Topics may include: building your brand on social; strategies for capturing and engaging target audiences; influencer marketing; planning social media campaigns; and optimizing strategies for earned, owned, and sponsored content.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3463 Event Planning and Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each or permission of instructor.
Description: This course covers the fundamentals of event planning from a strategic communications perspective. Teaches a variety of aspects involved in event planning including creating a vision and strategic plan, understanding various marketing strategies, budget management, networking, conference design, and assessment. Attendance of two events outside of class are required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3483 Nonprofit Communications
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review.
Description: This course will offer an overview of branding and communications concepts, helping students approach branding in a way that builds commitment to their organization's mission, increases trust, creates ambassadors, and strengthens impact. Students will gain a basic familiarity with a variety of branding principles, fundraising techniques and develop strategic communication recommendations for an organization with which they are familiar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3600 Strategic Communications Internship
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both and consent of instructor; and pass proficiency review.
Description: Internship practice for qualified strategic communications students who seek creative communications experience beyond that available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Course previously offered as JB 3600. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 3603 Creative Strategies
Prerequisites: SC 2183, MC 2003 and MC 2023 or SC 2083 with a grade of ‘C’ or better in each, and pass proficiency review.
Description: This course emphasizes the development of creative strategies in advertising and public relations campaigns. It teaches students to think creatively to solve advertising and PR challenges and to effectively formulate the campaign’s 'Big Idea.' Students will learn to innovate through brainstorming and concept development, integrating insights from target audience, market, and product research. Hands-on exercises in copywriting and design will enable students to apply creativity in various marketing contexts, culminating in a campaign board. Previously offered as JB 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3693 Social Media Analytics
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: This course introduces students to the fundamental principles and techniques of social media analytics, focusing on the collection, analysis, and interpretation of social media data for advertising and public relations purposes. Emphasizing practical, hands-on experience, students will learn to utilize programming languages like R to understand social media trends, audience behavior, and campaign effectiveness. However, pre-existing knowledge of programming languages is not required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3753 Graphic Design for Strategic Communication
Prerequisites: MC 2003 and MC 2023 or SC 2083, and SC 2183 with a grade of "C" or better in each, pass proficiency review.
Description: An analysis and application of graphic design elements in strategic communication to be used in traditional and new media. Instruction through weekly assignments, critiques, readings, lectures, and discussions. Creative and practical aspects of typography, color, composition, shape, and pattern, providing a foundation for interpreting and applying graphic design concepts in both print and digital media. Course encourages a self-directed and experimental approach, allowing students to engage with practical design projects and develop their creative skills. Course previously offered as JB 3753.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SC 3783 Strategic Sport Communication
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in each; and pass proficiency review.
Description: Provides an overview and introduction to sport media consumption and communication within the sport industry. The primary focus of the course is on the role of strategic communication in all aspects of sport, fundamentals of sport publicity and promotional campaigns. Course previously offered as JB 3783 and SPM 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 3953 Research Methods for Strategic Communicators
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and STAT 2013 or STAT 2053; and pass proficiency review.
Description: This course provides an overview of strategic communication research, emphasizing its application in developing and evaluating strategic communication strategies. Primary and secondary research are employed to understand target audiences, including consumers, stakeholders, and the public. The course outlines procedures for conducting a research project, engaging students in the research planning process, gathering primary data, and analyzing and parenting results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4013 Media and Markets
Prerequisites: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and STAT 2013 or STAT 2053; and pass proficiency review.
Description: Introduction to the strategic use of media. Major principles of media planning and buying, audience measurement, media research, new media technology, and market segmentation. Course previously offered as JB 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4053 Study Abroad: Strategic Messaging
Description: Course involves participation in an international experience facilitated by Strategic Communication faculty. This course will involve the integrated study of a country or region regarding relevant cultural, commercial, historical, technological, political or economic issues. Students will develop global cultural competencies and professional preparedness through travel and engagement with the destination's citizens. Course assignments and discussions will focus on strategic messaging with focus on the perspective of the location and its social, cultural and/or political perspectives.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 4063 Creative Video for Digital Strategy
Prerequisites: SC 3353 and SC 3753 with grade of "C" or better and pass proficiency review.
Description: This course focuses on strategies for social media communicators, technical video productions skills, and creative principles required to plan, shoot, and edit impact videos for social media. Students will produce Impact Videos to promote clients' visual brand identity on social media platforms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4223 Media Sales and Marketing
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or better in both; and pass proficiency review.
Description: The primary focus of this course is to learn to sell advertising time and space and gain insight into the professional sales process. Course will explore the role of sales in the marketing mix, the intricacies of the different local media available to advertisers, how to make effective sales presentations and the art of prospecting. Course previously offered as JB 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4383 Media Relations
Prerequisites: Senior standing, minimum graduation/retention GPA of 2.5.
Description: Strategies for dealing with the news media. Students will gain hands-on experience in conducting media news conferences, pitching story ideas and preparing themselves and other for dealing with news media interviews. Meets with MC 5383. No credit for students with credit in MC 5383. Course previously offered as JB 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4493 Strategic Writing for Content Creation
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: An advanced writing application course in creating, planning, researching, editing, and designing of multimedia content used in strategic communication. Previously offered as JB 4493.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm
Additional Fees: AP Stylebook fee of $5.30 applies.

SC 4520 Specialized Strategic Communication Applications
Prerequisites: SC 3353 and SC 3753 with a grade of "C" or better in both; and pass proficiency review.
Description: Professional strategic communications at an advanced level. Strategic communications study of non-profit, corporate, agency, international and other specialized applications. Course content varies by semester. No credit for students with credit in MC 5520 during the same semester or with the same subtitle. Course previously offered as JB 4520. Offered for fixed 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SC 4603 Integrated Marketing Communication
Prerequisites: MC 2003 and MC 2023 and SC 2183; or MKTG 3213 with a grade of "C" or better in each.
Description: Principles and practices of Integrated Marketing Communication/IMC. Examination of how various communication tools blend to create consistent and effective messages across multiple channels. Includes key elements of the promotional mix: advertising, public relations, direct marketing, and sales promotion. Students will learn basic IMC strategies that align with overall marketing goals and understanding target audiences, crafting compelling messages, and selecting appropriate communication channels. Intro to fundamental theories and current trends in marketing communication. Previously JB 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4653 Influencers, Promotions and Placements
Prerequisites: SC 2183 and MC 2003; and MC 2023 or SC 2083; with a grade of "C" or better in each; and pass proficiency review.
Description: Advanced practices in strategic communication focusing on influencer marketing, cross promotions and product placement. Students will learn to build authentic connections with audiences, generate buzz, and integrate brands into popular culture. Ideal for those aiming to innovate in advertising, marketing, public relations, and sport communication, this course offers a comprehensive understanding of how modern brands succeed in a competitive marketplace. Previously offered as JB 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4663 Professional Portfolio
Prerequisites: SC 3353 and SC 3753; or MMJ 4423 with a grade of "C" or better in each; or permission of instructor; and pass proficiency review.
Description: Designed to help students polish and present their design and creative work in an integrated package coupled with personalized identity materials. Emphasis will be on applying advanced visual and graphic communication theories to present an attractive and persuasive portfolio of creative work. It is intended for students who have completed a significant amount of course work in their field. An intermediate level of experience with desktop design software is assumed.. Course previously offered as JB 4663.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SC 4843 Strategic Communication Campaigns
Prerequisites: SC 3953 and SC 4493; both with "C" or better; and pass proficiency review.
Description: Planning, preparation and presentation of comprehensive integrated strategic communication campaigns for national or local clients. Student teams produce all aspects of the campaign, from conception to presentation. Satisfies capstone requirements for strategic communication majors. Course previously offered as JB 4843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4940 Communication Competitions
Prerequisites: Instructor permission
Description: Course focuses on building the foundations for the Advertising Competitions course. It provides students with experience conducting primary and secondary research and executing the fundraising campaign. Working under a team concept on American Advertising Federation's (AAF) National Student Advertising Competition (NSAC), students will produce a detailed situation analysis, communications audit, primary and secondary research identifying problems and opportunities, and target audience analysis. Students accepted by application and interview.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SC 4980 Advertising Competitions
Prerequisites: Consent of instructor.
Description: Gain real-world experience on a team developing an integrated advertising campaign for the prestigious American Advertising Federation (AAF) National Student Advertising Competition (NSAC). Through extensive research, strategic planning, and creative execution, students will apply their advertising knowledge and skills and develop expertise in branding, marketing, media strategy, and campaign materials. Admission is by application. This course offers hands-on learning, professional mentoring, and the opportunity to showcase your work regionally and nationally. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 1883 Introduction to eSports
Description: This course introduces students to eSports. Students will learn about this history of eSports, the rapidly growing world of gaming, genres, streaming, lifestyle, careers, and the various eSports communities to understand how their different roles affect each other. We will begin to explore ways in which eSports are deeply rooted within media and broadcasting. Students will be able to demonstrate their ability to work as a group through team building exercises and effective team communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 2843 Sports and the Media
Prerequisites: Departmental majors only.
Description: An introductory course for sports media majors and an examination of the multibillion-dollar global sports industry. This course examines the state of the industry and professional careers associated with it. Topics include the evolution of sports media, racial, gender and inclusiveness issues in sports, multimedia sports journalism and ethics in the 21st century, sports communications and sports marketing. Course previously offered as JB 2843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 3500 Sports Media Internship
Prerequisites: SPM 3813 and MMJ 3153 or (SC 3353 and SC 3753) with a grade of "C" or better and consent of instructor; and pass proficiency review.
Description: Internship practice for qualified sports media students who seek creative communications experience beyond that available in the classroom. Internships must be approved prior to counting hours worked. Must work sixty or more hours for each credit hour up to three credit hours for each individual internship. Course previously offered as JB 3500. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SPM 3813 Sports Reporting for Multimedia
Prerequisites: MC 2003 and MC 2023 with a grade of "C" or higher in both; and pass proficiency review.
Description: Provides an introductory reporting course specifically for aspiring professionals of major sectors of the multimedia sports industry (i.e., television, internet, public relations, newspapers, radio, social media and magazines). Students learn the basics of game summaries, keeping accurate statistics, conducting interviews, structuring print and electronic media stories, incorporating quotes in sports media content, all while adhering to AP style and ethical standards of journalism and communications professions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 3843 Contemporary Sports Issues
Prerequisites: MC 2003 and MC 2023 with grade of "C" or better in both; and pass proficiency review.
Description: This class will examine ethical and cultural considerations of the sports media as they pertain to case studies in sports promotion, NIL (Name, Image, and Likeness), sports gambling, drugs in sports, athletes and crime, privacy of athletes, gender and race in sports, international sports, labor issues in sports, and how the Internet is changing sports coverage.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 3863 Advanced Sports Reporting for Multimedia
Prerequisites: MMJ 3153 and SPM 3813 each with a grade of “C” or better; and pass proficiency review.
Description: Course builds upon SPM 3813 skills with introduction of sports anchoring skills, studio “sports debate” programs, extended audio stories (features and mini-podcasts) and video packages with companion print stories. Students will contribute these stories to student media productions and outlets. The course also discusses use of social media for professional purposes, online content creation, and current topics impacting multimedia sports journalism and professional ethics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 3880 Topics in eSports
Description: Special topics in the field of eSports such as: eSports history, on-air talent, broadcasting, competition management, program coordination, brand management, promotion and advertising. Course content varies by semester. Each topic covered in the course is intended broaden students' horizons on the scope of, and ability to participate in, the eSports universe. No credit for students with previous credit for this course with same subtitle. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4053 Sports Announcing
Prerequisites: MMJ 3153 and SPM 3813 with a grade of “C” or better; and pass proficiency review.
Description: Focuses on theory and practice of electronic media sports coverage, with an emphasis on the role, skills and practices of radio, TV, and online sports announcers. The class includes simulated play-by-play broadcasts and a class project. Course previously offered as JB 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4560 Specialized Sports Media Applications
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3153; each with a grade of "C" or better; and pass proficiency review.
Description: Professional sports media at an advanced level. Special topics in areas such as sports media production, announcing, performance; sports feature, column and editorial writing. Course content varies by semester. No credit for students in MC 5560 during same semester or with same subtitle. Course previously offered as JB 4560. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Media & Strategic Comm

SPM 4813 Sports Media Production
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3153; each with a grade of “C” or better; and pass proficiency review.
Description: This course teaches creative editing and storytelling techniques specifically for the sports industry. Students produce promos, create highlight videos, and learn new software that is commonly used in the profession. Previously offered as JB 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4833 Sports Information
Prerequisites: SC 3353 or SPM 3813 with a grade of "C" or higher; and pass proficiency review.
Description: This course teaches skills needed to work in the sports information or sports public relations fields, particularly at the college level. Students will learn to write about a wide variety of collegiate sports while applying AP Style, proper grammar and effective storytelling. Students will also gain hands-on experience using social media in the sports information field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

SPM 4853 Advanced Sports Writing
Prerequisites: SPM 2843 and SPM 3813 and MMJ 3263 with a grade of "C" or better in each; and pass proficiency review.
Description: Advanced sports writing and reporting, which includes a wide variety of writing and reporting assignments, leading to an emphasis on enterprise and investigative reporting, as well as long-form features. Final projects should be of such quality to serve as the lead products in individual student portfolios. Same course as JB 3853 and SPM 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Media & Strategic Comm

SPM 4883 Sports Media Capstone
Prerequisites: SPM 3863 and MMJ 4393 each with a grade of "C" or better in both; and pass proficiency review.
Description: Capstone course for multimedia sports majors, giving them the opportunity to apply the skills they have learned to a final project that will be coordinated with a media outlet with the goal of publication. In addition, students will work on writing for print and electronic media, multimedia sports programming, management skills, and ethics and cultural issues in sports media. Course previously offered as JB 4883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Media & Strategic Comm

Undergraduate Programs

- Multimedia Journalism, BA (p. 1585)
- Multimedia Journalism, BS (p. 1588)
- Sports Media, BA (p. 1591)
- Sports Media, BS (p. 1594)

- Strategic Communication: Advertising and Public Relations, BA (p. 1597)
- Strategic Communication: Advertising and Public Relations, BS (p. 1600)
- Strategic Communication: Social Media, BA (p. 1603)
- Strategic Communication: Social Media, BS (p. 1606)
- Strategic Communication: Sport Communication, BA (p. 1609)
- Strategic Communication: Sport Communication, BS (p. 1612)

Graduate Programs

The School of Media and Strategic Communications offers courses leading to the degree of Master of Science in mass communications. Preferred qualifications for admission to the master's program include a bachelor's degree in an area of mass communication with an overall grade-point average of 3.0. The Graduate Record Exam (GRE) is not required. Graduates of a non-mass communication discipline may enter the Master of Science program, with the stipulation that they complete, without graduate credit, foundation courses relevant to career interests during the first year of their graduate education.

Specialty tracks in brand communication, global communication, and sports communication are offered. Basic emphasis is on the application of communication theories and research to the professional aspects of mass communication. Electives in behavioral sciences, business, or global studies are encouraged. For degree completion, students may complete a thesis, creative project, advance practicum, or study abroad experience under faculty supervision.

Faculty

Jared Johnson, PhD—Director and Associate Professor
Lori McKinnon, PhD -- Associate Director and Professor
Professors: John McGuire, PhD (Welch-Bridgewater Chair of Sports Media); Lori McKinnon, PhD (Peggy Layman Welch Chair in Integrated Marketing Communication)
Associate Professors: Steve Collins, PhD; Asya Cooley, PhD; Skye Cooley, PhD; Jack Hodgson, MA; Jared Johnson, PhD, Bobbi Kay Lewis, PhD; Dylan McLemore, PhD; Ray Murray, MA; Joey Senat, PhD
Assistant Professors: Andrew Abernathy, EdD; Rosemary Avance, PhD; Benetta Liu, PhD; Sujin Kim, PhD; Rachel Lim, PhD; Benetta Liu, PhD; Sumin Shin, PhD
Professors of Professional Practice: Gina Noble, MS
Assistant Professors of Professional Practice: Jinger Bernhardt, PhD; Nuurrianti Jalli, PhD
Visiting Associate Professors: Kelly Ogle, BS
Lecturer: Max Andrews, MS; Bonnie Cain-Wood, MS

Multimedia Journalism, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G) or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared MMJ major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
MMJ 2063	Fundamentals of Journalism	3
Upper-division Professional Sequence		
Proficiency Review required		
MMJ 3153	Fundamentals of Video and Studio Production	3
MMJ 3263	Multimedia Reporting	3
MMJ 3553	Advanced Reporting	3
MMJ 4393	Data Journalism	3
MMJ 4973	Multimedia Journalism Capstone	3
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Select three courses (9 hours) from the following list:		9
MMJ 3313	Multimedia Editing	
MMJ 3773	Multimedia Voice and On-Camera Performance	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4413	Investigative Reporting	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4573	Broadcast Documentary	
MMJ 4953	Advanced Production Practices	
MMJ 4960	Live Production (3 hours, max 6)	
MMJ 4970	Newscast Production (3 hours, max 6)	
Select 9 additional hours of MC-MMJ-SC-SPM (3 hours must be upper-division)		9
Select 6 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or Gen Ed		6
Hours Subtotal		**54**
Electives		

Select 4 hours - One hour may need to be upper-division.	4
May need to include 6 hours upper-division general education or CAS courses outside major department (see note 2.c.)	
MATH 1483 or MATH 1513 required for students not placing directly into STAT	
Hours Subtotal	**4**
Total Hours	**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For BA and BS degrees, no more than 54 hours in one department (MC-MMJ-SC-SPM) may be required to meet degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
MMJ 2063	Fundamentals of Journalism (Fall Only)	3
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
1713 First Semester Foreign Language		3
General Education courses		3
Note: MC 2003, MC 2023 and MMJ 2063 could be taken as late as junior fall.		
	Hours	**15**
Spring		
MMJ 3153	Fundamentals of Video and Studio Production	3
MMJ 3263	Multimedia Reporting	3
1813 Second Semester Foreign Language		3
College and Elective courses		6
Note: MMJ 3153 and MMJ 3263 could be delayed until junior year.		
	Hours	**15**
Junior		
Fall		
MMJ 3553	Advanced Reporting (Fall Only JR or SR year)	3
2000-level - Third Semester Foreign Language		3
Choices from "Pick Three" List to be taken in JR and SR years. Fall options typically include:		3
MMJ 3773	Multimedia Voice and On-Camera Performance	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4960	Live Production	
Major, College, and Elective courses		6
	Hours	**15**
Spring		
MMJ 4393	Data Journalism (Must pass STAT first)	3
MC 4143	Ethics and Issues in Mass Communications	3
Choices from "Pick Three" List to be taken in JR and SR years. Spring options typically include:		3
MMJ 3313	Multimedia Editing	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4573	Broadcast Documentary	
MMJ 4953	Advanced Production Practices	
MMJ 4970	Newscast Production	
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
MC 4163	Mass Communication Law	3
Major, College, "Pick Three" and Elective courses		12
	Hours	**15**
Spring		
MMJ 4973	Multimedia Journalism Capstone (Spring only)	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Multimedia Journalism, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC, MMJ, SC and SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared MMJ major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
MMJ 2063	Fundamentals of Journalism	3
Upper-division Professional Sequence		
Proficiency Review required		
MMJ 3153	Fundamentals of Video and Studio Production	3
MMJ 3263	Multimedia Reporting	3
MMJ 3553	Advanced Reporting	3
MMJ 4393	Data Journalism	3
MMJ 4973	Multimedia Journalism Capstone	3
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Select three classes (9 hours) from the following list:		9
MMJ 3313	Multimedia Editing	
MMJ 3773	Multimedia Voice and On-Camera Performance	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4413	Investigative Reporting	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4573	Broadcast Documentary	
MMJ 4953	Advanced Production Practices	
MMJ 4960	Live Production (3 hours, max 6)	
MMJ 4970	Newscast Production (3 hours, max 6)	
Select 9 additional hours of MC, MMJ, SC or SPM (3 hours must be upper-division)		9
Select 6 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or Gen Ed		6
Hours Subtotal		**54**
Electives		
Select 13 hours - One hour may need to be upper-division.		13
May need to include 6 hours of a foreign language. See note 3		

May need to include 6 hours upper-division general education or CAS courses outside major department (see note 2.c.)	
MATH 1483 or MATH 1513 required for students not placing directly into STAT	
Hours Subtotal	**13**
Total Hours	**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For BA and BS degrees, no more than 54 hours in one department (MC-MMJ-SC-SPM) may be required to meet degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
General Education courses		13
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
	Hours	**16**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
MMJ 2063	Fundamentals of Journalism (Fall only)	3
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
General Education courses		6
Note: MC 2003, MC 2023 and MMJ 2063 could be taken as late as junior fall.		
	Hours	**15**
Spring		
MMJ 3153	Fundamentals of Video and Studio Production	3
MMJ 3263	Multimedia Reporting	3
College and Elective courses		9
Note: MMJ 3153 and MMJ 3263 could be taken in junior year.		
	Hours	**15**
Junior		
Fall		
MMJ 3553	Advanced Reporting (Fall only JR/SR year)	3
Choices from "Pick Three" List to be taken JR/SR year. Fall choices typically include:		3
MMJ 3773	Multimedia Voice and On-Camera Performance	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4960	Live Production	
Major, College, and Elective courses		9
	Hours	**15**
Spring		
Choices from "Pick Three" List to be taken JR/SR year. Spring choices typically include:		3
MMJ 3313	Multimedia Editing	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4573	Broadcast Documentary	
MMJ 4953	Advanced Production Practices	
MMJ 4970	Newscast Production	
MMJ 4393	Data Journalism (Must pass STAT first)	3
MC 4143	Ethics and Issues in Mass Communications	3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
MC 4163	Mass Communication Law	3
Major, College, "Pick Three" and Elective courses		12
	Hours	**15**
Spring		
MMJ 4973	Multimedia Journalism Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education, Humanities (H) or elective choices to meet upper-division general education requirements or the Global Cultural Competency (G) requirement.

Sports Media, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SPM major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
SPM 2843	Sports and the Media	3
Upper-division Professional Sequence		
Proficiency Review required		
MMJ 3153	Fundamentals of Video and Studio Production	3
SPM 3813	Sports Reporting for Multimedia	3
MMJ 4393	Data Journalism	3
SPM 3863	Advanced Sports Reporting for Multimedia	3
SPM 4883	Sports Media Capstone	3
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Select 9 hours from the following:		9
MMJ 3263	Multimedia Reporting	
MMJ 3313	Multimedia Editing	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4960	Live Production (3 hours, max 6)	
SPM 4053	Sports Announcing	
SPM 4813	Sports Media Production	
SPM 4833	Sports Information	
SPM 4853	Advanced Sports Writing	
Select 9 hours additional of MC-MMJ-SC-SPM (3 hours must be upper-division)		9
Select 6 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or Gen Ed		6
Hours Subtotal		**54**
Electives		
Select 4 hours - One hour may need to be upper-division.		4
May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department (see note 2.c.)		

MATH 1483 or MATH 1513 required if student does not place directly into STAT	
Hours Subtotal	**4**
Total Hours	**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education Courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SPM 2843	Sports and the Media (Fall only)	3
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
1713 First Semester Foreign Language		3
General Education courses		3
Note: MC 2003 and MC 2023 could be taken as late as junior fall if necessary.		
	Hours	**15**
Spring		
MMJ 3153	Fundamentals of Video and Studio Production	3
SPM 3813	Sports Reporting for Multimedia	3
1813 Second Semester Foreign Language		3
College or Elective courses or MMJ 3263 Multimedia Reporting from "Pick Three" List		6
Note: MMJ 3153 and SPM 3813 could be delayed until junior year if necessary.		
	Hours	**15**
Junior		
Fall		
SPM 3863	Advanced Sports Reporting for Multimedia (Fall only JR or SR year)	3
2000-level/Third Semester Foreign Language		3
Choice(s) from "Pick Three" List to be taken in JR and SR years. Fall options typically include:		3
SPM 4053	Sports Announcing	
SPM 4833	Sports Information	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4960	Live Production	
Major, College, or Elective courses		6
	Hours	**15**
Spring		
MMJ 4393	Data Journalism (must pass STAT first)	3
Choice(s) from "Pick Three" List to be taken in JR and SR years. Spring options typically include:		3
SPM 4813	Sports Media Production	
SPM 4853	Advanced Sports Writing (often Senior Year - requires MMJ 3263 first)	
MMJ 3263	Multimedia Reporting (good choice for sophomore or junior year)	
MMJ 3313	Multimedia Editing	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MC 4143	Ethics and Issues in Mass Communications	3
Major, College, or Elective courses		6
	Hours	**15**
Senior		
Fall		
MC 4163	Mass Communication Law	3
Major, College, "Pick Three" or Elective courses		12
	Hours	**15**
Spring		
SPM 4883	Sports Media Capstone (Spring only)	3
Major, College, or Elective courses		12
	Hours	**15**
	Total Hours	**120**

Sports Media, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SPM major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
SPM 2843	Sports and the Media	3
Upper-division Professional Sequence		
Proficiency Review required		
MMJ 3153	Fundamentals of Video and Studio Production	3
SPM 3813	Sports Reporting for Multimedia	3
MMJ 4393	Data Journalism	3
SPM 3863	Advanced Sports Reporting for Multimedia	3
SPM 4883	Sports Media Capstone	3
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Select 9 hours from the following:		9
MMJ 3263	Multimedia Reporting	
MMJ 3313	Multimedia Editing	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MMJ 4960	Live Production (3 hours, max 6)	
SPM 4053	Sports Announcing	
SPM 4813	Sports Media Production	
SPM 4833	Sports Information	
SPM 4853	Advanced Sports Writing	
Select 9 hours additional of MC-MMJ-SC-SPM (3 hours must be upper-division)		9
Select 6 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or Gen Ed		6
Hours Subtotal		**54**
Electives		
Select 13 hours - One hour may need to be upper-division.		13

May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department (see note 2.c.)	
MATH 1483 or MATH 1513 required for students not placing directly into STAT	
Hours Subtotal	**13**
Total Hours	**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
General Education courses		11
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SPM 2843	Sports and the Media (Fall only)	3
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
General Education courses		6
Start foreign language if requirement not met in high school.		
Note: MC 2003 and MC 2023 could be taken as late as junior fall if necessary.		
	Hours	**15**
Spring		
MMJ 3153	Fundamentals of Video and Studio Production	3
SPM 3813	Sports Reporting for Multimedia	3
College or Elective courses or MMJ 3263 Multimedia Reporting from “Pick Three” List		9
Note: MMJ 3153 and SPM 3813 could be delayed until junior year if necessary.		
	Hours	**15**
Junior		
Fall		
SPM 3863	Advanced Sports Reporting for Multimedia (Fall only JR or SR year)	3
Choices from "Pick Three" List to be taken in JR and SR years. Fall options typically include:		3
SPM 4053	Sports Announcing	
SPM 4833	Sports Information	
MMJ 3873	Podcast and Audio Production	
MMJ 3913	Multimedia Content Creation	
MMJ 4960	Live Production	
Major, College, or Elective courses		9
	Hours	**15**
Spring		
MMJ 4393	Data Journalism (must pass STAT first)	3
Choices from "Pick Three" List to be taken in JR and SR years. Spring options typically include:		3
SPM 4813	Sports Media Production	
SPM 4853	Advanced Sports Writing (often Senior Year - requires MMJ 3263 first)	
MMJ 3263	Multimedia Reporting (good choice for sophomore or junior year spring)	
MMJ 3313	Multimedia Editing	
MMJ 4433	Multimedia Feature Writing and Storytelling	
MC 4143	Ethics and Issues in Mass Communications	3
Major, College, or Elective courses		6
	Hours	**15**
Senior		
Fall		
MC 4163	Mass Communication Law	3
Major, College, "Pick Three" or Elective courses		12
	Hours	**15**
Spring		
SPM 4883	Sports Media Capstone (Spring only)	3
Major, College, or Elective courses		12
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education, Humanities (H) or elective choices to meet upper-division general education requirements or the Global Cultural Competency (G) requirement.

Strategic Communication: Advertising and Public Relations, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Courses designated (S)		3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		*9*
See note 2.a.		
Natural & Mathematical Sciences		*3*
See note 2.b.		
Foreign Language		*9*
See note 3.a.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SC major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Advertising & Public Relations		
SC 3383	Strategic Communications Management and Strategies	3
SC 3603	Creative Strategies	3
SC 4013	Media and Markets	3
Select 6 hours from the following:		6
SC 3050	Topics in Global Communication	
SC 3443	Social Media Playbook	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3693	Social Media Analytics	
SC 3783	Strategic Sport Communication	
SPM 3843	Contemporary Sports Issues	
SC 4053	Study Abroad: Strategic Messaging	
SC 4063	Creative Video for Digital Strategy	
SC 4603	Integrated Marketing Communication	
SC 4653	Influencers, Promotions and Placements	
SC 4940	Communication Competitions	

MC 4043	Media Study Abroad (G)	
Select 6 additional hours of MC, MMJ, SC or SPM		6
Select 3 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or General Education.		3
Hours Subtotal		**54**
Electives		
Select 4 hours - One hour may need to be upper-division.		4
May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**4**
Total Hours		**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
1713 First Semester Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
1813 Second Semester Foreign Language		3
College or Elective courses		9
SC 2183, MC 2003 and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3603 or SC 3383	Creative Strategies (Fall only) or Strategic Communications Management and Strategies	3
2000-level/Third Semester Foreign Language		3
Major, College, or Elective courses		3
Note: SC 3603 and SC 3383 can be taken JR or SR year in fall.		
	Hours	**15**
Spring		
SC 4013	Media and Markets (Spring only)	3
MC 4143	Ethics and Issues in Mass Communications	3
Upper-division SC or Media class from degree requirement list		3
Major, College, or Elective courses		6
	Hours	**15**
Senior		
Fall		
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SC 3383 or SC 3603	Strategic Communications Management and Strategies (Fall only) or Creative Strategies	3
SC 4493	Strategic Writing for Content Creation	3
MC 4163	Mass Communication Law	3
Major, College, or Elective courses		3
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Major, College, or Elective courses		9
	Hours	**15**
	Total Hours	**120**

Strategic Communication: Advertising and Public Relations, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Courses designated (S)		3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SC major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Advertising & Public Relations		
SC 3383	Strategic Communications Management and Strategies	3
SC 3603	Creative Strategies	3
SC 4013	Media and Markets	3
Select 6 hours from the following:		6
SC 3050	Topics in Global Communication	
SC 3443	Social Media Playbook	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3693	Social Media Analytics	
SC 3783	Strategic Sport Communication	
SPM 3843	Contemporary Sports Issues	
SC 4053	Study Abroad: Strategic Messaging	
SC 4063	Creative Video for Digital Strategy	
SC 4603	Integrated Marketing Communication	
SC 4653	Influencers, Promotions and Placements	
SC 4940	Communication Competitions	

MC 4043	Media Study Abroad (G)	
Select 6 additional hours of MC, MMJ, SC or SPM		6
Select 3 hours of upper-division Traditional Liberal Arts (A&S, AERO, AMIS, AMST, ANTH, ART, ASL, ASTR, BIOL, CDIS, CHEM, CHIN, CS, DANC, DIVR, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, GWST, HIST, JAPN, LATN, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, RUSS, SOC, SPAN, SPCH, STAT, TH) or Business or General Education		3
Hours Subtotal		**54**
Electives		
Select 13 hours - One hour may need to be upper-division.		13
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**13**
Total Hours		**120**

Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.

No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.

Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
General Education courses		9
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
College and Elective courses		12
Note: SC 2183, MC 2003, and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3603 or SC 3383	Creative Strategies (Fall only) or Strategic Communications Management and Strategies	3
Major, College, and Elective courses		6
Note: SC 3603 and SC 3383 can be taken JR or SR year in fall.		
	Hours	**15**
Spring		
SC 4013	Media and Markets (Spring only)	3
MC 4143	Ethics and Issues in Mass Communications	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SC 3383 or SC 3603	Strategic Communications Management and Strategies (Fall only) or Creative Strategies	3
SC 4493	Strategic Writing for Content Creation	3
MC 4163	Mass Communication Law	3
Major, College, and Elective courses		3
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Strategic Communication: Social Media, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G) or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
9 hours. See note 3.		9
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SC major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Social Media		
SC 3443	Social Media Playbook	3
SC 3693	Social Media Analytics	3
SC 4063	Creative Video for Digital Strategy	3
Select 6 hours from:		6
SC 3050	Topics in Global Communication	
SC 3383	Strategic Communications Management and Strategies	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3603	Creative Strategies	
SC 3783	Strategic Sport Communication	
SPM 3843	Contemporary Sports Issues	
SC 4013	Media and Markets	
MC 4043	Media Study Abroad (G)	
SC 4053	Study Abroad: Strategic Messaging	
SC 4603	Integrated Marketing Communication	
SC 4653	Influencers, Promotions and Placements	

SC 4940	Communication Competitions	
Select 6 additional hours of MC, MMJ, SC or SPM		6
Select 3 hours of upper-division MKTG.		3
Hours Subtotal		**54**
Electives		
Select 4 hours - One hour may need to be upper-division.		4
May need to include 6 hours upper-division general education or CAS courses outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**4**
Total Hours		**120**

Strategic Communications Requirements

- Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.
- No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.
- Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
1713 First Semester Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
SC 2183, MC 2003, and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
2000-level/Third Semester Foreign Language		3
Upper-division MKTG course		3
Major, College, and Elective courses		3
	Hours	**15**
Spring		
SC 3443	Social Media Playbook (Spring only)	3
SC 4493	Strategic Writing for Content Creation	3
MC 4143	Ethics and Issues in Mass Communications	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		3
	Hours	**15**
Senior		
Fall		
SC 3693	Social Media Analytics (Fall only)	3
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SC 4063	Creative Video for Digital Strategy (Fall only)	3
MC 4163	Mass Communication Law	3
Related Major and Elective courses		3
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Strategic Communication: Social Media, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		*3*
See note 2.a.		
Natural & Mathematical Sciences		*9*
See note 2.b.		
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SC major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Social Media		
SC 3443	Social Media Playbook	3
SC 3693	Social Media Analytics	3
SC 4063	Creative Video for Digital Strategy	3
Select 6 hours from:		6
SC 3050	Topics in Global Communication	
SC 3383	Strategic Communications Management and Strategies	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3603	Creative Strategies	
SC 3783	Strategic Sport Communication	
SPM 3843	Contemporary Sports Issues	
SC 4013	Media and Markets	
MC 4043	Media Study Abroad (G)	
SC 4053	Study Abroad: Strategic Messaging	
SC 4603	Integrated Marketing Communication	
SC 4653	Influencers, Promotions and Placements	

SC 4940	Communication Competitions	
Select 6 additional hours of MC, MMJ, SC or SPM.		6
Select 3 hours of upper-division MKTG.		3
Hours Subtotal		**54**
Electives		
Select 13 hours - One hour may need to be upper-division.		13
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**13**
Total Hours		**120**

Strategic Communications Requirements

- Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.
- No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.
- Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
General Education courses		9
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
College and Elective courses		12
SC 2183, MC 2003, and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
Upper-division MKTG course		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
SC 3443	Social Media Playbook (Spring only)	3
SC 4493	Strategic Writing for Content Creation	3
MC 4143	Ethics and Issues in Mass Communications	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		3
	Hours	**15**
Senior		
Fall		
SC 3693	Social Media Analytics (Fall only)	3
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SC 4063	Creative Video for Digital Strategy (Fall only)	3
MC 4163	Mass Communication Law	3
Major Related Electives courses		3
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Strategic Communication: Sport Communication, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Courses Designated (S)		3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3.a.		9
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared Strategic Communication major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Sport Communication		
SPM 3843	Contemporary Sports Issues	3
SC 3783	Strategic Sport Communication	3
SPM 4833	Sports Information	3
Select 6 hours from:		6
SC 3050	Topics in Global Communication	
SC 3383	Strategic Communications Management and Strategies	
SC 3443	Social Media Playbook	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3603	Creative Strategies	
SC 3693	Social Media Analytics	
SC 4013	Media and Markets	
MC 4043	Media Study Abroad (G)	
SC 4053	Study Abroad: Strategic Messaging	
SC 4063	Creative Video for Digital Strategy	
SC 4603	Integrated Marketing Communication	

SC 4653	Influencers, Promotions and Placements	
SC 4940	Communication Competitions	
Select 6 additional hours of MC, MMJ, SC or SPM		6
Select 3 hours from the following:		3
AMST 3723	Cultural History of American Sports (DH)	
ECON 3723	The Economics of Sport	
GEOG 4213	Sport, Place and Society (S)	
MGMT 3943	Sports Management	
MGMT 3963	Social Issues in Sports Management	
MGMT 4943	International Sports Management (G)	
MKTG 3713	Sports Marketing	
POLS 3973	Race, Politics and Sports (D)	
SOC 3153	Sociology of Sport (S)	
Hours Subtotal		**54**
Electives		
Select 4 hours - One hour may need to be upper-division.		4
May need to include 6 hours upper-division general education or College of Arts and Sciences courses outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly in STAT.		
Hours Subtotal		**4**
Total Hours		**120**

Strategic Communications Requirements

- Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.
- A minimum of 72 hours must be taken outside of MC-MMJ-SC-SPM.No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.
- Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
1713 First Semester Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
Note: SC 2183, MC 2003, and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
Upper-division SC or Media class from degree requirement list		3
2000-level/Third Semester Foreign Language		3
Major, College, and Elective courses		3
	Hours	**15**
Spring		
SC 3783	Strategic Sport Communication (Spring only)	3
SPM 3843	Contemporary Sports Issues (Spring only JR or SR year)	3
SC 4493	Strategic Writing for Content Creation	3
MC 4143	Ethics and Issues in Mass Communications	3
Major, College, and Elective courses		3
	Hours	**15**
Senior		
Fall		
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SPM 4833	Sports Information (Fall only)	3
MC 4163	Mass Communication Law	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Upper-division sports-related class from degree requirement list		3
Major, College, and Elective courses		6
	Hours	**15**
	Total Hours	**120**

Strategic Communication: Sport Communication, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Analytical & Quantitative Thought (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Courses designated (S)		3
Diversity (D)		
MC 1143	Media in a Diverse Society (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		*3*
See note 2.a.		
Natural & Mathematical Sciences		*9*
See note 2.b.		
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA. Minimum grade of "C" in all MC-MMJ-SC-SPM prefix courses.		
Lower-division Professional Sequence		
2.75 GPA, 24 earned credit hours and declared SC major required to take the following classes:		
MC 2003	Mass Media Style and Structure	3
MC 2023	Digital Media Essentials	3
or SC 2083	Digital Communication for Strategic Communication	
SC 2183	Introduction to Strategic Communications	3
Upper-Division Professional Sequence		
Proficiency Review required to take courses below:		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
SC 3953	Research Methods for Strategic Communicators	3
SC 4493	Strategic Writing for Content Creation	3
SC 4843	Strategic Communication Campaigns	3
or SC 4980	Advertising Competitions	
MC 4143	Ethics and Issues in Mass Communications	3
MC 4163	Mass Communication Law	3
Sport Communication		
SC 3783	Strategic Sport Communication	3
SPM 3843	Contemporary Sports Issues	3
SPM 4833	Sports Information	3
Select 6 hours from:		6
SC 3050	Topics in Global Communication	
SC 3383	Strategic Communications Management and Strategies	
SC 3443	Social Media Playbook	
SC 3463	Event Planning and Communication	
SC 3483	Nonprofit Communications	
SC 3600	Strategic Communications Internship	
SC 3603	Creative Strategies	
SC 3693	Social Media Analytics	
SC 4013	Media and Markets	
MC 4043	Media Study Abroad (G)	
SC 4053	Study Abroad: Strategic Messaging	
SC 4063	Creative Video for Digital Strategy	
SC 4603	Integrated Marketing Communication	

SC 4653	Influencers, Promotions and Placements	
SC 4940	Communication Competitions	
Select 6 additional hours of MC, MMJ, SC, or SPM		6
Select 3 hours from:		3
AMST 3723	Cultural History of American Sports (DH)	
ECON 3723	The Economics of Sport	
GEOG 4213	Sport, Place and Society (S)	
MGMT 3943	Sports Management	
MGMT 3963	Social Issues in Sports Management	
MGMT 4943	International Sports Management (G)	
MKTG 3713	Sports Marketing	
POLS 3973	Race, Politics and Sports (D)	
SOC 3153	Sociology of Sport (S)	
Hours Subtotal		**54**
Electives		
May need to include 6 hours of a foreign language. See note 3.		
Select 13 hours - One hour may need to be upper-division.		13
May need to include 6 hours of upper-division general education outside major department. See note 2.c.		
MATH 1483 or MATH 1513 required for students who do not place directly into STAT.		
Hours Subtotal		**13**
Total Hours		**120**

Strategic Communications Requirements

- Passing the proficiency review is required for upper-division major requirements. This includes a 2.75 graduation retention GPA, and at least 12 OSU hours earned, and a 2.75 OSU GPA, and a passing score on the Language Proficiency Exam.
- No more than 12 hours in MC-MMJ-SC-SPM can be transferred from other institutions.
- Students are required to develop and maintain a portfolio exhibiting specific and appropriate work including required class assignments.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.50 GPA in all MC-MMJ-SC-SPM prefix courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department. This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Other Content

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2030.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
STAT 2013 is required for this degree. Students who do not place directly into statistics should discuss alternate math-prefixed courses with their advisor in order to qualify to take STAT 2013 next.		
General Education courses		11
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
STAT 2013 or STAT 2053 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q) or Elementary Statistics for Business and Economics (Q)	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
SC 2183	Introduction to Strategic Communications	3
MC 2003 or MC 2023	Mass Media Style and Structure or Digital Media Essentials	3
General Education courses		9
	Hours	**15**
Spring		
MC 2023 or MC 2003	Digital Media Essentials or Mass Media Style and Structure	3
College and Elective courses		12
Note: MC 2003 and MC 2023 can be taken as late as junior fall.		
	Hours	**15**
Junior		
Fall		
SC 3353	Persuasive Writing for Strategic Communicators	3
SC 3753	Graphic Design for Strategic Communication	3
Upper-division SC or Media class from degree requirement list		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
SC 3783	Strategic Sport Communication (Spring only)	3
SPM 3843	Contemporary Sports Issues (Spring only JR or SR year)	3
SC 4493	Strategic Writing for Content Creation	3
MC 4143	Ethics and Issues in Mass Communications	3
Major, College, and Elective courses		3
	Hours	**15**
Senior		
Fall		
SC 3953	Research Methods for Strategic Communicators (Must pass STAT first)	3
SPM 4833	Sports Information (Fall Only)	3
MC 4163	Mass Communication Law	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
SC 4843 or SC 4980	Strategic Communication Campaigns or Advertising Competitions	3
Upper-division SC or Media class from degree requirement list		3
Upper-division sports-related class from degree requirement list		3
Major, College, and Elective courses		6
	Hours	**15**
	Total Hours	**120**

Microbiology and Molecular Genetics

Microbiology/Cell and Molecular Biology

Microbiology is the hands-on study of bacteria, viruses, fungi and algae and their many relationships to humans, animals, plants and the environment. Cell and molecular biology bridges the fields of chemistry, biochemistry and biology as it seeks to understand life and cellular processes at the molecular level. Microbiologists apply their knowledge to infectious diseases and pathogenic mechanisms; food production and preservation, industrial fermentations which produce chemicals, drugs, antibiotics, alcoholic beverages and various food products; biodegradation of toxic chemicals and other materials present in the environment; insect pathology; the exciting and expanding field of biotechnology which endeavors to utilize living organisms to solve important problems in medicine, agriculture, and environmental science; infectious diseases; and public health and sanitation.

Microbes live in every imaginable habitat. They generate two-thirds of the oxygen in our atmosphere, drive the geochemical cycles that make life on Earth sustainable and are the basis of every food web. As model organisms used for basic research, microbes have contributed more than any other organisms to the current knowledge of genetics at the molecular level and genomics.

In contrast to the enormous benefits derived from some microbes, other microorganisms and viruses are the causative agents of infectious disease and hence have a devastating impact on humanity. These pathogens are the subjects of research into the mechanisms of infections, with the ultimate goal of combating or preventing diseases.

Departmental courses are designed to provide comprehensive training and the skills required for working with microorganisms in a professional setting, as well as a broad understanding of all aspects of microbial life. The lecture courses are taught by tenured faculty members and the laboratory courses are designed to integrate classroom learning with hands-on research experience.

Opportunities for employment exist at all scholarly levels, in many local, state and national agencies and industry. The record for employment of microbiologists has been excellent for many years and with the increased interest in biotechnology, medicine and the human microbiome, employment opportunities look even brighter for the future.

Microbiology is the strongest possible foundation for students who wish to go to medical, dental, veterinary or graduate schools. We take pride in offering research and internship opportunities that prepare students for careers in the biomedical sciences. Our graduates find jobs in medicine, health care, medical laboratories, teaching, research, industry and government.

Medical Laboratory Science Option

This option is designed to give students the broad general education and the technical skills that are required for a successful career in medical laboratory science (MLS). The minimum requirement for the BS degree in Microbiology/Cell and Molecular Biology with the (MLS) option is three years of university work that includes general chemistry, organic chemistry, biochemistry, immunology, genetics, anatomy & physiology, physics, upper-division courses in microbiology, and one year of clinical laboratory education (internship).

For certification and completion of the BS degree, students will take one year of clinical internship in program accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS) and affiliated with Oklahoma State University. Students have the options of the following hospitals/programs: Comanche County Memorial Hospital, Lawton, OK; St. Francis Hospital, Tulsa, OK; Mercy Hospital, Ada, OK; Mercy Hospital, Ardmore, OK.

Medical Laboratory Science is unique in allowing students to enter the health profession directly after obtaining a BS degree. Clinical laboratory scientists comprise the third-largest segment of the healthcare professions and are an important member of the healthcare team, working alongside doctors and nurses. Students who complete Microbiology/Cell and Molecular Biology with the MLS option enjoy a 100% employment rate upon graduation.

Courses

GENE 5102 Molecular Genetics
Prerequisites: BIOC 3653 or MICR 3033 and one course in genetics or consent of instructor.
Description: An introduction to molecular genetics on the graduate level.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Graduate College

MICR 1211 First Year Microbiology Laboratory Experience
Prerequisites: MCMB major and concurrent enrollment in A&S 1111.
Description: This laboratory course is designed for First Year majors to experience microbiology in parallel with A&S 1111. Students will apply pure culture technique to obtain and characterize environmental isolates. Students also will learn light microscopy skills, anaerobic culture technique, and molecular biology skills.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 1513 Inquiry-Based Biology
Description: Directed inquiry and hands-on study of biological principles. Restricted to elementary education majors or related fields as model course to learn and teach science.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 2123 Introduction to Microbiology
Prerequisites: Grade of "C" or better in BIOL 1114 or (BIOL 1113 and BIOL 1111) and either CHEM 1215 or CHEM 1314 or CHEM 1414 with a grade of "C" or better or concurrent enrollment in one.
Description: General principles of the biology of microorganisms, including bacteria, viruses, algae, fungi, protozoa and archaea. Course previously offered as MICR 2125.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 2132 Introduction to Microbiology Laboratory
Prerequisites: MICR 2123 or concurrent enrollment.
Description: Laboratory safety, aseptic technique, microscopy, staining and culture techniques, collection of microbial samples, isolation and identification of microorganisms, microbial growth and basic principles of metabolism, environmental microbiology, other discipline specific laboratory skills.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 2153 Emerging Infectious Agents (N)
Description: Overview of pandemics and plagues that have impacted human health. Course covers the historical aspects of how pandemics arose, how society was impacted and how science, medicine, and society responded to the outbreaks. Previously offered as MICR 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 2890 Honors Experience in Microbiology
Prerequisites: Honors Program participation and concurrent enrollment in a designated MICR course.
Description: A supplemental Honors experience in Microbiology to partner concurrently with designated MICR 2123 and/or MICR 2132 course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 3033 Cell and Molecular Biology
Prerequisites: (MICR 2123 with "C" or better) or (PBIO 1404 or BIOL 1604 and CHEM 1225 or CHEM 1414 or CHEM 1515 or equivalent with a grade of "C" or better).
Description: The cell concept and cell morphology, cell macromolecules, organelles, enzymes, energetics, movement of water and materials across membranes, influence of external environment, cellular synthesis, growth and maintenance, control and integration of function, replication, differentiation, origin, and evolution of cells. Course previously offered as CLML 3014, BIOL 3014, and BISC 3014.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3053 Synthetic Biology
Prerequisites: BIOL 1113 and CHEM 1515
Description: Engineering of living systems at the molecular, cellular, and organismal levels: Origin of cellular life; reading and writing DNA; enzyme evolution; metabolic engineering. Applications to current and future biotechnologies in agriculture and medicine: Food and drug synthesis; biofuels; vaccines. This cross-listed course is designed to satisfy upper division elective requirements for students majoring in biochemistry or microbiology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3103 Microbes: Friends or Foes (N)
Description: Explores the impact of microorganisms on human life, the environment, and world history. This course is designed for non-science majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 3143 Medical Mycology
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Examination of fungi as animal pathogens; laboratory techniques used in the identification of human and animal pathogens, and differentiation from common contaminants.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 3154 Food Microbiology
Prerequisites: Minimum grade of "C" in (MICR 2123 and MICR 2132) and (CHEM 3013 or CHEM 3053).
Description: Relationship of microorganisms to food manufacture and preservation, to food spoilage and microbial food poisoning and to various aspects of primary food production. Same course as FDSC 3154. Course previously offered as ANSI 3154.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 3162 Synthetic Biology Laboratory Course
Prerequisites: BIOL 1113 and CHEM 1515
Description: Computer and laboratory exercises to introduce students with a wide range of biology experience to the practical principles of synthetic biology. Students learn the design of genetic circuits and CRISPR-Cas systems and create & test these designs in the laboratory using industry-standard molecular biology techniques. Same course as BIOC 3162. Students are strongly encouraged to co-enroll in BIOC/MICR3153 using the appropriate prefix according to their major.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 3213 My Genome: The DNA Revolution and what it means for you (N)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 3223 Advanced Microbiology
Prerequisites: Concurrent enrollment or completion of CHEM 3013 or CHEM 3053 and minimum grade of "C" in MICR 2123 and MICR 2132.
Description: Subcellular structure and function of microorganisms. Synthesis, translocation, and metabolism of cellular macromolecular constituents. Substrate transport and metabolism. Course previously offered as MICR 3224 and MICR 4224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3253 Immunology
Prerequisites: MICR 2123 and MICR 2132 and MICR 3033 or BIOC 3653 or BIOC 3713.
Description: Vertebrate host's ability to defend itself against foreign intrusion. Chemistry and biology of the acquired immune response. Course previously offered as MICR 3254 and CLML 3254.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3333 Science Writing for a Broad Audience
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Students will write three documents and will review texts on related topics written by other students in the course. The scientific topics for these texts will be selected by the students. Each of the three texts will be designed for a different audience: undergraduate students in the same major; high school students, and the general public. These texts will illustrate the scientific inquiry process, scientific methods, results and interpretation of scientific evidence, and relevance to society. Students will receive instructions on how to write, revise, and review these texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 3553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1414 or CHEM 1515.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer progression/diagnosis, cancer treatments, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers; also, for cancer patients/relatives/caregivers, as well as for those interested in knowledge of cancer. Same course as PHYS 3553. Previously offered as MICR 3233. May not be used for degree credit with MICR 5553, PHYS 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 3890 Advanced Honors Experience in Microbiology
Prerequisites: Honors Program participation and concurrent enrollment in a designated MICR course.
Description: A supplemental Honors experience in microbiology to partner concurrently with designated upper-division MICR course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 4000 Honors in Microbiology
Prerequisites: Consent of departmental honors committee.
Description: Supervised study and research in microbiology. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 4001 Professional Transitions in Microbiology and Cell and Molecular Biology
Prerequisites: MICR 2123 or MICR 2132.
Description: Understanding major areas and employment activities in microbiology, cell biology and molecular biology fields. Evaluating and understanding scientific and professional literature, and making the transition from undergraduate education to postgraduate education or employment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4003 Brewing Microbiology (N)
Description: Brewing Microbiology is about the science behind beer brewing. Students will learn about the microbiology of yeast (including growth, metabolism, aseptic technique and contamination), biology of grain, biochemistry of malted barley, chemistry of water, preservative nature of hops, and the human physiology of taste and smell. There are no prerequisites for this course, although high school or freshman level biology and chemistry is helpful.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Natural Science Reasoning

MICR 4012 Molecular Microbiology Laboratory I
Prerequisites: MICR 3033 or MICR 3223.
Description: Emphasis on good laboratory practices in microbiology and molecular biology; isolation and enumeration of microorganisms; physiological, biochemical, and molecular characterization of aerobic and anaerobic microorganisms. May not be used for degree credit with MICR 5012. Course previously offered as CLML 4012.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4013 Microbial Diversity, Ecology, and Evolution
Prerequisites: MICR 2123 and BIOL 3023.
Description: This course covers the fundamentals of ecology and evolution as they pertain to microbes, while also emphasizing the extensive diversity of the microbial world. Students in this course will receive instruction in the underlying principles of phylogenetics and microbial phylogeny, of microbe-microbe, microbe-host, and microbe-environment interactions, and of key principles of evolutionary theory as they apply to microbes. May not be used for degree credit with MICR 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4023 Microbiomes in Human Health and the Environment
Prerequisites: MICR 2123, MICR 2132, and MICR 3033.
Description: This course covers the changing landscape in the molecular diversity of microbial communities, their interactions with biotic and abiotic entities, and how changes in microbiomes impact the health of living organisms and the environment. The main topics of this course include: microbes and microbial interactions; genomes and metagenomes; microbiome structure and function (alpha and beta diversity, phylogenetic trees); human microbiomes (gut, skin, oral) and their role in health; the microbiomes of soil, water and sediments; and the role of microbiomes in ecosystem function. Environmental microbiome effects on the human microbiome. May not be used for degree credit with MICRO 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4052 Pathogenic Microbiology Lab
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Overview of laboratory approaches and techniques for the study, characterization, and identification of bacteria involved in pathogenesis.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4053 Pathogenic Microbiology
Prerequisites: MICR 2123 and MICR 2132 with a grade of "C" or better.
Description: Survey of pathogenic bacteria and the diseases they cause as they relate to humans and animals. Morphology, physiology, and pathogenic mechanisms of a specific bacterial pathogens. May not be used for degree credit with MICR 5053. Course previously offered as MICR 4134 and MICR 3134.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4112 Molecular Microbiology Capstone
Prerequisites: MICR 4012 with a grade of "C" or better.
Description: Continuation of MICR 4012. Molecular characterization of prokaryotic and eukaryotic microorganisms utilizing nucleic acids, proteins, cell fractionation, cytology, and antigen-antibody reactions. Same course as MICR 5112.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 4117 Clinical Microbiology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except 30 hours clinical laboratory science.
Description: The theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites. Includes isolation, identification, antimicrobial susceptibility testing, and medical significance. Course previously offered as CLLS 4117 and MTCL 4117.
Credit hours: 7
Contact hours: Contact: 14 Other: 14
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4123 Virology
Prerequisites: MICR 2123 and (BIOL 3023 or MICR 3033 or BIOC 3653)
Description: Fundamental concepts of virology. Covers virus diversity & evolution, virus structure, infection & immune responses, vaccines & virus technology as well as virus discovery, emergence and epidemiology. Both eukaryotic and prokaryotic viruses (bacteriophages) will be discussed. May not be used for degree credit with MICR 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4125 Clinical Chemistry I
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: The theory and laboratory methodology of analytical biochemistry, clinical microscopy, routine and special procedures, and medical significance. Course previously offered as CLLS 4125 and MTCL 4125.
Credit hours: 5
Contact hours: Contact: 10 Other: 10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4163 Foundations of Cellular Life
Prerequisites: MICR 3033 or permission from instructor.
Description: This class will provide an in-depth introduction into fundamental principles that apply to any microorganism and will provide an intellectual framework to understand all cells. The fundamentals discussed will be illustrated through a combination of classical and recent scientific breakthroughs. It will provide a solid, deep foundation for a successful academic career in microbiology. May not be used for degree credit with MICR 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4203 Bioinformatics
Prerequisites: MICR 3033 or BIOC 3653 or equivalent.
Description: Fundamental concepts of biological sequence information and inferential techniques to assign structure, function, and evolutionary relationship among genes and proteins. No prior programming necessary, but familiarity with computers assumed. No credit for students with credit in MICR 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4233 Advanced Cell and Molecular Biology
Prerequisites: MICR 3033 with a grade of "C" or better.
Description: Advanced topics in cell and molecular biology including regulatory mechanisms of gene expression, protein function, cell structure and organization, cell division, and development. May not be used for degree credit with MICR 5233. Course previously offered as CLML 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4236 Clinical Hematology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours of clinical laboratory science.
Description: Systematized study of diseases, cell maturation and function, principles of hemostasis; methodology used in routine and special hematology studies; and correlation of hematological findings with physiological conditions. Course previously offered as CLLS 4236 and MTCL 4236.
Credit hours: 6
Contact hours: Contact: 12 Other: 12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4246 Clinical Immunology
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: Immunologic responses and procedures used in serological determinations; immunohematology, fundamentals of antigen-antibody reactions, blood groups and types, compatibility testing, blood components, and the lab methods used as they relate to the medical significance of immunology and infectious diseases. Course previously offered as CLLS 4246 and MTCL 4246.
Credit hours: 6
Contact hours: Contact: 12 Other: 12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4253 Concepts in Medical Genetics
Prerequisites: BIOL 3023.
Description: Application of genetic principles in the study of human diseases, including the inheritance, molecular mechanisms, detection, characterization, and discovery of human genes. No credit for students with credit in MICR 5253. Course previously offered as CLML 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4263 Microbial Genetics: from Genes to Genomes
Prerequisites: MICR 3033 with a grade of "C" or better.
Description: Integration of genetics and genomics principles, the basic processes of gene transmission, molecular biology of gene expression and evolutionary genetics by gaining social and historical context in which genetics are developed. Participants are expected to comprehend the dramatic change in our understanding of genetics and the role such information has in our view of disability and disease. May not be used for degree credit with MICR 5263. Course previously offered as CLML 4263 and CLML 4264.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 4313 GeoMicrobiology
Description: Microbes have altered Earth's landscape over the past 3.5 billion years driving biogeochemical cycles and are still shaping our planet's surface. This course explores how microbes control geochemical processes and how geochemistry influences microbes. Course topics will cover microbe-mineral interactions, extremophiles, redox-geochemistry, enhanced oil and gas recovery, microbial metabolism and the diversity of microbial lifestyles. Students will gain an overview of methods used for the detection and identification of microorganisms in geological materials. This course is a journey along deep-sea sediments, hydrothermal systems, oil and gas reservoirs, agricultural soils, caves, Mars and many more. May not be used for degree credit with MICR 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4323 Cellular Energy Metabolism
Prerequisites: MICR 3033 or BIOC 3653.
Description: An exploration of the principals and mechanisms of energy utilization and transformation in animals, plants, and microbial systems. The course covers a range of topics from basic molecular mechanisms to recent advances in understanding energy flow in whole organisms. It includes new insights into the nanomachines involved in cell movement as well current genome-enabled approaches to understanding cellular energy metabolism. May not be used for degree credit with MICR 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4325 Clinical Chemistry II
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: The theory and laboratory methodology of analytical biochemistry, instrumentation, lab mathematics, routine and special procedures and medical significance. Course previously offered as CLLS 4325 and MTCL 4325.
Credit hours: 5
Contact hours: Contact: 10 Other: 10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4351 Topics in Clinical Laboratory Science
Prerequisites: Concurrent internship in affiliated hospital and all degree requirements for BS in microbiology except for 30 hours clinical laboratory science.
Description: Principles and practices of the medical laboratory including basic management, quality assurance, education methodology, computer applications, laboratory safety, and special projects in selected areas. Course previously offered as CLLS 4351 and MTCL 4351.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4423 Antibiotics and Antibiotic Resistance
Prerequisites: MICR 2123.
Description: This course begins with a basic history of antibiotics, including their discovery and industrial development. It covers the major classes of antibiotics, their structures and mechanisms of action, and the mechanisms by which bacteria become resistant to antibiotics. Also covered are industrial and commercial considerations, antibiotic stewardship, current challenges, and future prospects for antibiotic discovery and use. Same course as MICR 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, microcontrollers, spectrophotometers, centrifuges, chromatography, thermocyclers, and DNA sequencers. May not be used for degree credit with BIOL 5524, MICR 5524, PBIO 5524. Same course as BIOL 4524 and PBIO 4524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 4531 Chemical Biology
Prerequisites: CHEM 3053, MICR 3112, MICR 3153.
Description: Chemistry explains many properties of biological macromolecules and also provides research tools to study these molecules. This course will examine how both of these aspects help explain the molecular processes at the basis of life, and will cover (1) basic knowledge of chemistry needed to understand life, (2) chemical reactions as they occur in the cell, (3) chemical methods that are valuable to research in the life sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4543 Microbial Genomics and Bioinformatics
Prerequisites: MICR 2123; MICR 3033 or MICR 3223 or equivalents.
Description: Basic approaches and strategies for microbial genome analysis, and hands-on training on the subject. May not be used for degree credit with MICR 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 4990 Special Problems
Prerequisites: Consent of instructor.
Description: Investigations in the field of microbiology. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A research project under the direction of a faculty member resulting in a written report to be judged by a second faculty member as well. Required for graduation with departmental honors in microbiology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen
General Education and other Course Attributes: Honors Credit

MICR 5000 Thesis
Prerequisites: Consent of major professor.
Description: A student studying for the M.S. degree enrolls in this course for six hours credit. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 5002 Professionalism for the Microbiologist
Prerequisites: Microbiology graduate student or permission of instructor.
Description: Introduces the microbiology graduate student to the standards of the microbiology professional and to basic skills in communication and data retrieval needed by all microbiologists. It is required of all and limited to MS and PhD students in Microbiology & Molecular Genetics. Course previously offered as MICR 5001.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5012 Molecular Microbiology Laboratory I
Prerequisites: MICR 3223, MICR 4233.
Description: Emphasis on good laboratory practices in microbiology and molecular biology; isolation and enumeration of microorganisms; physiological, biochemical, and molecular characterization of aerobic and anaerobic microorganisms. Must be taken in conjunction with MICR 5112 the following semester. No credit for students with credit in MICR 4012.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5013 Microbial Diversity, Ecology, and Evolution
Prerequisites: MICR 2123 and BIOL 3023.
Description: This course covers the fundamentals of ecology and evolution as they pertain to microbes, while also emphasizing the extensive diversity of the microbial world. Students in this course will receive instruction in the underlying principles of phylogenetics and microbial phylogeny, of microbe-microbe, microbe-host, and microbe-environment interactions, and of key principles of evolutionary theory as they apply to microbes. No credit for students with credit in MICR 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5023 Microbiomes in Human Health and the Environment
Description: This course covers the changing landscape in the molecular diversity of microbial communities, their interactions with biotic and abiotic entities, and how changes in microbiomes impact the health of living organisms and the environment. The main topics of this course include: microbes and microbial interactions; genomes and metagenomes; microbiome structure and function (alpha and beta diversity, phylogenetic trees); human microbiomes (gut, skin, oral) and their role in health; the microbiomes of soil, water, and sediments; and the role of microbiomes in ecosystem function. Environmental mircobiome effects on the human microbiome. May not be used for degree credit with MICR 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5052 Techniques In Molecular Biolog
Prerequisites: Graduate student and permission of instructor.
Description: Provides the basic skills for scientific thinking and analysis in molecular microbiological research.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5053 Pathogenic Microbiology
Prerequisites: MICR 2123 and MICR 2132. Co-requisite(s): MICR 3223.
Description: Survey of pathogenic bacteria and the diseases they cause as they relate to humans and animals. Morphology, physiology, and pathogenic mechanisms of specific bacterial pathogens. May not be used for degree credit with MICR 4053. Course previously offered as MICR 5134.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5112 Molecular Microbiology Capstone
Prerequisites: MICR 5012.
Description: Continuation of MICR 5012. Molecular characterization of prokaryotic and eukaryotic microorganisms utilizing nucleic acids, proteins, cell fractionation, cytology, and antigen-antibody reactions. No credit for students with credit in MICR 4112.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5113 Advanced Immunology
Description: Advanced studies with emphasis on the regulation of vertebrate immune responses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5123 Virology
Prerequisites: MICR 2123 and (BIOL 3023 or MICR 3033 or BIOC 3653)
Description: Fundamental concepts of virology. Covers virus diversity & evolution, virus structure, infection & immune responses, vaccines & virus technology as well as virus discovery, emergency and epidemiology. Both eukaryotic and prokaryotic viruses (bacteriophages) will be discussed. No credit for students with credit in MICR 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5142 Techniques in Molecular Biology
Prerequisites: Consent of instructor.
Description: Comprehensive laboratory course in research techniques involving classical genetics and molecular biology. Course previously offered as MICR 4142.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Graduate
Schedule types: Lab
Department/School: Microbiology & Mol Gen

MICR 5153 Emerging Infectious Agents
Prerequisites: MICR 4123 or MICR 4134 or consent of instructor.
Description: An in-depth discussion of the importance of emerging infectious agents, the molecular basis for their emergence, and the broad spectrum of host-microbe interactions favoring the evolution of new infectious agents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5160 Seminar
Prerequisites: Consent of instructor.
Description: Required of and limited to all MS and PhD students majoring in microbiology, cell and molecular biology. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 5163 Foundations of Cellular Life
Prerequisites: OSU graduate student or permission of instructor.
Description: This class will provide an in-depth introduction into fundamental principles that apply to any microorganism and will provide an intellectual framework to understand all cells. The fundamentals discussed will be illustrated through a combination of classical and recent scientific breakthroughs. It will provide a solid, deep foundation for a successful academic career in microbiology. Previously offered as MICR 6163. May not be used for degree credit with MICR 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5203 Bioinformatics
Prerequisites: MICR 3033 or BIOC 3653 or equivalent.
Description: Fundamental concepts of biological sequence information and inferential techniques to assign structure, function, and evolutionary relationship among genes and proteins. No prior programming necessary, but familiarity with computer desktop assumed. No credit for students with credit in MICR 4203. Course previously offered as CLML 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5233 Advanced Cell and Molecular Biology
Prerequisites: MICR 3033.
Description: Advanced topics in cell and molecular biology including regulatory mechanisms of gene expression, protein function, cell structure and organization, cell division, and development. No credit for students with credit in MICR 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5253 Concepts in Medical Genetics
Prerequisites: BIOL 3023.
Description: Application of genetic principles in the study of human diseases, including the inheritance, molecular mechanisms, detection, characterization, and discovery of human genes. No credit for students with credit in MICR 4253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5263 Microbial Genetics: from Genes to Genomes
Description: Integration of genetics and genomics principles, the basic processes of gene transmission, molecular biology of gene expression and evolutionary genetics by gaining social and historical context in which genetics are developed. Participants are expected to comprehend the dramatic change in our understanding of genetics and the role such information has in our view of disability and disease. May not be used for degree credit with MICR 4263.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5273 Advanced Principles of Microbial Pathogenesis
Description: Advanced study of the pathogenic mechanisms used by microbial pathogens to cause disease. Principles of pathogen and pathogen-host interactions that lead to disease pathology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5313 GeoMicrobiology
Description: Microbes have altered Earth's landscape over the past 3.5 billion years driving biogeochemical cycles and are still shaping our planet's surface. This course explores how microbes control geochemical processes and how geochemistry influences microbes. Course topics will cover microbe-mineral interactions, extremophiles, redox-geochemistry, enhanced oil and gas recovery, microbial metabolism and the diversity of microbial lifestyles. Students will gain an overview of methods used for the detection and identification of microorganisms in geological materials. This course is a journey along deep-sea sediments, hydrothermal systems, oil and gas reservoirs, agricultural soils, caves, Mars and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5323 Cellular Energy Metabolism
Prerequisites: MICR 3033 or BIOC 3653.
Description: An exploration of the principals and mechanisms of energy utilization and transformation in animals, plants, and microbial systems. The course covers a range of topics from basic molecular mechanisms to recent advances in understanding energy flow in whole organisms. It includes new insights into the nanomachines involved in cell movement as well current genome-enabled approaches to understanding cellular energy metabolism. May not be used for degree credit with MICR 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5333 Controversies in Vaccinology
Prerequisites: OSU graduate student status or permission of instructor.
Description: Public misconceptions about science abound, however, these misconceptions have a major impact on perception of research and public policy. Examples of themes in science as portrayed, for example, in film will be explored and critically discussed. Ways to improve communication between the scientist and the general public will be evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5423 Antibiotics and Antibiotic Resistance
Description: This course begins with a basic history of antibiotics, including their discovery and industrial development. It covers the major classes of antibiotics, their structures and mechanisms of action, and the mechanisms by which bacteria become resistant to antibiotics. Also covered are industrial and commercial considerations, antibiotic stewardship, current challenges, and future prospects for antibiotic discovery and use. Same course as MICR 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5513 Grant Proposal Preparation
Prerequisites: Admission into Microbiology graduate program. Formats, strategies, and styles of research grant proposal writing.
Description: Activities include hypothesis development and critical evaluation of research proposals.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 5524 Biological Laboratory Instrumentation
Prerequisites: CHEM 1515 or equivalent and PBIO 1404 or MICR 2123 or BIOL 1604 or equivalents or consent of instructor.
Description: Lecture and laboratory course in biological instrumentation use, theory, experimental design, maintenance, and troubleshooting. Topics include liquid handling systems, pH/ISE meters, electrophoresis, spectrophotometers, centrifuges, chromatography, thermocyclers, and DNA sequencers. May not be used for degree credit with BIOL 4524; MICR 4524; PBIO 4524. Previously offered as BIOL 5524; PBIO 5524.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Microbiology & Mol Gen

MICR 5543 Microbial Genomics and Bioinformatics
Prerequisites: MICR 2123; MICR 3033 or MICR 3223 or equivalents.
Description: Basic approaches and strategies for microbial genome analysis, and hands-on training on the subject. Graduate students enrolled in the class are expected to give a comprehensive presentation on the genomic analysis done throughout the semester. The presentation should be a manuscript format with a brief Introduction, Materials and Methods, Results, and Discussion. A comprehensive use of all principals covered in class is expected and will be used for evaluation. Credit will also be given to handling questions and presentation skills. May not be used for degree credit with MICR 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 5553 Foundations of Cancer
Prerequisites: A minimum grade of "C" in CHEM 3053 (or equivalent) or MICR 3033 (or equivalent) or consent of instructor.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer progression/diagnosis, cancer treatments, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Suitable for graduate students in cancer-related research. Same course as PHYS 5553. May not be used for degree credit with MICR 3553, or PHYS 3553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Microbiology & Mol Gen

MICR 5990 Special Problems
Prerequisites: Permission of instructor.
Description: Investigations in the field of Microbiology. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6000 Dissertation
Prerequisites: Consent of major adviser.
Description: Research in microbiology for the PhD degree. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6112 Molecular Biology of Bacterial Viruses
Prerequisites: MICR 4123 and MICR 4133.
Description: Advanced study of bacteriaphages. Course previously offered as MICR 6113.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6120 Recent Advances in Microbiology
Prerequisites: One graduate course in biochemistry.
Description: Discussion and evaluation of recent scientific contributions in terms of the living organism. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Microbiology & Mol Gen

MICR 6133 Cellular Microbiology
Prerequisites: A strong undergraduate level background in microbiology, biochemistry or cell biology is expected.
Description: The molecular interactions between intracellular parasites and their host cells will be explored, emphasizing the manipulation of normal cellular processes to the benefit of the parasite. The course will involve critical reading of the current literature and development of an understanding of molecular microbe and cell biology research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6143 Advanced Microbial Physiology
Prerequisites: MICR 3223 or consent of instructor.
Description: Discussion of selected topics in microbial physiology. Critical analysis of research papers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6153 Molecular Microbial Genetics
Description: Examine modern and classical genetic techniques to understand the underlying principles of molecular genetics using original literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6223 Molecular Environmental Microbiology and Ecology
Prerequisites: MICR 3223 or consent of instructor.
Description: This course focuses on fundamental and applied aspects of microbial ecology, physiology and genomics. The course aims to highlight the value of microbes in applied disciplines such as medicine, agriculture, and biotechnology. Recent advances in methodologies and approaches for examining the phylogenetic and metabolic diversity of microorganisms in various ecosystems, as well as tools for understanding microbial community composition and identification of rare members of microbial community will be highlighted.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6253 Microbial Evolution
Prerequisites: MICR 2123, MICR 2132, BIOC 3653, BIOL 3023.
Description: The mechanisms and results of microbial evolution in nature and in the laboratory, with emphasis on microbes as model evolutionary systems, molecular evolution, classification and phylogeny, and discussion of protobiology and the probable fate of engineered microbes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

MICR 6323 Cell Signaling
Prerequisites: A strong undergraduate level background in microbiology, biochemistry, or cell biology is expected.
Description: Discussion of current literature on the mechanisms of prokaryotic and eukaryotic signal transduction and gene regulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Microbiology & Mol Gen

Undergraduate Programs

- Microbiology/Cell & Molecular Biology, BS (p. 1627)
- Microbiology/Cell & Molecular Biology: Medical Laboratory Science, BS (p. 1630)
- Microbiology/Cell and Molecular Biology: Pre-Medical/Pre-Dental, BS (p. 1633)
- Microbiology/Cell and Molecular Biology: Pre-Veterinary, BS (p. 1637)

Graduate Programs

The department offers graduate studies leading to the MS and PhD degrees in various areas of concentration, including microbial physiology, microbial genetics, microbial ecology, microbial pathogenesis, immunology, cell biology and the human microbiome.

Prerequisites

Applicants for admission must have received the baccalaureate degree from an accredited university or college and must have completed a minimum of 30 semester credit hours in the biological and physical sciences. The Aptitude Test portion of the Graduate Record Examination is required of all applicants. A majority of the departmental graduate faculty must approve applicants.

The Master of Science Degree

In addition to the general requirements for the degree, the following departmental requirements must be met in attaining 30 credit hours with thesis. The plan of study must include six thesis hours and one credit hour microbiology seminar for the traditional degree. An accelerated MS degree is available that is largely coursework and literature based, which allows completion of the degree in as little as 12 months. Literature research includes at least six credit hours in independent study.

Candidates for the MS degree are expected to attend and participate in all departmental seminars. A final oral examination covering the thesis (or literature research for the accelerated program) is administered by the advisory committee following a public presentation of the candidate's research.

The Doctor of Philosophy Degree

The study plan of a student entering the program with a bachelor's degree must include 30 credit hours in the biological and physical sciences. Those entering with a master's degree must include 15 hours in courses other than dissertation credits which were not included in the master's study plan. Three hours of microbiology seminar must be included.

Candidates for the PhD are expected to attend and participate in all departmental seminars. Candidates for the PhD degree must pass both a written and an oral qualifying examination. The final examination covering the dissertation research is given promptly after the candidate has given a public seminar on his/her research work.

Minors

- Microbiology (MICR), Minor (p. 1626)

Faculty

Jeffrey A. Hadwiger, PhD—Professor and Interim Department Head
Professors: Robert L. Burnap, PhD (Regents Professor and Vennerberg Chair in Bioinformatics); Mostafa S. Elshahed, PhD; Babu Z. Fathepure, PhD; Wouter D. Hoff, PhD; Rolf A. Prade, PhD; Marianna A. Patrauchan, PhD
Associate Professors: Erika Lutter, PhD; Noha Youssef, PhD
Assistant Professors: Matt Cabeen, PhD; Randy Morgenstein, PhD; Karen Wozniak, PhD; Avi Mitra, PhD; Sabrina Beckmann, PhD

Microbiology (MICR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Tyler George, 309 LSE, 405-744-5565

Minimum Grade Point Average in Minor Coursework: 2.00 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Minor Requirements		
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Select 10 additional hours upper-division microbiology courses		10
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Microbiology/Cell & Molecular Biology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314 & CHEM 1515	Chemistry I (LN) and Chemistry II (LN)	9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
A minimum grade of "C" in each course		
BIOC 3653	Survey of Biochemistry (or)	3
BIOC 3713 & BIOC 3813	Biochemistry I and Biochemistry II	
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
PBIO 1404	Plant Biology (LN)	4
or BIOL 1604	Animal Biology	
Select one of the following:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
MATH 2144	Calculus I (Q)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
MICR 3223	Advanced Microbiology	3
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
MICR 4012	Molecular Microbiology Laboratory I	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4112	Molecular Microbiology Capstone	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4233	Advanced Cell and Molecular Biology	3
MICR 4253	Concepts in Medical Genetics	3
or MICR 4263	Microbial Genetics: from Genes to Genomes	
Select 12 hours upper-division MICR (except MICR 3103) or upper-division hours from BIOL, BIOC, CHEM, ANSI, PHYS, PBIO, NSCI, STAT, CS, or MATH		12
Hours Subtotal		**53**
Electives [2]		
Select 14 hours		14
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Recommended courses:		

MICR 1211	First Year Microbiology Laboratory Experience	
Hours Subtotal		**14**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral health program may be substituted for major requirements.

Additional courses may be required for professional and/or graduate degrees.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1813	Preparation for Calculus (Q)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MICR 1211	First Year Microbiology Laboratory Experience (elective)	1
General Education courses		7
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
MATH 2144 or STAT 2013	Calculus I (Q) or Elementary Statistics (Q)	4
General Education courses		3
	Hours	**16**
Sophomore		
Fall		
MICR 3033	Cell and Molecular Biology	3
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**14**
Spring		
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry or Organic Chemistry I	3
CHEM 3012	Survey of Organic Chemistry Laboratory (If taking CHEM 3013)	2
PHYS 1114	College Physics I (LN)	4
Major, General Education, and Elective courses		6
	Hours	**15**
Junior		
Fall		
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
MICR 4012	Molecular Microbiology Laboratory I (Fall only)	2
BIOC 3653 or CHEM 3153	Survey of Biochemistry or Organic Chemistry II	3
BIOL 1604 or BIOL 3204 or PBIO 1404	Animal Biology or Physiology or Plant Biology (LN)	4
Major, General Education, and Elective courses		6
	Hours	**16**
Spring		
MICR 4233	Advanced Cell and Molecular Biology (Spring only)	3
MICR 4112	Molecular Microbiology Capstone (Spring only)	2
BIOL 3023 or ANSI 3423	General Genetics or Animal Genetics	3
Major, General Education, and Elective courses, or BIOC 3653		7
	Hours	**15**
Senior		
Fall		
MICR 4253 or MICR 4263	Concepts in Medical Genetics (Fall only) [2] or Microbial Genetics: from Genes to Genomes	3
General education, Major, and Elective courses		12
	Hours	**15**
Spring		
MICR 3223	Advanced Microbiology	3
Major, General Education, and Elective courses		11
	Hours	**14**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

2

MICR 4263 offered Spring only

Microbiology/Cell & Molecular Biology: Medical Laboratory Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314 & CHEM 1515	Chemistry I (LN) and Chemistry II (LN)	9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
A minimum grade of "C" in each course		
BIOC 3653	Survey of Biochemistry (or)	3
BIOC 3713 & BIOC 3813	Biochemistry I and Biochemistry II	
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
PBIO 1404	Plant Biology (LN)	4
or BIOL 1604	Animal Biology	
or BIOL 3214	Human Anatomy	
Select one of the following:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3253	Immunology	3
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
MICR 3033	Cell and Molecular Biology	3
BIOL 3204	Physiology	4
Complete Internship (p. 1631)		30
Hours Subtotal		**61**
Electives		
Select 6 hours		6
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Recommended courses		
MICR 1211	First Year Microbiology Laboratory Experience	
Hours Subtotal		**6**
Total Hours		**120**

Internship

First Year		
Fall		**Hours**
MICR 4117	Clinical Microbiology	7
MICR 4125	Clinical Chemistry I	5
	Hours	**12**
Spring		
MICR 4236	Clinical Hematology	6
MICR 4246	Clinical Immunology	6
	Hours	**12**
Summer		
MICR 4325	Clinical Chemistry II	5
MICR 4351	Topics in Clinical Laboratory Science	1
	Hours	**6**
	Total Hours	**30**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1813	Preparation for Calculus (Q) (or higher)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MICR 1211	First Year Microbiology Laboratory Experience	1
General Education courses		7
	Hours	**15**
Spring		
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
CHEM 1314	Chemistry I (LN)	4
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
MICR 3033	Cell and Molecular Biology	3
CHEM 1515	Chemistry II (LN)	5
General Education and Elective courses		7
	Hours	**15**
Spring		
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry or Organic Chemistry I	3
CHEM 3012	Survey of Organic Chemistry Laboratory (If taking CHEM 3013)	2
PHYS 1114	College Physics I (LN)	4
General Education courses		6
	Hours	**15**
Junior		
Fall		
BIOC 3653 or BIOC 3713 or CHEM 3153	Survey of Biochemistry or Biochemistry I or Organic Chemistry II	3
BIOL 3023 or ANSI 3423	General Genetics or Animal Genetics	3
BIOL 3204	Physiology	4
MICR 3253	Immunology (Fall only)	3
College and Elective courses		3
	Hours	**16**
Spring		
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
BIOL 1604 or BIOL 3214	Animal Biology or Human Anatomy	4
General Education and Electives or BIOC 3653 or BIOC 3813		9
	Hours	**14**
Summer		
MICR 4325	Clinical Chemistry II	5
MICR 4351	Topics in Clinical Laboratory Science	1
	Hours	**6**
Senior		
Fall		
MICR 4117	Clinical Microbiology	7
MICR 4125	Clinical Chemistry I	5
	Hours	**12**
Spring		
MICR 4236	Clinical Hematology	6
MICR 4246	Clinical Immunology	6
	Hours	**12**
	Total Hours	**120**

Microbiology/Cell and Molecular Biology: Pre-Medical/Pre-Dental, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
PHYS 1214	College Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
First Year Seminar		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314 & CHEM 1515	Chemistry I (LN) and Chemistry II (LN)	9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
A minimum grade of "C" in each upper-division course and MICR 2123 and MICR 2132		
Select from the following: [3]		3
BIOC 3653	Survey of Biochemistry [3]	
OR		
BIOC 3713 & BIOC 3813	Biochemistry I and Biochemistry II [3]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
or PBIO 1404	Plant Biology (LN)	
or BIOL 3214	Human Anatomy	
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
BIOL 3204	Physiology	4
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
Select one of the following courses: [5]		3
MATH 2144	Calculus I (Q) [5]	
STAT 2013	Elementary Statistics (Q) [5]	
STAT 3023	Statistical Reasoning for Medical Applications (Q) [5]	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
MICR 3223	Advanced Microbiology	3
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
or UNIV 3511	Health Profession School Preparation	
MICR 4012	Molecular Microbiology Laboratory I	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4112	Molecular Microbiology Capstone	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4233	Advanced Cell and Molecular Biology	3
Select 9 hours from the following:		9
MICR 3143	Medical Mycology [4]	
MICR 3253	Immunology	

MICR 3553	Foundations of Cancer	
MICR 4123	Virology	
MICR 4023	Microbiomes in Human Health and the Environment	
MICR 4053	Pathogenic Microbiology	
MICR 4203	Bioinformatics	
MICR 4253	Concepts in Medical Genetics	
MICR 4423	Antibiotics and Antibiotic Resistance	
MICR 4543	Microbial Genomics and Bioinformatics	
MICR 4263	Microbial Genetics: from Genes to Genomes	
Hours Subtotal		**57**
Electives [2, 3]		
Select 10 hours [3,5]		10
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Additional requirements for professional school admission exist. View Admission Requirements Sheets at your chosen school and/or at http://prehealth.okstate.edu.		
Recommended courses:		
MICR 1211	First Year Microbiology Laboratory Experience	
PSYC 1113	Introductory Psychology (S)	
SOC 1113	Introductory Sociology (S)	
UNIV 2511	Introduction to Health Careers	
UNIV 2611	Health Portfolio and Self-Development	
Hours Subtotal		**10**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral health program may be substituted for major requirements.

3

If BIOC 3713 and BIOC 3813 are selected, then elective hours will be reduced by 3 hours.

4

Offered Infrequently.

5

If MATH 2144 is chosen, Elective hours will be decreased by 1.

Additional requirements for professional school admission may exist. View Admission Requirements Sheets at your chosen school and/or at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be applied to degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
MICR 1211	First Year Microbiology Laboratory Experience	1
General Education courses		7
	Hours	**15**
Spring		
MATH 2144 or STAT 2013	Calculus I (Q) or Elementary Statistics (Q)	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
CHEM 1314	Chemistry I (LN)	4
General Education courses		3
	Hours	**16**
Sophomore		
Fall		
MICR 3033	Cell and Molecular Biology	3
CHEM 1515	Chemistry II (LN)	5
General Education courses		6
	Hours	**14**
Spring		
MICR 4233	Advanced Cell and Molecular Biology (Spring only)	3
CHEM 3053	Organic Chemistry I	3
PHYS 1114	College Physics I (LN)	4
General Education and Elective courses		6
	Hours	**16**
Junior		
Fall		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1214	College Physics II (LN)	4
General Education and Elective courses		6
	Hours	**15**
Spring		
BIOC 3653 or BIOC 3713	Survey of Biochemistry or Biochemistry I	3
BIOL 3204	Physiology	4
BIOL 3023 or ANSI 3423	General Genetics or Animal Genetics	3
MICR 4001 or UNIV 3511	Professional Transitions in Microbiology and Cell and Molecular Biology or Health Profession School Preparation	1
General Education and Elective courses		3
	Hours	**14**
Senior		
Fall		
MICR 4012	Molecular Microbiology Laboratory I (Fall only)	2
MICR 3223	Advanced Microbiology	3
MICR 4253 or MICR 3143 or MICR 3553 or MICR 4023 or MICR 4053 or MICR 4123 or MICR 4203 or MICR 4263 or MICR 4423 or MICR 4543	Concepts in Medical Genetics [1,2] or Medical Mycology or Foundations of Cancer or Microbiomes in Human Health and the Environment or Pathogenic Microbiology or Virology or Bioinformatics or Microbial Genetics: from Genes to Genomes or Antibiotics and Antibiotic Resistance or Microbial Genomics and Bioinformatics	3
Major, College, and Elective courses or BIOC 3813		7
	Hours	**15**
Spring		
MICR 4112	Molecular Microbiology Capstone (Spring only)	2
BIOL 1604 or BIOL 3214	Animal Biology or Human Anatomy	4
MICR 4263 or MICR 3143 or MICR 3553 or MICR 4023 or MICR 4053 or MICR 4123 or MICR 4203 or MICR 4253 or MICR 4423 or MICR 4543	Microbial Genetics: from Genes to Genomes [1,2] or Medical Mycology or Foundations of Cancer or Microbiomes in Human Health and the Environment or Pathogenic Microbiology or Virology or Bioinformatics or Concepts in Medical Genetics or Antibiotics and Antibiotic Resistance or Microbial Genomics and Bioinformatics	3
Major, General Education or Elective courses		6
	Hours	**15**
	Total Hours	**120**

1

The following courses are offered only in Fall semesters: MICR 3143 (of odd years), MICR 4023, MICR 4123, MICR 4203, MICR 4253, MICR 4423.

2

The following courses are offered only in Spring semesters: MICR 4053, MICR 4263, MICR 4543.

Microbiology/Cell and Molecular Biology: Pre-Veterinary, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q) (or higher)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN) [1]	4
PHYS 1214	College Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		2
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314 & CHEM 1515	Chemistry I (LN) and Chemistry II (LN)	9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
A minimum grade of "C" in each upper-division course and MICR 2123 and MICR 2132		
Select from the following: [3]		3
ANSI 3543	Principles of Animal Nutrition	3
BIOC 3653	Survey of Biochemistry [3]	
OR		
BIOC 3713 & BIOC 3813	Biochemistry I and Biochemistry II [3]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
Select one of the following:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
MATH 2144	Calculus I (Q)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
MICR 3223	Advanced Microbiology	3
MICR 4001	Professional Transitions in Microbiology and Cell and Molecular Biology	1
MICR 4012	Molecular Microbiology Laboratory I	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4112	Molecular Microbiology Capstone	2
or MICR 4990	Special Problems	
or CHEM 4990	Undergraduate Research in Chemistry	
MICR 4233	Advanced Cell and Molecular Biology	3
Supplemental Courses		
MICR 4253	Concepts in Medical Genetics	3
or MICR 4263	Microbial Genetics: from Genes to Genomes	
or MICR 4543	Microbial Genomics and Bioinformatics	
or ANSI 3453	Canine and Feline Genetics	
or ANSI 3463	Equine Genetics	
Select 9 hours from the following:		9
ANSI 3444	Animal Reproduction	

CHEM 4313	Medicinal Organic Chemistry	
ENGL 3323	Technical Writing	
HIST 3913	History of Medicine (H)	
MICR 3253	Immunology	
MICR 3553	Foundations of Cancer	
MICR 4053	Pathogenic Microbiology	
MICR 4023	Microbiomes in Human Health and the Environment	
MICR 4123	Virology	
MICR 4203	Bioinformatics	
MICR 4423	Antibiotics and Antibiotic Resistance	
NREM 4523	Wildlife Management Techniques	
PHIL 3703	Ethics & Animals (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 4713	Philosophy of Science (H)	
PHIL 4733	Philosophy of Biology (H)	
Hours Subtotal		**57**
Electives [2,3]		
Select 10 hours [3]		10
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Additional requirements for professional school admission exist. View Admission Requirements Sheets at your chosen school and/or at http://prehealth.okstate.edu.		
Recommended courses:		
MICR 1211	First Year Microbiology Laboratory Experience	
Hours Subtotal		**10**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral health program may be substituted for major requirements.

3

If BIOC 3713 and BIOC 3813 are selected, then elective hours will be reduced by 3 hours.

Additional requirements for professional school admission may exist. View Admission Requirements Sheets at your chosen school and/or at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be applied to degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Military Science

Students desiring to expand the scope of their education, while preparing for a dynamic and rewarding career as an officer in the United States Army, Active Duty, National Guard or Army Reserve, choose the Army Reserve Officer Training Corps program (ROTC) as an adjunct to their chosen field of study. With courses dealing in a wide range of subjects from leadership to tactics, taught both indoors and out, the Army ROTC program produces over 5,000 second lieutenants each year across the nation.

The Army ROTC program consists of a basic course and an advanced course. Students desiring to see what the program is like may enroll in up to 13 hours of military science with no commitment to the United States Army. During this basic course, emphasis is placed upon leadership, war gaming, individual skills, problem-solving, rappelling and land navigation. All lower-division ROTC courses are open to the entire University community regardless of year in school.

Students committing themselves to a commission in the United States Army are required to enroll in the Army ROTC advanced course upon completion of the basic course or equivalent. The advanced course consists of 12 hours of academic work taken during the junior and senior year. In addition, participation in a five-week summer camp is mandatory. The advanced course emphasizes further development of leadership skills, offensive and defensive tactics, physical conditioning, ethics, military law, professional and basic military knowledge and skills. Additionally, advanced course students are responsible for use of required military skills as they act as assistant instructors during laboratory periods, plan leadership laboratories, plan and conduct field training exercises and are responsible for coordinating and supervising departmental extracurricular activities. In addition there are several students who join Army ROTC in the simultaneous Membership Program in which they are both students in the ROTC and members of the Army Reserve or Oklahoma National Guard. This provides tremendous experience and economic benefit.

All advanced course students must satisfy directed professional military education (PME) requirements prior to receiving a commission. Commissioning through ROTC consists of two essential parts—a baccalaureate degree and completion of the advanced course requirements to include an upper-division military history course.

Students interested in the Department of Military Science are encouraged to visit with departmental faculty members at any time for further information concerning departmental course offerings and class sequence. A number of two-and three-year scholarships are available through the department. Prior enrollment in military science is not a prerequisite for departmental scholarship application.

Courses

MLSC 1113 Foundations of Officership
Description: Lecture: Team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, presentations and basic marksmanship. Fundamentals of leadership. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1112.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 1213 Basic Leadership
Description: Lecture: Principles of effective leading, communication skills and organizational ethical values. Optional weekend exercise. Lab: Learning and practicing basic skills such as rappelling, drill and ceremony, land navigation, individual first aid, individual training in small unit tactics. Previously offered as MLSC 1212.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2122 Leader's Training Course
Prerequisites: Must meet with Department head and have their approval.
Description: For students who have not completed all of basic ROTC. A four-week summer camp similar to Army Basic Training. No military obligation incurred. Completion of MLSC 2122 qualifies a student for entry into the Advanced Course.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2130 Military Physical Conditioning
Prerequisites: Must meet with department head and have their approval.
Description: Participation in and learning to plan and lead a physical fitness program. Development of an individual fitness program and the role of exercise and fitness in person's life. Offered for 1 hour fixed credit. Maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 2233 Individual Leadership Studies
Description: Ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Skills in oral presentation, writing, planning, coordinating groups, land navigation and basic military tactics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 2313 Leadership and Teamwork
Prerequisites: MLSC 2233.
Description: Individual and team aspects of military tactics in small unit operations. Safety assessment, movement techniques, planning for team safety and security and methods of pre-execution checks. Training techniques for continued leadership development.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3113 Leadership and Problem Solving
Prerequisites: Completion of lower-division MLSC or equivalent, and approval of professor of military science.
Description: Practical opportunities to lead small groups in situations of increasing complexity receiving personal assessments and encouragement. Use of small unit defensive tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 3223 Leadership and Ethics
Prerequisites: MLSC 3113.
Description: Analysis of tasks; preparation of written or oral guidance for team members to accomplish tasks. Delegating tasks and supervising. Planning and adapting to the unexpected in organizations under stress. Examination and application of lessons from leadership case studies. Examination of importance of ethical decision-making in setting a positive climate that enhances team performance.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4014 Leader Development and Assessment Course
Prerequisites: Must meet with Department Head and have their approval.
Description: A five-week camp conducted at an Army post. Individual leadership and basic skills performance.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Military Science

MLSC 4123 Leadership and Management
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Planning conducting and evaluating activities of the ROTC cadet organization. Articulating goals, putting plans into action to attain them. Assessing organizational cohesion and developing strategies to improve it. Developing confidence in skills to lead people and manage resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4223 Officership
Prerequisites: MLSC 3113 and MLSC 3223.
Description: Continuation of the methodology from MLSC 4123. Identification and resolution of ethical dilemmas. Refining counseling and motivating techniques. Examination of aspects of tradition and law as related to leading as an officer in the Army.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Military Science

MLSC 4422 The Tactical Planning Process
Prerequisites: Must meet with department head and have their approval.
Description: The tactical planning process and its components. Computer tactical simulations used to organize and synchronize the process.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Military Science

Minors

- Military Science (MLSC), Minor (p. 1642)

Faculty

Professor of Military Science and Head: LTC Kyle Ferguson
Assistant Professors: MSG Steven Adams; CPT Dustin Gabbert; SFC Adam Quintana; Mr. Jonathan Taylor; Mr. Jospeh Alvey

Military Science (MLSC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

LTC Kyle Ferguson, 312 TH, 405-744-1775

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Minor Requirements		
HIST 3333	History of the Second World War (HI)	3
or HIST 4353	American Military History (H)	
MLSC 3113	Leadership and Problem Solving	3
MLSC 3223	Leadership and Ethics	3
MLSC 4123	Leadership and Management	3
MLSC 4223	Officership	3
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Minors

- African American and Africana Studies (AFAA), Minor (p. 1644)
- American Indian Studies (AMIS), Minor (p. 1645)
- Asian Studies (ASTD), Minor (p. 1646)
- Central Asian Studies (CAST), Minor (p. 1647)
- Classical Studies (CLST), Minor (p. 1648)
- European Studies (EUST), Minor (p. 1649)
- Hispanic and Latin American Studies (HLAS), Minor (p. 1651)
- Middle East Studies (MES), Minor (p. 1652)
- Russian and East European Studies (REES), Minor (p. 1653)

African American and Africana Studies (AFAA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Vincent Burke, 201 SSH, 405-744-5569

Minimum Grade Point Average in Minor Coursework: 2.5 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
AFAM 1113	Introduction to Africana Studies (DH)	3
Select 15 hours of the following:		15
AFAM 2423	Black Popular Culture (DH)	
AFAM 3343	Black Psychology (DS)	
AFAM 3753	African American Arts and Culture (DH)	
AFAM 3950	Special Topics in Africana Studies	
AFAM 4453	Black Geographies & Memorialization in the Landscape (DH)	
AFAM 4543	Race Theory	
AFAM 4980	Research in Africana Studies	
AMST 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3193	African-American Literature (DH)	
GEOG 3763	Africa (IS)	
GWST 3613	Race and Reproduction in the U.S. (D)	
HIST 3123	The History of Modern Africa (HI)	
HIST 3133	African Diaspora History (DH)	
HIST 3503	Medieval Islamic History (H)	
HIST 3773	The American South to 1860	
HIST 4153	African American History, 1619-1865 (DH)	
HIST 4163	African American History, 1865-Present (DH)	
HIST 4173	Black Intellectual History (DH)	
MGMT 4213	Managing Diversity in the Workplace (D)	
NSCI 2112	Foods of the African Diaspora: Chronology, Evolution and Impact	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
POLS 3163	African Politics (I)	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3973	Race, Politics and Sports (D)	
PSYC 3343	Black Psychology (DS)	
SOC 3133	Racial and Ethnic Relations (DS)	
Other courses may apply with permission of the faculty coordinator.		
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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American Indian Studies (AMIS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

John Chaney, Faculty contact, 116 NH , 405-744-6113, john.chaney@okstate.edu
Anthony Valentine, Advisor, 213 LSE, 405-744-5658

Total Hours: 18 hours from at least three disciplines.

Code	Title	Hours
Minor Requirement		
AMIS 2013	Introduction to American Indian Studies (D)	3
Select 9 hours of the following:		9
AMIS 3713	Native American Entrepreneurship (D)	
AMIS 4013	American Indian Sovereignty (D)	
ART 4763	Native American Art and Material Culture	
ENGL 3183	Native American Literature (DH)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
HIST 3793	Native American History (DH)	
LL 1000	Special Studies in Languages and Literatures (Mvskoke Language and Culture)	
REL 3573	The Religions of Native Americans (DH)	
Select 6 additional hours from the list above or the following:		6
ART 3733	History of Latin American Art I	
EEE 3033	Women and Minority Entrepreneurship	
GEOG 3703	Geography Of Oklahoma (S)	
GEOG 4103	Historical Geography of North America since 1800 (H)	
HIST 4523	American Environmental History (H)	
HIST 3763	American Southwest (DH)	
MGMT 4213	Managing Diversity in the Workplace (D)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
SOC 3133	Racial and Ethnic Relations (DS)	
Total Hours		**18**

The following courses may be used with permission from the faculty coordinator.

Code	Title	Hours
ENGL 3153	Readings in Literature by Women (DH)	3
ENGL 3813	Readings in the American Experience (DH)	3
HIST 3703	Oklahoma History (DH)	3
HIST 3753	Trans-Mississippi West (DH)	3
HIST 4453	History and Film (H)	3
HIST 4980	Topics in History	1-3
PSYC 4880	Senior Honors Thesis	1-6
PSYC 4990	Research Practicum	1-6

Other Requirements

- 12 hours must be upper-division.
- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Asian Studies (ASTD), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 21

Code	Title	Hours
Minor Requirements		
Select minimum of one 2000-level JAPN or CHIN course (or equivalent proficiency)		3
Select 18 hours from at least three disciplinary areas:		18
ANTH 3353	Cultural Anthropology (IS) [1]	
ANTH 4990	Special Topics in Anthropology [1]	
ART 3693	Survey of Asian Art (H)	
ART 4663	History of Chinese Art (H)	
ART 4673	History of Japanese Art	
ART 4703	Art East and West: Biases and Borrowings	
ART 4800	Special Studies in Art [1]	
ECON 3613	International Economic Relations (IS) [1]	
ECON 4643	International Economic Development (IS) [1]	
GEOG 3133	Political Geography (IS) [1]	
GEOG 3753	Asia (IS)	
GEOG 3783	The Middle East (IS)	
HIST 1713	Survey of Eastern Civilization (H)	
HIST 3053	Introduction to Central Asia Studies (IS)	
HIST 3403	East Asia to 1800 (H)	
HIST 3413	East Asia Since 1800 (HI)	
HIST 3423	Modern Japan (HI)	
HIST 3433	Modern China (HI)	
HIST 3980	Studies in History [1]	
HIST 4980	Topics in History [1]	
LL 3500	Specialized Study in a Modern Language [1]	
MKTG 4553	International Marketing [1]	
PHIL 3943	Asian Philosophy (HI)	
POLS 3053	Introduction to Central Asia Studies (IS)	
POLS 3223	Asian Politics	
POLS 4053	War And World Politics (I) [1]	
SOC 3713	Religion, Culture and Society [1]	
SOC 4533	World Population Problems [1]	
Total Hours		**21**

1

All courses marked with a [1] are variable-topic courses and may count toward the minor when topic appropriate. Prior approval from faculty coordinator is required.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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Central Asian Studies (CAST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 21

Code	Title	Hours
Minor Requirements		
Select a minimum of one 2000-level RUSS course (or equivalent proficiency in Kazak, Kyrzhyz, Tadjik, Turkmen, or Uzbek)		3
Select 3 hours from the following:		3
GEOG 3053	Introduction to Central Asia Studies	
HIST 3053	Introduction to Central Asia Studies (IS)	
POLS 3053	Introduction to Central Asia Studies (IS)	
RUSS 3053	Introduction to Central Asian Studies	
Select 15 hours from at least three disciplinary areas:		15
GEOG 3733	Russia and Its Neighbors (IS)	
HIST 3153	Russia to 1861 (H)	
HIST 3163	Russia Since 1861 (HI)	
HIST 3203	The Medieval World, 500-1500 (H)	
HIST 3503	Medieval Islamic History (H)	
POLS 3003	The Soviet Union: History, Society and Culture(IS)	
POLS 3053	Introduction to Central Asia Studies (IS)	
POLS 3123	Russian & Eurasian Politics (I)	
REL 4113	The World of Islam: Cultural Perspectives (HI)	
RUSS 3003	The Soviet Union: History, Society and Culture	
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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Classical Studies (CLST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 21

Code	Title	Hours
Minor Requirements		
Select 12 hours of either Greek or Latin		12
Select 9 hours of the following:		9
ART 3603	History of Classical Art (H)	
HIST 3023	Ancient Greece (H)	
LL 2103	Masterworks of Western Culture: Ancient and Medieval	
PHIL 3113	Ancient Greek Philosophy (H)	
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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European Studies (EUST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Total Hours: 21

Code	Title	Hours
Minor Requirements		
Minimum of one 2000-level language course from FREN, GRMN, RUSS or SPAN		3
Select 18 hours from at least three disciplinary areas, with no more than 3 lower-division hours:		18
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 4073	History and Theory of Early Modern Architecture	
ART 1503	Art History Survey I (H)	
ART 1513	Art History Survey II (H)	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3653	History of 19th Century Art (H)	
ART 3673	History of Northern Renaissance Art	
ART 3683	History of 20th Century Art (HI)	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4583	Rome: The Eternal City in Art and Film (H)	
ART 4593	Art of Conversion: 16th Century Art in Mexico (H)	
ART 4613	Art Since 1960	
ART 4783	Rembrandt Van Rijn	
ENGL 3123	Mythology (H)	
ENGL 3163	Literatures of the Ancient World (H)	
ENGL 3463	History of International Film (HI)	
ENGL 4100	Studies in Medieval British Literature	
ENGL 4110	Studies in 16th Century British Literature	
ENGL 4120	Studies in 17th Century British Literature	
ENGL 4130	Studies in 18th Century British Literature	
ENGL 4160	Studies in 19th Century British Literature	
ENGL 4200	Studies in Early American Literature	
ENGL 4300	Studies in Romanticism	
ENGL 4350	Contemporary International Cinema	
FREN 3853	Introduction to Analysis of French Literature	
FREN 4153	Survey of French Literature I	
FREN 4173	Survey of French Literature II	
FREN 4333	Background of Modern French Civilization	
GEOG 3723	Europe (IS)	
GRMN 4153	Survey of German Literature I	
GRMN 4163	Survey of German Literature II	
GRMN 4333	Backgrounds of Modern German Civilization	
GRMN 4343	Modern Germany	
GRMN 4543	Contemporary German Literature and Culture	
HIST 3023	Ancient Greece (H)	
HIST 3113	Germany Since 1815 (HI)	
HIST 3153	Russia to 1861 (H)	
HIST 3163	Russia Since 1861 (HI)	
HIST 3203	The Medieval World, 500-1500 (H)	
HIST 3243	Renaissance, 1350-1517 (H)	
HIST 3253	Absolutism and Enlightenment, 1648-1789	
HIST 3263	Modern Europe, 1815-1914 (H)	
HIST 3273	Modern Europe Since 1914 (HI)	
HIST 3323	Modern France, 1789-Present (HI)	
HIST 3343	World War I in Modern European Culture (HI)	
HIST 3353	Mediterranean World	
HIST 3373	Invasion and Identity: The Medieval English World: 700-1400 (H)	
HIST 3383	Tudor-Stuart England (H)	
HIST 3393	Modern England: 1714-Present (H)	
HIST 3483	Reformation Europe, 1517-1648 (H)	
HIST 3493	Scandinavia Since 1500 (HI)	
HIST 3913	History of Medicine (H)	
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe	
HIST 3963	Modern Empires and Revolutions (H)	
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)	
HIST 4413	Sex and Gender in the Medieval World (H)	
MUSI 2573	Introduction to Music (H)	
MUSI 3753	History of Music to 1600 (H)	
MUSI 3763	History of Music from 1600-1800	
MUSI 3873	History of Music from 1800-Present	
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3523	Medieval Philosophy (H)	
PHIL 3743	Science and Human Values (H)	
PHIL 3913	Existentialism (H)	
PHIL 4113	Philosophy & the Arts (H)	
POLS 2113	Introduction to Comparative Politics (IS)	
POLS 3143	European Politics (I)	
POLS 3663	Introduction to Political Thought	
RUSS 3113	Russian Conversation	
RUSS 3223	Russian Composition	
SOC 3113	Theoretical Thinking in Sociology	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 4383	Social Stratification (S)	

SOC 4643	Sociology of Gender (S)
SPAN 4123	Hispanic Poetry
SPAN 4133	Hispanic Prose
SPAN 4163	Don Quijote
SPAN 4173	Hispanic Drama
SPAN 4223	Contemporary Hispanic Literature
SPAN 4253	Masterpieces of Hispanic Literature I
SPAN 4263	Masterpieces of Hispanic Literature II
SPAN 4323	Culture and Civilization of Spain
TH 3923	World Theatre History Before 1800 (H)
TH 3933	World Theatre History After 1800 (H)
Total Hours	**21**

[1]

All courses marked with a [1] are variable-topic courses and may count toward the minor when topic appropriate. Prior approval from faculty coordinator is required.

Other Requirements

- No grade below "C."
- 2.5 GPA in minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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Hispanic and Latin American Studies (HLAS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 21

Code	Title	Hours
Minor Requirements		
Select a minimum of one 2000-level SPAN course (or equivalent proficiency in Portuguese)		3
Select 18 hours from at least three disciplinary areas:		18
ANTH 3443	Peoples of Mesoamerica (IS)	
ANTH 4223	The Aztec Empire (H)	
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ART 3633	History of Baroque Art (H)	
GEOG 3743	Latin America (IS)	
LL 3103	Hispanic Literature in Translation (H)	
HIST 3243	Renaissance, 1350-1517 (H)	
HIST 3453	Colonial Latin America (H)	
HIST 3463	Modern Latin America (HI)	
POLS 3193	Latin American Politics (IS)	
POLS 4053	War And World Politics (I)	
SPAN 3163	Literature of Medieval and Early Modern Spain	
SPAN 3173	Literature of Spain from 1700 to the Present	
SPAN 3183	Early Latin American Literature	
SPAN 4123	Hispanic Poetry	
SPAN 4133	Hispanic Prose	
SPAN 4163	Don Quijote	
SPAN 4253	Masterpieces of Hispanic Literature I	
SPAN 4263	Masterpieces of Hispanic Literature II	
SPAN 4323	Culture and Civilization of Spain	
SPAN 4333	Culture and Civilization of Latin America	
SPAN 4550	Seminar in Spanish [1]	
SPAN 5110	Advanced Hispanic Studies [1]	
Total Hours		**21**

1

All courses marked with a [1] are variable-topic courses and may count toward the minor when topic appropriate. Prior approval from faculty coordinator is required.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

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Middle East Studies (MES), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 22

Code	Title	Hours
Minor Requirements		
Select 10 hours of college-level language instruction in Arabic, Farsi, modern Hebrew or Turkish		10
Select 12 hours in at least two separate disciplines of the following:		12
AMST 3813	Readings in the American Experience (DH)	
or ENGL 3813	Readings in the American Experience (DH)	
AMST 3950	Special Topics in American Studies (DH) (Global Islam)	
ARCH 4273	History and Theory of Islamic Architecture	
GEOG 3783	The Middle East (IS)	
HIST 3543	Israel & Palestine in Modern Times (HI)	
REL 4113	The World of Islam: Cultural Perspectives (HI)	
REL 4213	Understanding Global Islam (HI)	
SOC 4653	Gender and the Middle East (IS)	
Total Hours		**22**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Russian and East European Studies (REES), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Anthony Valentine, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 23

Code	Title	Hours
Minor Requirements		
Select a minimum of one 2000-level RUSS course (or equivalent proficiency)		
Select 15 hours from a least three disiplinary areas of the following:		15
GEOG 3723	Europe (IS)	
GEOG 3733	Russia and Its Neighbors (IS)	
HIST 3153	Russia to 1861 (H)	
HIST 3163	Russia Since 1861 (HI)	
HIST 4563	Cold War (HI)	
POLS 3123	Russian & Eurasian Politics (I)	
POLS 4053	War And World Politics (I)	
RUSS 3123		
RUSS 4113		
RUSS 4123	Russian Literature in Translation II	

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Multidisciplinary Studies

Multidisciplinary Studies degrees meet the needs of students who desire greater breadth in the major than typical degrees allow. By combining coursework across several disciplines, students tailor their curriculum to unique academic and career goals. Some areas of concentration are available through online coursework - see http://cas.okstate.edu for more details. To ensure coherence among courses selected across disciplines, a three-semester-hour senior project is required as a part of the major.

Undergraduate Programs

- Interdisciplinary Studies, BA (p. 1655)
- Interdisciplinary Studies, BS (p. 1658)
- Interdisciplinary Studies: Business Essentials, BA (p. 1661)
- Interdisciplinary Studies: Business Essentials, BS (p. 1664)
- Interdisciplinary Studies: Pre-Law, BA (p. 1667)
- Interdisciplinary Studies: Pre-Law, BS (p. 1670)

Faculty

Andrew Doust, PhD—Director

Interdisciplinary Studies, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline approved by advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH, ART, BIOL, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PBIO, PHIL, PHYS, POLS, PSYC, REL, SOC, SPCH, STAT, TH		
12 hours from a second discipline or area of concentration (approved by advisor)		12
10 additional hours		10
Hours Subtotal		**40**
Electives		
Select 18 hours		18
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		
Hours Subtotal		**18**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except

CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.

c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
College and Elective courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
See program advisor.		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
A&S 4013	Multidisciplinary Studies Capstone	3

Major, College, and Elective courses	12
Hours	**15**
Total Hours	**120**

Interdisciplinary Studies, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [1]		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline approved by advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH, ART, BIOL, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PBIO, PHIL, PHYS, POLS, PSYC, REL, SOC, SPCH, STAT, TH		
12 hours from a second discipline or area of concentration (approved by advisor) [1]		12
10 additional hours		10
Hours Subtotal		**40**
Electives		
Select 27 hours [1]		27
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		
Hours Subtotal		**27**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for 9 of these 12 hours and 21 hours of electives.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic

Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.

b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.

c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**

a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		7
	Hours	**16**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
General Education courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
See program advisor.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**

Spring		
A&S 4013	Multidisciplinary Studies Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Interdisciplinary Studies: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
(See note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline, approved by the advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH/SOC, ART, BIOL, BOT/PBIO, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PHIL, PHYS, POLS, PSYC, REL, SPCH, STAT, TH		
12 hours from a second discipline or area of concentration		12
12 hours business essentials:		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**42**
Electives		**16**
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
College and Elective courses		12
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
See program advisor.		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**

Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
A&S 4013	Multidisciplinary Studies Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Interdisciplinary Studies: Business Essentials, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher - except MATH 1493)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
(See note 2.b.)		9
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline, approved by the advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH, ART, BIOL, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PBIO, PHIL, PHYS, POLS, PSYC, REL, SOC, SPCH, STAT, TH		
12 hours from a second discipline or area of concentration		12
12 hours business essentials:		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**42**
Electives		
Select 25 hours of electives.		25
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		
Hours Subtotal		**25**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		7
	Hours	**16**
Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
General Education courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
See program advisor.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**

Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
A&S 4013	Multidisciplinary Studies Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Interdisciplinary Studies: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline approved by advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH, ART, BIOL, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PBIO, PHIL, PHYS, POLS, PSYC, REL, SOC, SPCH, STAT, TH		
12 hours from a second-discipline or area of concentration (approved by advisor)		12
10 additional hours		10
At least 12 hours from the following must be included in the degree:		
AMIS 4013	American Indian Sovereignty (D)	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**40**
Electives		
Select 18 hours		18
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		

Hours Subtotal	**18**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213	Composition II	3

POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
1713 First Semester Foreign Language		3
PHIL 1313	Logic and Critical Thinking (Q)	3
College and Elective courses		9
	Hours	**15**
Spring		
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Junior		
Fall		
See program advisor.		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
A&S 4013	Multidisciplinary Studies Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Interdisciplinary Studies: Pre-Law, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00. No more than 9 hours may be lower-division.		
A&S 4013	Multidisciplinary Studies Capstone (or 3-hour capstone or internship in the primary discipline approved by advisor)	3
or A&S 3710	A&S Internship	
15 hours from one of the following disciplines. Minimum GPA 2.00 for all courses in this primary discipline.		15
AMIS, AMST, ANTH, ART, BIOL, CS, CHEM, ECON, ENGL, FLL (including ASL, FREN, GREK, GRMN, LATN, RUSS, SPAN), GEOG, GEOL, GWST, HIST, MATH, MICR, MUSI, PBIO, PHIL, PHYS, POLS, PSYC, REL, SOC, SPCH, STAT, TH		
12 hours from a second discipline or area of concentration (approved by advisor) [1]		12
10 additional hours		10
At least 12 hours from the following must be included in the degree:		
AMIS 4013	American Indian Sovereignty (D)	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**40**
Electives [1]		
Select 27 hours		27
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department (see note 2.c.). May need to include 9 additional upper-division hours.		
Hours Subtotal		**27**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for 9 of these 12 hours and 21 hours of electives.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 48 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
HIST 1493 or HIST 1483 or HIST 1103	American History Since 1865 (DH) or American History to 1865 (H) or Survey of American History	3
MATH 1483 or MATH 1493 or MATH 1513	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q)	3
General Education courses		7
	Hours	**16**

Spring		
ENGL 1213	Composition II	3
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
General Education courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Junior		
Fall		
See program advisor.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
File capstone paperwork no later than pre-finals week.		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
A&S 4013	Multidisciplinary Studies Capstone	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Music

The Michael and Anne Greenwood School of Music at OSU serves students who plan careers in the field of music as well as those who desire to participate in any element of a comprehensive music program. Professional instruction prepares students for careers in performance, teaching, and the music industry. The OSU undergraduate degrees are also excellent preparation for graduate school and for careers in arts management, recording technology, music composition and arranging, church music, and music academia, among other paths.

Students planning to major in music at the university level should have a strong interest in music and/or a talent for performance in vocal or instrumental music. Individual lessons, fundamental theory knowledge, and basic piano ability also supports success at the university level.

The music major may choose from the following degrees:

1. Bachelor of Music (BM) in performance or jazz performance,
2. BM in instrumental or vocal music education,
3. Bachelor of Arts (BA) in music or music with a composition option, and
4. Bachelor of Science (BS) in music industry.

The student majoring in a discipline other than music may participate with music majors in all ensembles (choirs, opera, orchestra, concert bands, marching band, basketball band, jazz bands, popular and new music ensembles, and chamber ensembles) and courses, as well as individual lessons for academic credit. Students may also pursue a minor in music. The Greenwood School of Music offers minors in music, applied music, jazz, and composition/theory.

An active scholarship program provides assistance to music majors and non-music majors. Students are invited to write, call 405.744.8997, or visit our website (music.okstate.edu (http://music.okstate.edu)) for audition information.

Faculty members, students, and ensembles present over 150 concerts and recitals annually. The school also supports a robust program of extension and outreach opportunities.

The Michael and Anne Greenwood School of Music is accredited by the National Association of Schools of Music and is an All-Steinway School.

Admission Requirements

Students wishing to major or minor in music should contact the Michael and Anne Greenwood School of Music to arrange for an entrance audition and interview.

Students are expected to maintain an overall GPA of at least 2.0 while enrolled as music majors at OSU. Any student whose GPA falls below 2.0 will be placed on departmental probation. To be removed from departmental probation, students must increase the overall GPA to at least 2.0. Any student who fails to meet the minimum GPA requirement in two consecutive semesters will be suspended from the OSU music program. For the purpose of determining probationary status, the number of ensemble credits that apply toward the GPA cannot exceed the total number of ensemble credits required for completion of the degree. Though a student must maintain an overall GPA of at least 2.0 in order to avoid departmental probation from semester to semester, all music students must have a minimum GPA of at least 2.5 in the required major courses in order to graduate. In addition to maintaining a 2.0 overall GPA, students must earn grades no lower than a C in any music class. Students who fail to pass a required music course with a grade of at least a C after two attempts will be suspended from the music major.

Applied Juries

Students are expected to pass a performance jury at the conclusion of each semester of applied study.

Any students who fail to pass this jury will be placed on departmental probation. Students must also pass an upper-division barrier jury prior to enrolling in upper-division applied lessons if required by the degree program. Any students who do not pass this jury will be placed on departmental probation. Those students must retake this performance barrier jury at the conclusion of the following semester. Any students who fail a performance barrier jury for two consecutive semesters will be suspended from the music program.

Any student suspended from the music program may re-audition for acceptance into the program but must wait at least one year before continuing as a music major. Students who are initially suspended from the music program but are later accepted after the re-audition process will remain on probationary status for one semester. Any re-admitted student who does not meet all of the necessary minimum requirements at the conclusion of their first semester of re-admittance will be suspended from the program.

Further details of the departmental academic progress policy are published in the Undergraduate Music Student Handbook at music.okstate.edu (http://music.okstate.edu).

Courses

MUSI 0500 Student Recital Attendance
Description: Graduation requirement for music degree or certificate candidates. Graded on a pass/fail basis.
Credit hours: 0
Contact hours: Lecture: 0 Contact: 0
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1001 Percussion Techniques
Description: Methods for playing and teaching percussion instruments.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1002 Fundamentals of Music
Description: The study of the foundations of tonal harmony.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1011 Class Piano I
Prerequisites: Music major status or consent of instructor AND (MUSI 1532 with a minimum grade of "C" OR concurrent enrollment in MUSI 1532).
Description: Class Piano I is a course designed for vocal and instrumental (non-keyboard) majors to develop functional piano skills. Basic fluency in musical notation is assumed.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1021 Class Piano II
Prerequisites: MUSI 1011 with minimum grade of "C" and music major status or consent of instructor.
Description: Class Piano II continues the development of keyboard skills established in MUSI 1011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1031 Voice Class Lessons
Description: To gain knowledge within a group class setting of the vocal instrument as it applies to each individual, and to learn to apply these techniques to solo voice performance. To give each student a strong foundation in healthy classical vocal technique to allow them to sing throughout their lifetime.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1071 Single Reed Techniques
Description: Methods for playing and teaching the clarinet and saxophone.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1081 Double Reed Techniques
Description: Methods for playing and teaching the oboe and bassoon.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1091 High Brass Techniques
Prerequisites: MUSI 1532 with a minimum grade of "C" or consent of instructor.
Description: Methods for playing and teaching the trumpet and French horn.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1110 Elective Organ
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1120 Elective Piano
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1130 Elective Voice
Prerequisites: Concurrent enrollment in a choral ensemble (MUSI 2630, MUSI 3630 and/or MUSI 4600) or permission of instructor.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1140 Elective Brass
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1150 Elective Class Guitar
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1160 Elective Woodwinds
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1170 Elective Percussion
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1180 Secondary Organ
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1190 Secondary Piano
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1200 Secondary Voice
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1210 Secondary Brass
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1220 Secondary String
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1230 Secondary Woodwind
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1240 Secondary Percussion
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1250 Major Organ
Description: Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1260 Major Piano
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1270 Major Voice
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1280 Major Violin
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1290 Major Viola
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1300 Major Cello
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1310 Major Double Bass
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1340 Major Flute
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1350 Major Oboe
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1360 Major Clarinet
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1370 Major Saxophone
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1380 Major Bassoon
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1390 Major Trumpet
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1400 Major French Horn
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1410 Major Trombone
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1420 Major Euphonium
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1430 Major Tuba
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1440 Major Percussion
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 1501 Sightreading and Technique for Piano Majors
Prerequisites: Music major status or consent of instructor.
Description: Sightreading and Technique for Piano Majors is a course designed for pianists to develop keyboard fluency through essential keyboard skills required for pianists, including sightreading, technique, harmonization and transposition.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 1531 Sight Singing and Aural Skills
Prerequisites: Must have passed or be concurrently enrolled in MUSI 1532 Theory of Music I.
Description: Development of skills in sight singing and aural perception. Taken concurrently with MUSI 1532.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1532 Theory of Music I
Prerequisites: MUSI 1002 Fundamentals of Music or receiving a passing score of 30 points or higher on the music theory diagnostic exam.
Description: The study of tonal harmony through analysis and composition. Taken concurrently with MUSI 1531. Previously offered as MUSI 1533.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1541 Sight Singing and Aural Skills II
Prerequisites: MUSI 1531 and (MUSI 1532 or MUSI 1533) with minimum grade of "C."
Description: A continuation of MUSI 1531. Taken concurrently with MUSI 1542 or MSIN 2022.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1542 Theory of Music II
Prerequisites: MUSI 1532 with minimum grade of "C."
Description: A continuation of MUSI 1532. Taken concurrently with MUSI 1541. Previously offered as MUSI 1543.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1623 Introduction to Music Business
Prerequisites: Music major status or consent of instructor.
Description: A survey of music business procedures, opportunities, technologies and trends.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 1631 Introduction to Diction for Singers
Description: Designed for Music Education majors. Introduces and develops skills in pronunciation and diction for singing in English, Italian, French and German.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2010 Piano Class Lessons
Prerequisites: MUSI 1021 with minimum grade of "C" and music major status.
Description: Class lessons for music majors (non-keyboard concentration) preparing for the piano proficiency examination. Previously offered as MUSI 2011. Offered for 1-fixed credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2013 Popular Music Theory
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: This course is a continuation of MUSI 1542. The course will focus on jazz and popular music theory, including elementary principles of popular chord voicings and arrangements, chord scale relationships, blues, AABA and other song forms. Analysis of jazz solo transcription as well as basic keyboard skills will be emphasized in addition to required listening to exceptional examples of standard popular music recordings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2051 High String Techniques
Description: Methods for playing and teaching the violin and viola. Previously offered as MUSI 2052.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2061 Low String Techniques
Description: Methods for playing and teaching the cello and double bass. Previously offered as MUSI 2052.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2071 Flute Techniques
Description: Methods for playing and teaching the flute.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2080 Music Composition
Prerequisites: Consent of instructor.
Description: Practical experience in musical composition. Offered for 1-2 credit hours, maximum of 8.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2091 Low Brass Techniques
Description: Methods for playing and teaching the trombone, euphonium, and tuba.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2250 Major Organ
Prerequisites: MUSI 1250.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2260 Major Piano
Prerequisites: MUSI 1260.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2270 Major Voice
Prerequisites: MUSI 1270.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2280 Major Violin
Prerequisites: MUSI 1280.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2290 Major Viola
Prerequisites: MUSI 1290.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2300 Major Cello
Prerequisites: MUSI 1300.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2310 Major Double Bass
Prerequisites: MUSI 1310.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2340 Major Flute
Prerequisites: MUSI 1340.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2350 Major Oboe
Prerequisites: MUSI 1350.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2360 Major Clarinet
Prerequisites: MUSI 1360.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2370 Major Saxophone
Prerequisites: MUSI 1370.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2380 Major Bassoon
Prerequisites: MUSI 1380.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2390 Major Trumpet
Prerequisites: MUSI 1390.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2400 Major French Horn
Prerequisites: MUSI 1400.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2410 Major Trombone
Prerequisites: MUSI 1410.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2420 Major Euphonium
Prerequisites: MUSI 1420.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2430 Major Tuba
Prerequisites: MUSI 1430.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2440 Major Percussion
Prerequisites: MUSI 1440.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2450 Major Harpsichord
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2480 Elective Applied Lessons
Prerequisites: Permission of instructor.
Description: Applied lessons for non-music majors or for majors studying secondary instruments.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2490 Major Applied Lessons
Prerequisites: Music major status.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 2551 Sight Singing and Aural Skills III
Prerequisites: MUSI 1541 and MUSI 1542 with minimum grade of "C."
Description: Further development of skills in sight singing and aural perception. Taken concurrently with MUSI 2552.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2552 Theory of Music III
Prerequisites: MUSI 1542 with minimum grade of "C."
Description: A continuation of MUSI 1542. Taken concurrently with MUSI 2551. Previously offered as MUSI 2553.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2561 Sight Singing and Aural Skills IV
Prerequisites: MUSI 2551 and MUSI 2552 with minimum grade of "C."
Description: A continuation of MUSI 2551. Taken concurrently with MUSI 2562.
Credit hours: 1
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2562 Theory of Music IV
Prerequisites: MUSI 2552 with minimum grade of "C."
Description: A continuation of MUSI 2552. Taken concurrently with MUSI 2561. Previously offered as MUSI 2563.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2573 Introduction to Music (H)
Description: Introduction to the great music of the past and present with the objective of bridging the gap between the audience and concert stage via active listening. No prior musical experience required. Previously offered as MUSI 2572.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2583 Hip-Hop Music
Description: This course examines hip-hop as a musical genre and culture, exploring MCing/rapping, DJing/scratching, sampling, beat boxing, and break dancing, within its musical and social context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2603 Film Music
Description: This course examines film music from the silent film era to present day. Students analyze film scores to observe the associations between music and film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2610 University Bands I
Description: Beginning study of a wide variety of music in all areas of band literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2620 Symphony Orchestra I
Description: Beginning study of a wide variety of music in all areas of orchestral literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2630 University Choral Ensembles I
Description: Beginning study of a wide variety of music in all areas of choral literature. Offered for 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 2722 Introduction to Music Education
Description: An entry level course designed to socialize the music education major to the role of the music education teacher within U.S. schools. Topics include motivation and management, learning theories, micro teaching, music advocacy, portfolio introduction, and early field experience. Previously offered as MUSI 1723.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 2763 History of Rock and Roll (H)
Description: Study of the origins and innovators of rock and roll music. Course will examine the musical, historical and sociological significance of a variety of genres. Previously offered as MUSI 3733. May not be used for degree credit with MUSI 3883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2783 American Popular Music (H)
Description: A survey of American popular music from the nineteenth century to the present day. Beginning with Tin Pan Alley and Broadway, the course traces many major developments in American popular music, such as rock and roll, country music, soul, funk, disco, punk rock, and hip-hop.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 2990 Selected Studies in Music and Music Education
Description: Short-term area studies in music and music education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3012 Advanced Music Production
Prerequisites: MUSIC 3672 with a minimum grade of "C".
Description: Students explore techniques and practices related to making sound recordings. The objective of the course is to create studio quality recordings using Pro Tools.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3013 Country Music
Description: This course examines country music forerunners to present day commercial country music. Students explore social, political, and musical issues related to the American genre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3022 Piano Skills for Vocal Music Education Majors
Prerequisites: MUSI 2010 with a minimum grade of "C" or consent of instructor.
Description: Development of skills in sight-reading, score reading, and general ensemble accompaniment for vocal music education majors.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3110 Elective Organ
Prerequisites: MUSI 1110.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3120 Elective Piano
Prerequisites: MUSI 1120.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3130 Elective Voice
Prerequisites: Concurrent enrollment in a choral ensemble (MUSI 2630, MUSI 3630 and/or MUSI 4600) or permission of instructor.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3140 Elective Brass
Prerequisites: MUSI 1140.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3150 Elective String
Prerequisites: MUSI 1150.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3160 Elective Woodwind
Prerequisites: MUSI 1160.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3170 Elective Percussion
Prerequisites: MUSI 1170.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3180 Secondary Organ
Prerequisites: MUSI 1180.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3190 Secondary Piano
Prerequisites: MUSI 1190.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3200 Secondary Voice
Prerequisites: MUSI 1200.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3210 Secondary Brass
Prerequisites: MUSI 1210.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3220 Secondary String
Prerequisites: MUSI 1220.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3230 Secondary Woodwind
Prerequisites: MUSI 1230.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3240 Secondary Percussion
Prerequisites: MUSI 1240.
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3250 Major Organ
Prerequisites: MUSI 1250.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3260 Major Piano
Prerequisites: Upper-division examination, MUSI 2260.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3270 Major Voice
Prerequisites: Upper-division examination, MUSI 2270.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3280 Major Violin
Prerequisites: Upper-division examination, MUSI 2280.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3290 Major Viola
Prerequisites: Upper-division examination, MUSI 2290.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3300 Major Cello
Prerequisites: Upper-division examination, MUSI 2300.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3310 Major Double Bass
Prerequisites: Upper-division examination, MUSI 2310.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3340 Major Flute
Prerequisites: Upper-division examination, MUSI 2340.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3350 Major Oboe
Prerequisites: Upper-division examination, MUSI 2350.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3360 Major Clarinet
Prerequisites: Upper-division examination, MUSI 2360.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3370 Major Saxophone
Prerequisites: Upper-division examination, MUSI 2370.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3380 Major Bassoon
Prerequisites: Upper-division examination, MUSI 2380.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3390 Major Trumpet
Prerequisites: Upper-division examination, MUSI 2390.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3400 Major French Horn
Prerequisites: Upper-division examination, MUSI 2400.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3410 Major Trombone
Prerequisites: Upper-division examination, MUSI 2410.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3420 Major Euphonium
Prerequisites: Upper-division examination, MUSI 2420.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3430 Major Tuba
Prerequisites: Upper-division examination, MUSI 2430.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3440 Major Percussion
Prerequisites: Upper-division examination, MUSI 2440.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3460 Secondary Harpsichord
Description: Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3543 Music and Culture of Northern Italy (H)
Description: Study of northern Italy's contributions to culture through music and composers, instrument makers, architecture, and visual arts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3572 History of Opera in Society (H)
Description: This course examines the development of opera not only as a genre of western European art music, but also as a class-based form of theatrical entertainment that served as commentary on contemporary artistic, social, and political issues.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3573 America's Ethnic Music (DH)
Description: A survey of the ethnic settlers of America and their musical traditions and literatures. Particular emphasis is given to settlers indigenous to Oklahoma. Students will examine their individual ethnic roots in music, family traditions, and life passages (births, deaths, celebrations).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

MUSI 3582 Survey of World Musics
Description: Survey of musical systems, performance practices, and philosophies from around the world, highlighting non-Western musics.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3583 Traditional World Music (H)
Description: Survey of the richly diverse musics of the world, emphasizing traditional musical practices. Exploration of the wide parameters of musical possibilities and the distinct priorities of various musical cultures, in order to gain insight and appreciation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3592 Introduction to Music Technology
Prerequisites: MUSI 1532.
Description: Introduction to specialized computer applications in music, including music notation, digital audio recording, processing and editing.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3593 Video Game Music
Description: This course examines the role of music as well as sound design (effects and ambient sounds) in video games. The course traces the history of video game music, exploring the similarities and differences from film music. Students focus on the interactivity and nonlinearity of video game music.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3610 University Bands II
Prerequisites: 4 hours of MUSI 2610.
Description: Advanced study of a wide variety of music in all areas of band literature. Offered for fixed, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3620 Symphony Orchestra II
Description: Advanced study of a wide variety of music in all areas of orchestral literature. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3630 University Choral Ensembles II
Description: Advanced study of a wide variety of music in all areas of choral literature. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3640 Vocal Rehearsal Practicum
Prerequisites: MUSI 3712 with a minimum grade of "C"; AND MUSI 3832 with a minimum grade of "C"; and (MUSI 3932 with a minimum grade of "C" OR concurrent enrollment in MUSI 3932); OR consent of instructor.
Description: Designed for Vocal Music Education majors who are within two semesters of student teaching. This course prepares future teachers with classroom skills using one of the choral ensemble or lab group as their rehearsal medium. Previously offered as MUSI 3942. Same course as MUSI 3942. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3641 Instrumental Rehearsal Practicum
Description: Designed for Instrumental Music Education majors who are within two semesters of student teaching. This course prepares future teachers with classroom skills using an instrumental ensemble or lab group as their rehearsal medium. Previously offered as MUSI 3942 and MUSI 3640. Same course as MUSI 3640. Prerequislte(s): MUSI 3712 with a minimum grade of "C"; and MUSI 3832 with a minimum grade of "C"; AND concurrent enrollment in MUSI 3852 OR MUSI 3862; OR consent of instructor.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 3642 English and Italian Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing standard English and Italian through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard English and Italian vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3652 French Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing in French through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard French vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3662 German Diction and Vocal Literature
Description: Course is designed for vocal performance majors, vocal music education majors and other serious voice students to assist them in mastering correct pronunciation and diction for singing in German through the study and use of the international phonetic alphabet, and to familiarize them with many of the composers and songs which comprise the standard German vocal literature.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3672 Music Technology II
Prerequisites: MUSI 3592 with a minimum grade of "C".
Description: This course is a continuation of MUSI 3592. Music technology is a significant force in many aspects of contemporary music. This is especially apparent in the "pop" world (examples including amplification effects, synthetic instruments, music videos, and performance augmentation), but technology is not limited to this genre alone. MUSI 3672 will focus on acoustics, recording techniques, sound design and sound effects.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3712 Basic Conducting
Description: Principles of conducting choral and instrumental groups.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3722 Advanced Ensemble Conducting
Prerequisites: MUSI 3712 with a minimum grade of "C".
Description: Studies in advanced physical conducting techniques and score orientation, score reading, score analysis, and score interpretation.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3732 Secondary Choral Methods
Prerequisites: MUSI 3712 with a minimum grade of "C".
Description: Repertoire, rehearsal procedures, and vocal techniques for the public school choral teacher.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3741 Survey of Rock and Roll I
Description: An examination of the cultural and musical elements that led to the advent of Rock and Roll, through an exploration of the evolution of the music from its inception to 1980 through lecture, reading and musical recordings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3751 Survey of Rock and Roll II
Description: An examination of the cultural and musical elements that led to the advent of Rock and Roll, through an exploration of the music from 1980 to the present.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3753 History of Music to 1600 (H)
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from antiquity through the Renaissance period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music
General Education and other Course Attributes: Human Heritage & Cultures

MUSI 3763 History of Music from 1600-1800
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from the Baroque period through to the Classical period.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3772 Counterpoint
Prerequisites: (MUSI 2562 with a minimum grade of "C" or MUSI 2563 with a minimum grade of "C") and consent of instructor.
Description: Analysis and application of contrapuntal techniques of the 18th century. Students will be expected to have successfully passed the Upper-Division Theory Barrier Exam before enrolling in the course.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3783 Form And Analysis
Prerequisites: MUSI 2552 with minimum grade of "C" and successfully pass the Upper-Division Theory Barrier Exam.
Description: Analysis of standard repertoire with emphasis on form and structural harmonic analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3832 Elementary Music Methods
Prerequisites: MUSI 2722 with a minimum grade of "C".
Description: An overview of effective methods, techniques and materials for teaching music to children in the elementary grades. Theories of child development and implications on music learning; current philosophies or approaches for teaching music (Kodaly, Orff, and Dalcroze); designing and teaching musical activities through which children learn musical concepts and develop musical skills. Previously offered as MUSI 2832.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3842 Marching Bands Methods
Prerequisites: MUSI 2722 with a minimum grade of "C" and (MUSI 3832 with a minimum grade of "C" or concurrent enrollment) and (concurrent enrollment in MUSI 2610 or MUSI 3610 (marching band)).
Description: Organizational responsibilities and charting for public school marching bands. Must be taken concurrently with MUSI 2610 or MUSI 3610 (marching band).
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3852 Secondary Instrumental Methods
Prerequisites: MUSI 3712 with a minimum grade of "C" and MUSI 3832 with a minimum grade of "C".
Description: This course is designed to give instrumental music education majors an in-depth look at administering a public school band program, including history and wind literature, literature selection, preparing budgets, preparing commissioning projects, working with administration, school boards and parent groups, organizational responsibilities, and charting for public school marching bands.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3862 String Orchestra Methods
Prerequisites: MUSI 2722 with a minimum grade of "C".
Description: This course is designed to give string music education majors an in-depth look at administering a public school orchestra program, including history and string literature, literature selection, preparing budgets, working with administration, school boards and parent groups, organizational responsibilities, and concepts specifically related to string teaching and learning.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3873 History of Music from 1800-Present
Description: Aids music majors and other qualified students in understanding the musical styles, forms, schools, composers and instruments that developed in Western civilization from the Romantic period through to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3883 History of Popular Music
Description: A survey of popular music, the course traces its developments and explores its derivatives until present day. In addition to music analysis, discussion on the subject explores the appeal of popular music, the means of dissemination, and society. May not be used for degree credit with MUSI 2763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 3901 Junior Recital
Prerequisites: Junior standing and consent of major applied music teacher.
Description: The objective of this course is to prepare and perform a junior recital that meets the necessary artistic and technical standards expected of a junior music major.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 3932 Intermediate Music Methods
Prerequisites: MUSI 3832 with a minimum grade of "C".
Description: Second in a series of three methods courses for vocal music education majors. Hands-on teaching experiences. Topics include curriculum design and evaluation; technology for music instruction; repertoire selection and effective rehearsal techniques. Previously offered as MUSI 2832.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4042 Collaborative Piano I
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to various collaborative works focusing on vocal repertoire from early Italian songs written in the late Renaissance era through the music of our times. This course will feature class performance and coaching sessions, and discussions of style and practical rehearsal techniques, with listening and reading assignments. Through the course, students will learn the art of collaborating with vocalists. No credit for students with credit in MUSI 5042.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4051 Introduction to Woodwind Repair and Maintenance
Description: Beginning woodwind repair and maintenance involves hands-on instruction on basic repair for woodwind instruments, including saxophone, clarinet, and flute. Woodwind repair experts will guest lecture in addition to the primary instructor.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4080 Music Composition
Prerequisites: Consent of instructor, MUSI 2080.
Description: Practical experience in musical composition. Offered for 2 credit hours, maximum of 12.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4100 Music Industry Internship
Prerequisites: 90 credit hours and minimum 2.50 GPA in all music and business courses.
Description: Directed practical experiences in an approved work situation related to the music industry. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4142 Collaborative Piano II
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to duo/chamber repertoire written for piano with various instruments. This course will feature class performances, discussions of style and practical techniques in rehearsal, and recital performances as a collaborative pianist. The course will focus on repertoire from the Baroque era to the present, including works for solo instruments and piano, duo sonatas, character pieces, and chamber music for 3 or more instruments. May not be used for degree credit with MUSI 5142.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4250 Major Organ
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4260 Major Piano
Prerequisites: MUSI 3260 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4270 Major Voice
Prerequisites: MUSI 3270 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4280 Major Violin
Prerequisites: MUSI 3280 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4290 Major Viola
Prerequisites: MUSI 3290 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4300 Major Cello
Prerequisites: MUSI 3300 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4310 Major Double Bass
Prerequisites: MUSI 3310 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4340 Major Flute
Prerequisites: MUSI 3340 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4350 Major Oboe
Prerequisites: MUSI 3350 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4360 Major Clarinet
Prerequisites: MUSI 3360 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4370 Major Saxophone
Prerequisites: MUSI 3370 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4380 Major Bassoon
Prerequisites: MUSI 3380 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4390 Major Trumpet
Prerequisites: MUSI 3390 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4400 Major French Horn
Prerequisites: MUSI 3400 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4410 Major Trombone
Prerequisites: MUSI 3410 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4420 Major Euphonium
Prerequisites: MUSI 3420 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4430 Major Tuba
Prerequisites: MUSI 3430 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4440 Major Percussion
Prerequisites: 3440 and successful completion of recital attendance requirements.
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4450 Major Harpsichord
Description: Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4480 Elective Applied Lessons
Prerequisites: Permission of instructor.
Description: Applied lessons for non-music majors or for majors studying secondary instruments.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4490 Major Applied Lessons
Prerequisites: Pass Upper Division Exam and MUSI 2490.
Description: Offered for variable credit, 1-4 credit hours, maximum of 24 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Music
Additional Fees: Music Instruction fee of $35 per credit hour and Music Instruction fee of $24 apply.

MUSI 4600 Chamber Ensembles
Description: Combinations of voice, keyboard, and orchestral instruments for performing chamber music, music theater and duo piano repertoire. Same course as MUSI 5600. Offered for fixed credit, 1 fixed credit hour, maximum of 36 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Music

MUSI 4700 Piano Accompanying
Prerequisites: Music major status or consent of instructor.
Description: The course is designed for piano students to develop techniques needed to study, analyze, and perform as accompanists. The piano majors will have one-hour weekly coaching sessions and learn various duo repertoire in collaborations with a vocalist and an instrumentalist assigned by the instructor of the course throughout the semester. Same course as MUSI 5700.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4742 Student Teaching Seminar in Music Education
Prerequisites: MUSI 3832 with a minimum grade of "C".
Description: This course is designed to foster the growth of skills necessary for successful music teaching in the public schools. Taught in conjunction with MUSI 4940, student teaching in the public schools. In-class seminars and on-line discussions will focus on current trends, issues, and challenges facing music educators today. Previously offered as MUSI 3743.
Credit hours: 2
Contact hours: Lecture: 1 Contact: 2 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Music

MUSI 4810 Problems in Musical Composition
Prerequisites: MUSI 1542 with a minimum grade of "C" or MUSI 1543 with a minimum grade of "C".
Description: Practical experience in musical composition. May not be used for degree credit with MUSI 5810. Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4812 Performance and Analysis
Prerequisites: Junior standing as a music major or consent of instructor.
Description: An overview of the relationship between performance and analysis within the field of music theory. No degree credit for students with credit in MUSI 5812.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4840 Special Studies in Music Literature
Prerequisites: Junior standing or consent of instructor.
Description: Survey of music literature suitable for teaching various levels in applied music. Offered for fixed credit, 2 fixed credit hours, maximum of 4 credit hours.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4842 Choral Literature for the Classroom
Prerequisites: MUSI 3732 with a minimum grade of "C".
Description: Exploration of the vast amount of choral literature available to the choral conductor. Includes repertoire for all ages and all voices.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4890 Special Studies in Music Pedagogy
Prerequisites: Junior standing or consent of instructor.
Description: Survey of music pedagogical methods suitable for various levels and types of applied music. May not be used for degree credit with MUSI 5890. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4901 Senior Recital
Prerequisites: Senior standing and permission of major applied music teacher.
Description: The objective of this course is to prepare and perform a senior recital that meets the necessary artistic and technical standards expected of a senior music major.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4912 Orchestration and Arranging
Prerequisites: Upper-division standing as a music major or consent of instructor.
Description: Orchestrating for instrumental ensembles and arranging for choral ensembles.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4940 Student Teaching in Public School Music
Prerequisites: Full admission to Professional Education.
Description: Directed observation, seminars, and supervised student teaching in selected elementary and secondary music programs. Graded on a pass-fail basis. Offered for variable credit, 6-10 credit hours, maximum of 10 credit hours.
Credit hours: 6-10
Contact hours: Contact: 6-10 Other: 6-10
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music
Additional Fees: Music Teaching fee of $25 applies.

MUSI 4952 Music in the School Curriculum
Description: Aims, content and motivation of the music education program in elementary and secondary schools from the standpoint of the classroom teacher, music specialist and administrator. May not be used for degree credit with MUSI 5952.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4962 Music Education Seminar
Description: Research into latest developments of public school choral and instrumental music. May not be used for degree credit with MUSI 5942.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4972 Post Tonal Analysis
Prerequisites: MUSI 2552 with minimum grade of "C" and successfully pass the Upper-Division Theory Barrier Exam.
Description: Techniques for the analysis of music from the 20th and 21st centuries, including set analysis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Music

MUSI 4990 Selected Studies in Music and Music Education
Description: Short-term area studies in music and music education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music

MUSI 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided program in musicological research, music composition, or music performance, ending with an honors project under the direction of a faculty member with a second faculty member to complete an examining committee. Required for graduation with departmental honors in music.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Music
General Education and other Course Attributes: Honors Credit

MUSI 5002 Final Degree Performance
Description: Prepare and perform or conduct a public concert or recital of significant repertoire.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5012 Final Degree Project and Oral Examination
Description: Final capstone project in performance or conducting as assigned by disciplinary area, and cumulative oral examination before a designated committee of faculty. Detailed information on acceptable projects are found in the Graduate Music Student Handbook. Previously offered as MUSI 5004.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5022 Graduate Theory Review
Description: Designed as a review of musical analysis materials and techniques necessary to prepare students for further studies in music analysis at the graduate level. Enrollment is mandated or encouraged based on entrance exam scores.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5032 Graduate History Review
Description: A review of the development of Western European art music from the medieval era to the present day to enable graduate students to study music history at the graduate level. Enrollment is mandated or encouraged based upon entrance exam scores.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5042 Collaborative Piano I
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to various collaborative works focusing on vocal repertoire from early Italian songs written in the late Renaissance era through the music of our times. This course will feature class performance and coaching sessions, and discussions of style and practical rehearsal techniques, with listening and reading assignments. Through the course, students will learn the art of collaborating with vocalists. May not be used for degree credit with credit in MUSI 4042.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5051 Introduction to Woodwind Repair and Maintenance
Description: Beginning woodwind repair and maintenance involves hands-on instruction on basic repair for woodwind instruments, including saxophone, clarinet, and flute. Woodwind repair experts will guest lecture in addition to the primary instructor.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5113 Introduction to Graduate Studies in Music
Prerequisites: Admission to Master of Music program.
Description: Understanding of the resources available for research in the field of music. Explanation of the types of research materials needed for classes in the Master of Music degree program, as well as providing the groundwork for success in the professional world as a music educator and performer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5142 Collaborative Piano II
Prerequisites: Music major status or consent of instructor.
Description: This course introduces pianists to duo/chamber repertoire written for piano with various instruments. This course will feature class performances, discussions of style and practical techniques in rehearsal, and recital performances as a collaborative pianist. The course will focus on repertoire from the Baroque era to the present, including works for solo instruments and piano, duo sonatas, character pieces, and chamber music for 3 or more instruments. May not be used for degree credit with MUSI 4142.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5480 Lessons in Applied Music (Minor Field)
Prerequisites: Bachelor's degree or equivalent performance level in applied major field.
Description: Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5490 Lessons in Applied Music (Major Field)
Prerequisites: Bachelor's degree or equivalent performing level in applied major field.
Description: Private Lessons. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5512 Advanced Studies in Music Literature and Pedagogy I
Prerequisites: MUSI 3753, MUSI 3763 or equivalent.
Description: Techniques of successful programming, teaching and performance of ensemble literature through a survey of repertoire appropriate to the student's chosen medium.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5522 Advanced Studies in Music Literature and Pedagogy II
Prerequisites: MUSI 3753, MUSI 3763 or equivalent.
Description: A continuation of MUSI 5512, with emphasis upon music of the 20th century and its attendant specialized performance techniques.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5600 Chamber Ensembles
Description: Combinations of voice, keyboard, orchestral instruments for performing chamber music, music theater and duo piano repertoire. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5610 University Bands
Description: Advanced study of a wide variety of music in all areas of band literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5620 Symphony Orchestra
Description: Advanced study of a wide variety of music in all areas of orchestral literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 4-8 Contact: 4-8
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5630 University Choral Ensembles
Description: Advanced study of a wide variety of music in all areas of choral literature. Offered for variable credit, 1-2 credit hours, maximum of 36 credit hours.
Credit hours: 1-2
Contact hours: Lab: 2-4 Contact: 2-4
Levels: Graduate
Schedule types: Lab
Department/School: Music

MUSI 5700 Piano Accompanying
Prerequisites: Music major status or consent of instructor.
Description: The course is designed for piano students to develop techniques needed to study, analyze, and perform as accompanists. The piano majors will have one-hour weekly coaching sessions and learn various duo repertoire in collaborations with a vocalist and an instrumentalist assigned by the instructor of the course throughout the semester. Same course as MUSI 4700.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5712 Advanced Studies in Conducting I
Prerequisites: MUSI 3712 and MUSI 3722 or equivalent.
Description: Acquisition of an expressive conducting gestural vocabulary as it relates to the student's chosen medium.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5722 Advanced Studies in Conducting II
Prerequisites: MUSI 5712.
Description: A continuation of MUSI 5712 focusing upon the gestural vocabulary as it relates to the specific complexities of contemporary music.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5733 Techniques of Pedagogy and Performance
Prerequisites: MUSI 3712 and MUSI 3722 or equivalent.
Description: Advanced techniques and modes for preparing music for performance.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5742 Conducting Practicum
Prerequisites: MUSI 5712, MUSI 5722.
Description: Supervised conducting opportunities with major OSU ensembles or approved off-campus ensembles.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5750 Seminar in Music History
Prerequisites: MUSI 3753 and MUSI 3763 or equivalent.
Description: Major European musical genres and pedagogical methods of a specified time in musical history. Acquaintance with source materials from the specified period to facilitate a knowledge of performance of genres studied. Topics vary. Previously offered as MUSI 5753. Offered for varied, 1-3 varied credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5810 Problems in Musical Composition
Prerequisites: Consent of instructor.
Description: Practical experience in musical composition. May not be used for degree credit with MUSI 4810.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5812 Performance and Analysis
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: An overview of the relationship between performance and analysis within the field of music theory. No degree credit for students with credit in MUSI 4812.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5842 Music Repertory
Description: Survey of music literature suitable for teaching various levels in applied music.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5890 Special Studies in Music Pedagogy
Description: Survey of music pedagogical methods suitable for various levels and types of applied music. May not be used for degree credit with MUSI 4890.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

MUSI 5942 Music Education Seminar
Description: Research into latest developments of public school choral and instrumental music. May not be used for degree credit with MUSI 4942.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5952 Music in the School Curriculum
Description: Aims, content and motivation of the music education program in elementary and secondary schools from the standpoint of the classroom teacher, music specialist and administrator. May not be used for degree credit with MUSI 4952.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5962 Analytical Techniques in Music I
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: A critical survey of important analytical approaches to tonal and post tonal music.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5972 Analytical Techniques in Music II
Prerequisites: Passing score on Graduate Theory Placement Exam or MUSI 5022.
Description: A continuation of MUSI 5962. Topics will include Schenkerian analyses, set theory, and other contemporary analytical approaches to post tonal music.
Credit hours: 2
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Music

MUSI 5990 Selected Studies in Music
Description: Short-term area studies in music and music education. Offered for variable credit, 1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Music

Undergraduate Programs

- Music Education: Instrumental/Vocal Certification, BM (p. 1699)
- Music Industry, BS (p. 1704)
- Music, BA (p. 1707)
- Music: Jazz Performance, BM (p. 1710)
- Music: Music Composition, BA (p. 1713)
- Music: Performance, BM (p. 1716)

Graduate Programs

The Master of Music offers the performer and conductor the opportunity to further their professional studies and/or prepare for study at the doctoral level.

For the student pursuing the conducting option, we stress challenging studies in conducting skills, repertoire and rehearsal techniques. Degree candidates will focus on their particular area of specialty and will have numerous opportunities to conduct appropriate choirs, wind bands, orchestras and string groups, and chamber ensembles.

As a part of specializing on their instruments, students who choose the applied music option will develop a refined knowledge of the literature composed for that instrument and will also learn the teaching and technical approaches that have been developed for that musical medium. Performing opportunities, both solo and collaborative, are an important component of the degree candidate's studies.

The Master of Music is a 32-hour degree. Each option includes courses in music research and bibliography, music theory, and music history. Elective credits that are built into each degree option permit the student to explore additional interests. Each degree candidate will complete a final project designed in collaboration with their primary professor. A final oral examination is also part of the degree requirements.

Admission Requirements

Prospective students must have earned a bachelor's degree or the equivalent. Students interested in the conducting option must audition on campus, or submit a video recording of their conducting. Students interested in the applied music option must audition on campus or submit an audio or video recording of a recent performance (minimum of 20 minutes of music).

Financial Assistance

The Michael and Anne Greenwood School of Music offers a variety of assistantships with areas of specialization including music appreciation, class piano, instrumental techniques, accompanying, conducting, and music technology, among others. Additional scholarships may be awarded through the Greenwood School of Music.

Minors

- Applied Music (APMU), Minor (p. 1695)
- Jazz (JAZZ), Minor (p. 1696)
- Music (MUSI), Minor (p. 1697)
- Music Composition and Theory (MUCT), Minor (p. 1698)

Faculty

Lucia Unrau, DMA—Professor and Director
Regents Professor: Brant Adams, PhD
Professors: Wayne Bovenschen, MM; Paul R. Compton, MM; Anné-Marie Condacse, DMA; Bradley Genevro, DMA; April Golliver-Mohiuddin, MM; Christopher Haygood, DMA; Igor Karača, DMA; Heather Shea Lanners, MM; Lanette López-Compton, MM; Thomas Poole, DMA; Howard Potter, DMA; D. Allen Scott, PhD
Associate Professors: Joseph Cooper, DMA; Erin K. Murphy, DMA; Mark E. Perry, PhD; Ryan Robinson, DMA; Steve P. Sanders, MM; Jacqueline Skara, PhD
Assistant Professors: Christiaan Bester, DMA; Wendy Bickford, MM; Glenn Dewey, MM; Allan Goodwin, MM; David Hier, PhD; Ben Kambs, PhD; Johnny Salinas, DMA; Sarah Sarver, PhD
Clinical Professor: Nataša Kaurin-Karača, MM
Teaching Assistant Professor: Tomomi Sato, DMA
Visiting Assistant Professor: Livia De Moraes, PhD; Kevin Flynn, DMA; Sun Huh, DM; Mitchell Martinez, MM; Shawn Seguin, DMA; Elizabeth Toles, MM; Christine Wu, DMA
Lecturers: Pi-Ju Chiang, MM; Elena Lyalina, DMA
Adjunct Professors: Megan Barth Argo, MM; Trent Bell; Michael Bremo, MM; Julie Goodwin, MM; Max Holm; Zac Maloy; Julie McCoy, MM; Allison Ringler, MM; Luke Tallon

Applied Music (APMU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clinton Wieden, 102B GSM, 405-744-2966

Minimum Grade Point Average in Minor Coursework: 2.00 with no grade below "C".
Total Hours: 15

Code	Title	Hours
Performance		
12 hours from the following, with minimum of 4 hours from each category:		12
Applied Lessons:		
MUSI 2480	Elective Applied Lessons	
MUSI 2490	Major Applied Lessons	
MUSI 4480	Elective Applied Lessons	
MUSI 4490	Lessons in Applied Music (Major Field)	
JAZZ 3010	Applied Jazz Lessons	
Ensembles:		
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	
MUSI 4042	Collaborative Piano I	
MUSI 4600	Chamber Ensembles	
JAZZ 3610	Jazz Orchestra	
JAZZ 3620	Jazz Ensemble	
JAZZ 4600	Jazz Combos	
History and Culture		
Select one course from (2-3 hours): [1]		2-3
MUSI 2573	Introduction to Music (H)	
MUSI 2763	History of Rock and Roll (H)	
MUSI 2783	American Popular Music (H)	
MUSI 3543	Music and Culture of Northern Italy (H)	
MUSI 3572	History of Opera in Society (H)	
MUSI 3573	America's Ethnic Music (DH)	
MUSI 3582	Survey of World Musics	
MUSI 3583	Traditional World Music (H)	
MUSI 3873	History of Music from 1800-Present	
MUSI 3883	History of Popular Music	
MUSI 4840	Special Studies in Music Literature	
MUSI 4842	Choral Literature for the Classroom	
JAZZ 2773	History of Jazz (H)	
Electives		
Select one course from (1-2 hours): [2]		1-2
MUSI 1002	Fundamentals of Music	
MUSI 1011	Class Piano I (by instructor permission)	
MUSI 1532	Theory of Music I	
MUSI 4890	Special Studies in Music Pedagogy	
JAZZ 4002	Jazz Theory I	
Total Hours [1, 2]		**15**

1

If three-hour course is chosen in History and Culture, total hours increase by one.

2

If two-hour course is chosen from Electives, total hours increase by one.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Jazz (JAZZ), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clinton Wieden, 102B GSM, 405-744-2966

Total Hours: 19

Code	Title	Hours
JAZZ 2773	History of Jazz (H)	3
Four hours from:		4
JAZZ 3010	Applied Jazz Lessons	
JAZZ 4002	Jazz Theory I	2
JAZZ 4012	Jazz Theory II	2
Select 8 hours from the following:		8
JAZZ 1221	Jazz Class Piano	
JAZZ 3010	Applied Jazz Lessons (up to 4 hours)	
JAZZ 3610	Jazz Orchestra	
JAZZ 3620	Jazz Ensemble	
JAZZ 4102	Jazz Arranging & Composition I	
JAZZ 4112	Jazz Arranging and Composition II	
JAZZ 4600	Jazz Combos	
JAZZ 4972	Jazz Styles and Analysis	
Total Hours		**19**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Music (MUSI), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clinton Wieden, 102B GSM, 405-744-2966

Minimum Overall Grade Point Average: 2.00 with no grade below "C."
Total Hours: 24

Code	Title	Hours
Minor Requirements		
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 3763	History of Music from 1600-1800 [1]	3
MUSI 3873	History of Music from 1800-Present [1]	3
Applied Music		
Select 6 hours in primary instrument		6
Select 2 hours of piano [2]		2
Music Organizations		
Select 4 hours of the following:		4
MUSI 2610	University Bands I	
or MUSI 3610	University Bands II	
MUSI 2620	Symphony Orchestra I	
or MUSI 3620	Symphony Orchestra II	
MUSI 2630	University Choral Ensembles I	
or MUSI 3630	University Choral Ensembles II	
Total Hours		**24**

1

MUSI 3753 History of Music to 1600 (H) may be substituted for either MUSI 3763 History of Music from 1600-1800 or MUSI 3873 History of Music from 1800-Present.

2

If piano is primary applied area, 2 hours in a secondary applied area of the student's choosing.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Music Composition and Theory (MUCT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clinton Wieden, 102B GSM, 405-744-2966

Minimum grade and/or GPA: Minimum grade of "C" for all courses in the minor.
Total Hours: 18

Code	Title	Hours
Course Requirements		
MUSI 1002	Fundamentals of Music	2
MUSI 1532	Theory of Music I	2
MUSI 1542	Theory of Music II	2
MUSI 4810	Problems in Musical Composition [1]	8
Select four credit hours from the following:		4
MUSI 2013	Popular Music Theory	
MUSI 2552	Theory of Music III	
MUSI 2562	Theory of Music IV	
MUSI 3772	Counterpoint	
JAZZ 4002	Jazz Theory I	
JAZZ 4012	Jazz Theory II	
MUSI 4912	Orchestration and Arranging	
MUSI 4972	Post Tonal Analysis	
MUSI 4990	Selected Studies in Music and Music Education	
Total Hours		**18**

1

Option to substitute two credit hours with JAZZ 4102.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Music Education: Instrumental/Vocal Certification, BM

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 129

Code	Title	Hours
General Education Requirements		
See Academic Regulation 3.5 (p. 1007)		
English Composition		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
MUSI 3753	History of Music to 1600 (H) (Minimum grade of "C") [1]	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
or SOC 1113	Introductory Sociology (S)	
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**1**
Major Requirements		
Minimum 2.50 GPA in all MUSI, JAZZ, and Professional Education courses with a minimum grade of "C" in each course.		
Lower Division		
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
Eight hours from:		8
MUSI 2490	Major Applied Lessons	
Select 4 hours from:		4
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
Keyboard majors: select a minimum of 2 hours from lower-division Music Organization and up to 2 hours MUSI 4600 (Chamber Piano or Piano Duo).		
Upper Division		
MUSI 3582	Survey of World Musics	2
MUSI 3712	Basic Conducting	2
MUSI 3722	Advanced Ensemble Conducting	2
MUSI 3763	History of Music from 1600-1800	3
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
MUSI 4901	Senior Recital	1
MUSI 4972	Post Tonal Analysis	2
Five hours from:		5
MUSI 4490	Major Applied Lessons	
Professional Education		
EPSY 3413	Child and Adolescent Development	3
SPED 3202	Educating Exceptional Learners	2
MUSI 2722	Introduction to Music Education	2
MUSI 3832	Elementary Music Methods	2
MUSI 3640	Vocal Rehearsal Practicum	1
or MUSI 3641	Instrumental Rehearsal Practicum	
MUSI 4742	Student Teaching Seminar in Music Education	2
MUSI 4940	Student Teaching in Public School Music	6
Certification		
Select Instrumental or Vocal (p. 1700)		17

Hours Subtotal	**82**
Electives	**6**
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
Hours Subtotal	**6**
Total Hours	**129**

1

College and Departmental Requirements that may be used to meet General Education Requirements

Certification

Instrumental

Code	Title	Hours
Select three hours from:		3
MUSI 1011	Class Piano I	
MUSI 1021	Class Piano II	
MUSI 2010	Piano Class Lessons	
MUSI 2480	Elective Applied Lessons	
MUSI 4480	Elective Applied Lessons	
Select 5 hours of Instrumental Techniques Classes from:		5
MUSI 1001	Percussion Techniques	
MUSI 1071	Single Reed Techniques	
MUSI 1081	Double Reed Techniques	
MUSI 1091	High Brass Techniques	
MUSI 2051	High String Techniques	
MUSI 2061	Low String Techniques	
MUSI 2071	Flute Techniques	
MUSI 2091	Low Brass Techniques	
MUSI 3852	Secondary Instrumental Methods	2
or MUSI 3862	String Orchestra Methods	
MUSI 4912	Orchestration and Arranging	2
or JAZZ 4102	Jazz Arranging & Composition I	
Select 3 hours of upper-division large ensemble of the following:		3
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	
Choose one:		2
MUSI 3842	Marching Bands Methods (Winds, Brass, & Percussion)	
MUSI 4890	Special Studies in Music Pedagogy (2 hours, Strings)	

Vocal/Keyboard

Code	Title	Hours
Select 3 hours from:		3
MUSI 1011	Class Piano I	
MUSI 1021	Class Piano II	
MUSI 2010	Piano Class Lessons	
MUSI 2480	Elective Applied Lessons	
MUSI 4480	Elective Applied Lessons	
MUSI 1631	Introduction to Diction for Singers	1
MUSI 3732	Secondary Choral Methods	2
MUSI 3932	Intermediate Music Methods	2
MUSI 4842	Choral Literature for the Classroom	2
MUSI 4912	Orchestration and Arranging	2
or JAZZ 4102	Jazz Arranging & Composition I	
Choose Keyboard or Vocal		*5*
Keyboard		
MUSI 4480	Elective Applied Lessons (Elective Applied Voice, 2 hours)	
MUSI 4042	Collaborative Piano I	
MUSI 4600	Chamber Ensembles (1 hour - Chamber Piano)	
Vocal		
MUSI 3022	Piano Skills for Vocal Music Education Majors	
Select 3 hours upper-division large ensemble of the following:		
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	

All Music Majors must successfully complete an entrance audition, upper-division theory examination, keyboard proficiency examination, and six semesters of MUSI 0500 Student Recital Attendance and must participate in Applied Major Music Lessons each semester of residence. All wind and percussion instrumental music education majors must enroll in MUSI 2610 University Bands I/MUSI 3610 University Bands II Marching Band for a minimum of 3 semesters.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Instrumental

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 2490	Major Applied Lessons	2
MUSI 1011	Class Piano I	1
MUSI 2610	University Bands I	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH/STAT		3
Elective		1
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2490	Major Applied Lessons	2
MUSI 1021	Class Piano II	1
MUSI 2610	University Bands I	1
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
General Education courses		3
MUSI 2722	Introduction to Music Education	2
Elective		2
	Hours	**17**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2490	Major Applied Lessons	2
MUSI 2610	University Bands I	1
MUSI 2010	Piano Class Lessons	1
PSYC 1113 or SOC 1113	Introductory Psychology (S) or Introductory Sociology (S)	3
MUSI 3753	History of Music to 1600 (H)	3
Natural Science (N)		2
General Education courses		1
Elective		2
	Hours	**18**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 2490	Major Applied Lessons	2
MUSI 2610	University Bands I	1
MUSI Techniques Classes		2
MUSI 3763	History of Music from 1600-1800	3
SPED 3202	Educating Exceptional Learners	2
General Education courses (Natural Science + L)		4
Elective		1
	Hours	**18**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3832	Elementary Music Methods	2
MUSI 4490	Major Applied Lessons	2
MUSI 3610	University Bands II	1
MUSI 3712	Basic Conducting	2
MUSI 3783	Form And Analysis	3
MUSI 3582	Survey of World Musics	2
MUSI 3873	History of Music from 1800-Present	3
POLS 1113	American Government	3
	Hours	**18**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI Techniques Classes		2
MUSI 3852 or MUSI 3862	Secondary Instrumental Methods or String Orchestra Methods	2
MUSI 3610	University Bands II	1
MUSI 3722	Advanced Ensemble Conducting	2
MUSI 4490	Major Applied Lessons	2
MUSI 4912 or JAZZ 4102	Orchestration and Arranging or Jazz Arranging & Composition I	2
MUSI 4972	Post Tonal Analysis	2
MUSI 3641	Instrumental Rehearsal Practicum	1
SPCH 2713	Introduction to Speech Communication (S)	3
	Hours	**17**
Senior		
Fall		
MUSI 3842 or MUSI 4890	Marching Bands Methods or Special Studies in Music Pedagogy	2
MUSI Techniques Classes		1
MUSI 4901	Senior Recital	1
MUSI 4490	Major Applied Lessons	1
HIST 1103	Survey of American History	3
MUSI 3610	University Bands II	1
EPSY 3413	Child and Adolescent Development	3
General Education courses [1]		3
General Education courses		3
	Hours	**18**
Spring		
MUSI 4742	Student Teaching Seminar in Music Education	2
MUSI 4940	Student Teaching in Public School Music	6
	Hours	**8**
	Total Hours	**129**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Keyboard

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 2490	Major Applied Lessons	2
MUSI 2480	Elective Applied Lessons	1
MUSI 1631	Introduction to Diction for Singers	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MUSI 26XX	Major Ensemble	1

MATH/STAT		3
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2490	Major Applied Lessons	2
MUSI 2480	Elective Applied Lessons	1
MUSI 26XX	Major Ensemble	1
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
General Education courses		3
MUSI 2722	Introduction to Music Education	2
Elective		1
	Hours	**16**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2490	Major Applied Lessons	2
MUSI 4700	Piano Accompanying	1
MUSI 2480	Elective Applied Lessons	1
PSYC 1113 or SOC 1113	Introductory Psychology (S) or Introductory Sociology (S)	3
MUSI 3753	History of Music to 1600 (H)	3
SPCH 2713	Introduction to Speech Communication (S)	3
Elective		2
	Hours	**18**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 2490	Major Applied Lessons	2
MUSI 4700	Piano Accompanying	1
SPED 3202	Educating Exceptional Learners	2
MUSI 3763	History of Music from 1600-1800	3
POLS 1113	American Government	3
General Education courses (Natural Science + L)		4
	Hours	**18**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3832	Elementary Music Methods	2
MUSI 4490	Major Applied Lessons	2
MUSI 3712	Basic Conducting	2
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
HIST 1103	Survey of American History	3
Elective		3
	Hours	**18**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 3932	Intermediate Music Methods	2
MUSI 4490	Major Applied Lessons	2
MUSI 3722	Advanced Ensemble Conducting	2
MUSI 3732	Secondary Choral Methods	2
MUSI 4912 or JAZZ 4102	Orchestration and Arranging or Jazz Arranging & Composition I	2
MUSI 4972	Post Tonal Analysis	2
General Education courses (Natural Science)		2
General Education course		1
MUSI 3640	Vocal Rehearsal Practicum	1
MUSI 4042	Collaborative Piano I	2
	Hours	**18**
Senior		
Fall		
MUSI 4480	Elective Applied Lessons	2
MUSI 4842	Choral Literature for the Classroom	2
MUSI 4901	Senior Recital	1
MUSI 4490	Major Applied Lessons	1
MUSI 4600	Chamber Ensembles	1
EPSY 3413	Child and Adolescent Development	3
MUSI 3582	Survey of World Musics	2
General Education courses [1]		3
General Education courses		3
	Hours	**18**
Spring		
MUSI 4742	Student Teaching Seminar in Music Education	2
MUSI 4940	Student Teaching in Public School Music	6
	Hours	**8**
	Total Hours	**129**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Vocal

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 2490	Major Applied Lessons	2
MUSI 1011	Class Piano I	1
MUSI 1631	Introduction to Diction for Singers	1
MUSI 2630	University Choral Ensembles I	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH/STAT		3
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2490	Major Applied Lessons	2
MUSI 1021	Class Piano II	1
MUSI 2630	University Choral Ensembles I	1
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
General Education courses		3
Elective		3
MUSI 2722	Introduction to Music Education	2
	Hours	**18**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2490	Major Applied Lessons	2

MUSI 2630	University Choral Ensembles I	1
MUSI 2010	Piano Class Lessons	1
MUSI 3753	History of Music to 1600 (H)	3
PSYC 1113 or SOC 1113	Introductory Psychology (S) or Introductory Sociology (S)	3
HIST 1103	Survey of American History	3
	Hours	**16**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 2490	Major Applied Lessons	2
MUSI 2630	University Choral Ensembles I	1
SPED 3202	Educating Exceptional Learners	2
MUSI 3763	History of Music from 1600-1800	3
POLS 1113	American Government	3
SPCH 2713	Introduction to Speech Communication (S)	3
Elective		1
	Hours	**18**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3832	Elementary Music Methods	2
MUSI 4490	Major Applied Lessons	2
MUSI 3630	University Choral Ensembles II	1
MUSI 3712	Basic Conducting	2
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
General Education courses [1]		3
MUSI 3022	Piano Skills for Vocal Music Education Majors	2
	Hours	**18**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 3932	Intermediate Music Methods	2
MUSI 4490	Major Applied Lessons	2
MUSI 3630	University Choral Ensembles II	1
MUSI 3722	Advanced Ensemble Conducting	2
MUSI 3732	Secondary Choral Methods	2
MUSI 4912 or JAZZ 4102	Orchestration and Arranging or Jazz Arranging & Composition I	2
MUSI 4972	Post Tonal Analysis	2
MUSI 3640	Vocal Rehearsal Practicum	1
General Education courses	(Natural Science + L)	4
	Hours	**18**
Senior		
Fall		
General Education courses	(Natural Science)	2
General Education courses		1
MUSI 4842	Choral Literature for the Classroom	2
MUSI 4901	Senior Recital	1
MUSI 4490	Major Applied Lessons	1
MUSI 3630	University Choral Ensembles II	1
MUSI 3582	Survey of World Musics	2
EPSY 3413	Child and Adolescent Development	3
General Education course		3
Elective		2
	Hours	**18**
Spring		
MUSI 4742	Student Teaching Seminar in Music Education	2
MUSI 4940	Student Teaching in Public School Music	6
	Hours	**8**
	Total Hours	**129**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Music Industry, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, except MATH 1493) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1]	3
MKTG 3213	Marketing (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
MUSI 3873	History of Music from 1800-Present	3
Natural & Mathematical Sciences		
STAT 2013	Elementary Statistics (Q)	3
Select 6 additional hours		6
See note 2.b.		
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum 2.50 GPA in all MUSI, JAZZ, MSIN, and Business courses with a minimum grade of "C" in each MUSI, JAZZ, MSIN, and Business course.		
MUSI 1002	Fundamentals of Music	2
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MSIN 2012	Popular Music Theory I	2
MUSI 1623	Introduction to Music Business	3
MSIN 2022	Popular Music Theory II	2
MSIN 3142	Sound Reinforcement	2
Select 4 hours from:		4
MUSI 2490	Major Applied Lessons	
MUSI 4490	Major Applied Lessons	
Select 2 hours from:		2
MUSI 1011	Class Piano I	
or MSIN 1011	Class Piano I	
MUSI 1021	Class Piano II	
or MSIN 1021	Class Piano II	
MUSI 2010	Piano Class Lessons	
MUSI 2480	Elective Applied Lessons	
MUSI 4480	Elective Applied Lessons	
Select 6 hours Music Organization from:		6
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	
MUSI 4600	Chamber Ensembles	
JAZZ 3610	Jazz Orchestra	
JAZZ 3620	Jazz Ensemble	
JAZZ 4600	Jazz Combos	
ACCT 2103	Financial Accounting	3
or ACCT 2003	Survey of Accounting	
ECON 2003	Microeconomic Principles for Business	3
or ECON 2103	Introduction to Microeconomics (S)	
ECON 2203	Introduction to Macroeconomics	3
MUSI 3012	Advanced Music Production	2
MUSI 3582	Survey of World Musics	2
MUSI 3883	History of Popular Music	3

MSIN 3002	Fundamentals of Music Production	2
MSIN 3012	Studio Music Production	2
MSIN 3052	Social Media for Music Industry	2
MSIN 3132	Lighting for Music	2
4 hours from the following or any upper-division BADM, EEE, FIN, HTM, MGMT, or MKTG		4
MSIN 4990	Special Topics in Music Industry	
MUSI 3592	Introduction to Music Technology	
MUSI 3672	Music Technology II	
LSB 3213	Legal and Regulatory Environment of Business	3
MUSI 4100	Music Industry Internship	6
Hours Subtotal		**64**
Electives		
Select 3 hours.		3
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**3**
Total Hours		**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Must successfully complete an entrance audition, keyboard proficiency examination, and six semesters of MUSI 0500 Student Recital Attendance.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or Higher, except 1493)	3
MUSI 0500	Student Recital Attendance	0
MUSI 1002	Fundamentals of Music	2
Music Lessons and Ensemble		2
General Education and College courses		3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213	Composition II	3
MUSI 0500	Student Recital Attendance	0
MUSI 1532	Theory of Music I	2
MUSI 1623	Introduction to Music Business	3
Music Lessons and Ensemble		2
General Education courses		3
MUSI 1011	Class Piano I	1
	Hours	**14**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
ECON 2103 or ECON 2003	Introduction to Microeconomics (S) or Microeconomic Principles for Business	3
MSIN 2012	Popular Music Theory I	2
STAT 2013	Elementary Statistics (Q)	3
Music Lessons and Ensemble		2
General Education and College courses		3
MUSI 1021	Class Piano II	1
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
Music Lessons and Ensemble		2
MSIN 2022	Popular Music Theory II	2
ECON 2203	Introduction to Macroeconomics	3
General Education course		3
ACCT 2103 or ACCT 2003	Financial Accounting or Survey of Accounting	3
	Hours	**14**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MSIN 3002	Fundamentals of Music Production	2
MSIN 3052	Social Media for Music Industry	2
MSIN 3142	Sound Reinforcement	2
General Education and College courses		9
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MSIN 3012	Studio Music Production	2
MUSI 3883	History of Popular Music	3
MSIN 4990	Special Topics in Music Industry	2
MSIN 3132	Lighting for Music	2
MKTG 3213	Marketing (S)	3
General Education and College courses		3
	Hours	**15**
Senior		
Fall		
MUSI 3012	Advanced Music Production	2
MUSI 3582	Survey of World Musics	2
MUSI 3873	History of Music from 1800-Present	3
MGMT 3013	Fundamentals of Management (S)	3
Elective courses		3
Ensemble		1
	Hours	**14**
Spring		
Ensemble		1
LSB 3213	Legal and Regulatory Environment of Business	3
MSIN 4990	Special Topics in Music Industry	2
General Education courses		7
	Hours	**13**
Summer		
MUSI 4100	Music Industry Internship	6
	Hours	**6**
	Total Hours	**120**

Music, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
MUSI 3753	History of Music to 1600 (H) (Minimum grade of "C") [1]	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA with minimum grade of “C” in all MUSI and JAZZ courses.		
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 2490	Major Applied Lessons	4
Select 2 hours of Applied Minor Music Lessons from:		2
MUSI 1011	Class Piano I	
MUSI 1021	Class Piano II	
MUSI 2010	Piano Class Lessons	
MUSI 2480	Elective Applied Lessons	
MUSI 4480	Elective Applied Lessons	
Select 4 hours of Music Organization of the following:		4
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MUSI 3582	Survey of World Musics	2
MUSI 3763	History of Music from 1600-1800	3
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
MUSI 4490	Major Applied Lessons	4
Select 2 hours of the following:		2
MUSI 3712	Basic Conducting	
MUSI 4912	Orchestration and Arranging	
MUSI 4972	Post Tonal Analysis	
Select one of the following majors:		2
Instrumental and Voice Majors:		
Select 2 hours of upper-division large ensemble from the following:		
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	
Keyboard Majors:		
MUSI 4042	Collaborative Piano I	
or MUSI 4142	Collaborative Piano II	

Hours Subtotal	**41**
Electives	
Select 17 hours	17
All electives plus 5 hours general education or college requirements, in addition to MUSI 3753, may need to be upper-division and must include 6 hours upper-division general education outside major department. (see note 2.c.)	
4 hours need to be liberal arts or liberal science from ART, ASL, BIOL, CHEM, CS, ENGL, FLL, FREN, GEOG, GEOL, GREK, GRMN, HIST, LATN, MATH, MICR, PBIO, PHIL, PHYS, POLS, PSYC, RUSS, SOC, SPAN, SPCH, STAT, TH.	
Hours Subtotal	**17**
Total Hours	**120**

All Music Majors must successfully complete an entrance audition, upper-division theory examination, keyboard proficiency examination, and six semesters of MUSI 0500 Student Recital Attendance.

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113	Composition I	3
MATH or STAT course designated (A)		3
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
Music Lessons and Ensemble		3
	Hours	**13**
Spring		
ENGL 1213	Composition II	3
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
Music Lessons and Ensemble		3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 3753	History of Music to 1600 (H)	3
Music Lessons and Ensemble		2
1713 First Semester Foreign Language		3
General Education and Elective courses		4
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 3763	History of Music from 1600-1800	3
Music Lessons and Ensemble		2
1813 Second Semester Foreign Language		3
General Education and Elective courses		6
	Hours	**17**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
Music Lessons		1
2000-level Foreign Language		3
College and Elective hours		6
	Hours	**16**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 3712 or MUSI 4912 or MUSI 4972	Basic Conducting or Orchestration and Arranging or Post Tonal Analysis	2
Music Lessons		1
General Education courses		10
	Hours	**13**
Senior		
Fall		
Music Lessons and Ensemble		2
MUSI 3582	Survey of World Musics	2
General Education, College, and Elective courses		12
	Hours	**16**
Spring		
Music Lessons and Ensemble		2
College and Elective courses		13
	Hours	**15**
	Total Hours	**120**

Music: Jazz Performance, BM

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
JAZZ 2773	History of Jazz (H) (Minimum grade of "C")	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
First Year Seminar		
(Transfer students with 15 hours exempt)		1
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**1**
Major Requirements		
Minimum 2.50 GPA with minimum grade of "C" in all MUSI and JAZZ courses.		
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
JAZZ 4002	Jazz Theory I	2
JAZZ 4012	Jazz Theory II	2
JAZZ 4102	Jazz Arranging & Composition I	2
JAZZ 4112	Jazz Arranging and Composition II	2
JAZZ 4972	Jazz Styles and Analysis	2
Select 2 hours of Applied Minor Music Lessons		2
MUSI 1011	Class Piano I	
JAZZ 1221	Jazz Class Piano	
MUSI 3582	Survey of World Musics	2
MUSI 3592	Introduction to Music Technology	2
MUSI 3672	Music Technology II	2
MUSI 3712	Basic Conducting	2
MUSI 3873	History of Music from 1800-Present	3
MUSI 3901	Junior Recital	1
MUSI 4901	Senior Recital	1
26 hours from:		26
JAZZ 3010	Applied Jazz Lessons	
8 hours from:		8
JAZZ 3610	Jazz Orchestra	
or JAZZ 3620	Jazz Ensemble	
6 hours from:		6
JAZZ 4600	Jazz Combos	
Hours Subtotal		**71**
Electives		**8**
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**8**
Total Hours		**120**

All Music Majors must successfully complete an entrance audition, upper-division theory examination, keyboard proficiency examination, and six semesters of MUSI 0500 Student Recital Attendance, and must enroll in piano until they have successfully completed the piano proficiency examination.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
3 hours MATH or STAT (Q)		3
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1011	Class Piano I	1
JAZZ 3010, 3610/3620: Lessons and Ensemble		3
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
JAZZ 1221	Jazz Class Piano	1
JAZZ 3010, 3610/3620: Lessons and Ensemble		3
General Education and Major courses [1]		6
	Hours	**16**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
JAZZ 4002	Jazz Theory I	2
JAZZ 2773	History of Jazz (H)	3
JAZZ 4600	Jazz Combos	1
JAZZ 3010, 3610/3620: Lessons and Ensemble		5
General Education courses [1]		3
	Hours	**14**

Spring		
MUSI 0500	Student Recital Attendance	0
JAZZ 4012	Jazz Theory II	2
JAZZ 4600 Combo		1
JAZZ 3010, 3610/3620: Lessons and Ensemble		5
General Education and Elective courses [1]		6
	Hours	**14**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3873	History of Music from 1800-Present	3
MUSI 3582	Survey of World Musics	2
JAZZ 4972	Jazz Styles and Analysis	2
JAZZ 4600 Combo		1
JAZZ 3010, 3610/3620: Lessons and Ensemble		5
Electives		3
	Hours	**16**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 3901	Junior Recital	1
JAZZ 4102	Jazz Arranging & Composition I	2
JAZZ 4600 Combo		1
JAZZ 3010, 3610/3620: Lessons and Ensemble		4
General Education courses [1]		7
	Hours	**15**
Senior		
Fall		
MUSI 3592	Introduction to Music Technology	2
MUSI 3712	Basic Conducting	2
JAZZ 4600 Combo		1
JAZZ 3010, 3610/3620: Lessons and Ensemble		5
General Education courses [1]		5
	Hours	**15**
Spring		
JAZZ 3010 App. Lessons		3
MUSI 4901	Senior Recital	1
MUSI 3672	Music Technology II	2
JAZZ 4112	Jazz Arranging and Composition II	2
JAZZ 4600 Combo		1
JAZZ 3610/3620: JAZZ Orc/Ensemble		1
General Education and Elective courses [1]		6
	Hours	**16**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for upper-division courses with International (I) and Diversity (D) dimensions.

Music: Music Composition, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
MUSI 3753	History of Music to 1600 (H) (Minimum grade of "C")	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
First Year Seminar		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
(See note 2.d.)		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum 2.50 GPA with minimum grade of "C" in all MUSI and JAZZ courses.		
MUSI 1011	Class Piano I	1
MUSI 1021	Class Piano II	1
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
or JAZZ 4002	Jazz Theory I	
MUSI 3582	Survey of World Musics	2
MUSI 3712	Basic Conducting	2
MUSI 3763	History of Music from 1600-1800	3
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
4 hours from:		4
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 3630	University Choral Ensembles II	
Music Composition		
MUSI 2010 & MUSI 3190	Piano Class Lessons and Secondary Piano	2
or MUSI 2490	Major Applied Lessons	
or JAZZ 3010	Applied Jazz Lessons	
Four hours from:		4
MUSI 2080	Music Composition	
Eight hours from:		8
MUSI 4080	Music Composition	
MUSI 3772	Counterpoint	2
MUSI 4912	Orchestration and Arranging	2
MUSI 4972	Post Tonal Analysis	2
Hours Subtotal		**51**
Electives		
Select 7 hours		7

All electives plus 3 hours of general education or college requirements, in addition to MUSI 3753, may need to be upper-division and must include 6 hours upper-division general education outside major department (see note 2.c.).	
Hours Subtotal	**7**
Total Hours	**120**

All Music Majors must successfully complete an entrance audition, upper-division theory examination, keyboard proficiency examination, and six semesters of MUSI 0500 Student Recital Attendance.

1

College and Departmental Requirements that may be used to meet General Education Requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1

MUSI 1532	Theory of Music I	2
MUSI 1011	Class Piano I	1
Music Lessons and Ensemble		2
ENGL 1113	Composition I	3
MATH or STAT course designated (Q)		3
	Hours	**13**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 1542	Theory of Music II	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1021	Class Piano II	1
Music Lessons and Ensemble		2
ENGL 1213	Composition II	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 3753	History of Music to 1600 (H)	3
Music Lessons and Ensemble		3
General Education and Elective courses		3
1713 First Semester Foreign Language		3
	Hours	**15**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 3763	History of Music from 1600-1800	3
Music Lessons and Ensemble		3
General Education and Elective courses		4
1813 Second Semester Foreign Language		3
	Hours	**16**
Junior		
Fall		
MUSI 0500	Student Recital Attendance	0
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
Music Lessons		2
College and Elective hours		3
2000-level Foreign Language		3
	Hours	**14**
Spring		
MUSI 0500	Student Recital Attendance	0
MUSI 4972	Post Tonal Analysis	2
Music Lessons		2
General Education courses		10
	Hours	**14**
Senior		
Fall		
Music Lessons and Ensemble		2
MUSI 3772	Counterpoint	2
MUSI 3712	Basic Conducting	2
MUSI 3582	Survey of World Musics	2
General Education, College, and Elective courses		9
	Hours	**17**
Spring		
Music Lessons and Ensemble		2
MUSI 4912	Orchestration and Arranging	2
College and Elective courses		12
	Hours	**16**
	Total Hours	**120**

Music: Performance, BM

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: Vocal-125 Keyboard/Instrumental-122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
MUSI 3753	History of Music to 1600 (H) (Minimum grade of "C") [1]	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**1**
Major Requirements		
Minimum 2.50 GPA with minimum grade of "C" in all MUSI and JAZZ courses.		
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 2552	Theory of Music III	2
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
Select 12 hours of Applied Major Music Lessons:		12
MUSI 2490	Major Applied Lessons	
Select 2 hours of Applied Minor Music Lessons		2
MUSI 1011	Class Piano I	
MUSI 1021	Class Piano II	
MUSI 2010	Piano Class Lessons	
MUSI 2480	Elective Applied Lessons	
MUSI 4480	Elective Applied Lessons	
Select 4 hours from the following:		4
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MUSI 3582	Survey of World Musics	2
MUSI 3712	Basic Conducting	2
MUSI 3763	History of Music from 1600-1800	3
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
MUSI 4972	Post Tonal Analysis	2
Select 14 hours of Applied Major Music Lessons:		14
MUSI 4490	Major Applied Lessons	
MUSI 3901	Junior Recital	1
MUSI 4901	Senior Recital	1
Select one group (p. 1717)		
Hours Subtotal		**81-84**
Electives		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**0**
Total Hours		
Vocal		*125*
Keyboard/Instrumental		*122*

1

College and Departmental Requirements that may be used to meet General Education Requirements.

All Music Majors must successfully complete an entrance audition, upper-division theory examination, keyboard proficiency examination, and

six semesters of MUSI 0500 Student Recital Attendance, and must enroll in piano until they have successfully completed the piano proficiency examination.

Groups

Keyboard

Code	Title	Hours
4 hours from:		4
MUSI 4840	Special Studies in Music Literature	
4 hours from:		4
MUSI 4890	Special Studies in Music Pedagogy	
MUSI 4042	Collaborative Piano I	2
MUSI 4142	Collaborative Piano II	2
2 hours from:		2
MUSI 4600	Chamber Ensembles	
Select 6 hours from one foreign language		6

Instrumental

Code	Title	Hours
MUSI 4840	Special Studies in Music Literature	2
MUSI 4890	Special Studies in Music Pedagogy	2
Ensemble: Select 8 hours upper-division Music Organization including at least 2 hours of Chamber Music		8
MUSI 3610	University Bands II	
MUSI 3620	Symphony Orchestra II	
MUSI 4600	Chamber Ensembles	
JAZZ 3610	Jazz Orchestra	
JAZZ 3620	Jazz Ensemble	
JAZZ 4600	Jazz Combos	
Select one of the following:		2
MUSI 3722	Advanced Ensemble Conducting	
MUSI 3772	Counterpoint	
MUSI 4912	Orchestration and Arranging	
MUSI 4480	Elective Applied Lessons	
Select 6 hours from one foreign language		6

Vocal

Code	Title	Hours
MUSI 4890	Special Studies in Music Pedagogy	2
Diction/Literature		
MUSI 3642	English and Italian Diction and Vocal Literature	2
MUSI 3652	French Diction and Vocal Literature	2
MUSI 3662	German Diction and Vocal Literature	2
Ensemble: Select 6 hours upper-division Music Organization including at least one hour of Chamber Music		6
MUSI 3630	University Choral Ensembles II	
MUSI 4600	Chamber Ensembles	
Select 9 hours of foreign language from no more than two languages		9

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing

examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study[1]

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
3 hours MATH or STAT (Q)		3
MUSI 0500	Student Recital Attendance	0
MUSI 1531	Sight Singing and Aural Skills	1
MUSI 1532	Theory of Music I	2
Music Lessons and Ensemble		4
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MUSI 0500	Student Recital Attendance	0
MUSI 1541	Sight Singing and Aural Skills II	1
MUSI 1542	Theory of Music II	2
Music Lessons and Ensemble		4
General Education and Major courses [2]		6
	Hours	**16**
Sophomore		
Fall		
MUSI 2551	Sight Singing and Aural Skills III	1
MUSI 0500	Student Recital Attendance	0
MUSI 2552	Theory of Music III	2
MUSI 3753	History of Music to 1600 (H)	3
Music Lessons and Ensemble		6
1713 First Semester Foreign Language		3
	Hours	**15**
Spring		
MUSI 2561	Sight Singing and Aural Skills IV	1
MUSI 2562	Theory of Music IV	2
MUSI 3763	History of Music from 1600-1800	3
MUSI 0500	Student Recital Attendance	0
Music Lessons and Ensemble		5
1813 Second Semester Foreign Language		3
	Hours	**14**
Junior		
Fall		
MUSI 3783	Form And Analysis	3
MUSI 3873	History of Music from 1800-Present	3
MUSI 3582	Survey of World Musics	2
MUSI 0500	Student Recital Attendance	0
Music Lessons and Ensemble		5
General Education and College courses [2]		3
	Hours	**16**
Spring		
MUSI 3901	Junior Recital	1
MUSI 0500	Student Recital Attendance	0
MUSI 4972	Post Tonal Analysis	2
Music Lessons and Ensemble		5
General Eduation courses [2]		7
	Hours	**15**
Senior		
Fall		
MUSI 4840	Special Studies in Music Literature	2
MUSI 4600	Chamber Ensembles	1
MUSI 3712	Basic Conducting	2
Music Lessons and Ensemble		5
General Education courses [2]		6
	Hours	**16**
Spring		
MUSI 4901	Senior Recital	1
MUSI 4890	Special Studies in Music Pedagogy	2
MUSI 3722 or MUSI 3772 or MUSI 4912 or MUSI 4480	Advanced Ensemble Conducting or Counterpoint or Orchestration and Arranging or Elective Applied Lessons	2
Music Ensemble		2
General Education courses [2]		9
	Hours	**16**
	Total Hours	**122**

1

Credit hours are 125 for Vocal Performance. Please consult with your major advisor for details.

2

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Philosophy

Philosophy is both an intellectual activity and a subject of study. As an activity, philosophy seeks to analyze, evaluate, and often reformulate the ideas, principles and arguments by which experience is understood and explained and by which action is directed and justified. Philosophy explores every area of experience and behavior: e.g., aesthetic, political, religious, scientific and moral. The writings produced by great philosophers are worthy of study as models of thought and as artifacts of historical influence and cultural significance.

Courses offered in philosophy fall into three general groups: broad introductory courses that cover a variety of topics, historical courses that study important thinkers, and special topic or field courses. Some offerings combine the latter two characteristics. Few undergraduate courses are intended primarily for majors. The BA program in philosophy has been approved for offering at OSU-Tulsa. Students may pursue work in philosophy as part of their general education, as a support to their major area of concentration, as a minor, as a major leading to a BA degree, as a second major, or in connection with a graduate program.

In addition to the standard Bachelor of Arts in Philosophy, which offers three tracks (see below), the Department also offers two specialty options, Pre-Ministry and Pre-Law. The Pre-Ministry option includes required courses in Religious Studies, and students are encouraged to take counseling courses as electives. The Pre-Law option is flexible and allows students to incorporate relevant courses from departments such as Political Science, Economics, Finance and Business Communications

The standard Bachelor of Arts in Philosophy accommodates students of three sorts. The "general" track is designed for students who wish to explore philosophy as a general path to the refinement of their thinking, writing and speaking, and a deepening appreciation of the most fundamental and guiding ideas and values of civilization. It is a very flexible program, requiring two lower-division introductory courses, two upper-division historical survey courses and 19 hours of additional unspecified philosophy courses numbered 3000 or above. The "pre-professional" track is designed for students who wish to provide a philosophical foundation for their professional interests (such as law, medicine, business, public service). Though requirements are technically the same for these students as those on a general track, they are assigned a second advisor who helps to coordinate curricular and other activities for the best career preparation possible. The “graduate preparation" track is designed for students who are interested in pursuing graduate studies in philosophy. It requires an additional six hours of upper-division philosophy and mandates more specific courses than either of the other tracks. Students may shift from track to track at any time without prejudice.

A minor or a second major in philosophy will complement any other area of study. A philosophy minor requires 18 hours of unspecified philosophy courses, 12 of which must be numbered 3000 or above.

Courses

PHIL 1023 Who Do You Think You Are? (H)
Description: Is who you think you are really who you are? Is there more to understanding who we are than we can know with the mind? Are there depths of our personal identity that go beyond our ordinary notions about being "somebody" ? Does discovering who and what I am have any impact on the quality of my life? This course explores these issues from both philosophical and spiritual sources, utilizing practices designed to help bring direct, transformative insights into the question of who and what we really are so that we might enjoy a life of peace, love and joy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1113 Introduction To Philosophy (H)
Description: This course explores several major philosophical questions, like can we know whether God exists; whether we have free will; what makes an action morally right or wrong; what our ethical obligations are to asylum seekers, Impoverished Individuals across the world, fetuses, terminally ill individuals; what a fair and just society looks like, and more. Previously offered as PHIL 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1213 Philosophies of Life (H)
Description: This course introduces students to the history and development of philosophy with a special focus on ethics and contemporary moral arguments. By studying great philosophical works, this class enables students to think a critical manner about their own ideas and beliefs concerning philosophical problems and important issues that affect our lives. The goal of the course is to aid students in examining multiple perspectives on sometimes controversial topics, evaluate and assess articles on these topics, and allow students to form their own arguments on these issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 1313 Logic and Critical Thinking (Q)
Description: Formal and informal reasoning, common fallacies, definitions and language functions, patterns of explanation. Practical criticism and development of everyday arguments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 2003 Local Issues and Ethical Controversies (H)
Description: This course will familiarize students with current and highly debated moral issues that affect their lives and the lives of those in their community. Moral theories will be applied to critical issues that affect Oklahoma and surrounding Southwestern states. Students will learn how to articulate both sides of these debated issues, as well as how to engage in civil discourse with others with whom they may disagree.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2013 Philosophical Classics (H)
Description: Classic, renowned works by a variety of great thinkers from Plato and Descartes to Berkley, Nietzsche, Dewey, Quine, Nussbaum, West, and many others. As a student you will be engaging with some of the most interesting, thought-provoking ideas in the history of Western philosophy, ranging from the "Allegory of the Cave" and the "Ontological Argument" to existential ethics, pragmatic epistemology and feminist political theory. Previously offered as PHIL 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2043 Philosophy of Film (H)
Description: This course introduces students to the various philosophical issues surrounding film. Topics will include: the nature of cinema, authorship and narration, film's relationship with the emotions, genre, and cinematic depictions of love, violence, race and gender. Various film techniques will also be discussed, including cinematography, lighting, editing, scoring and sound design. These issues will be dealt with by making use of philosophical texts. Course previously offered as PHIL 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2053 Philosophy in Literature (H)
Description: Selected literary works examined for philosophical ideas and themes. Attention to the interrelation of form and content. In this class students will be introduced to major philosophical themes in great literature spanning across a variety of genres, from existential novels and epic poems to science fiction, horror, mystery, drama and more. Course previously offered as PHIL 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2313 Asking the Right Questions (Q)
Prerequisites: PHIL 1313 or concurrent enrollment in PHIL 1313 or consent of instructor.
Description: We're bombarded with scientific, moral, and political claims that are said to be backed by surveys or studies. Yet the claims frequently contradict each other. We hear that the economy does better when one political party is in charge, and then the next day we hear that it does better when a different party is in power. This course is meant to help students discover when they can trust a claim and the limitations of claims. Students will learn how to understand the logic behind claims and how to separate legitimate claims from those which are illegitimate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 2413 Global Ethics (GH)
Description: Issues like poverty, climate change, immigration and the development and distribution of medical treatments can best be understood as global issues. In Global Ethics, students will study a variety of global ethical challenges and learn how those from different countries/cultures understand and respond to these challenges. The goal of this course is not to convince students that one particular viewpoint is correct. Rather, students will be encouraged to determine what they believe is the best way to understand and ethically respond to some of the global ethical issues that currently challenge u
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

PHIL 2443 Ethics: Left & Right (H)
Description: In this course students will explore multiple "sides" of social, political, and moral issues which tend to foster stark divisions in our society. The course aims to cultivate, develop, and practice the skill of engaging openly and fairly with viewpoints that we do not immediately agree with. Students will critically examine arguments from different "sides" of moral issues and political debates, attempting to illuminate strengths and weakness of either.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2483 Ethics & Sports (H)
Description: This course examines some of the many ethical questions raised by engagement with sport. Some topics to be explored include: the ethics of football In the face of health concerns; the ethics of "doping" or enhancement; what to do about morally problematic team names and mascots; whether it is moral to root for teams with morally problematic individuals; the most ethical approach to compensating athletes; how to foster greater inclusion in sport; and how to use the platform of sport to foster greater inclusion in society more generally.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2513 Philosophy, Self, & Society (H)
Description: A philosophical investigation of diverse cultural attitudes, values, and experiences. Our central task is to examine different notions of what it is to be human, and we will do so by looking into ethical and religious philosophies that emerge from a range of cultures around the globe. Topics include: the nature of the self, the role of love in human life, mysticism, personhood, ethics and obligation, and aesthetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2573 Drugs, Philosophy & Society (H)
Description: This course will explore the various philosophical issues that arise from humankind's relationship with drug use. Considerable time will be spent analyzing the ethical issues that arise within modern U.S. drug policy. Topics include: arguments for and against drug legalization, the drug war and race, psychedelic drugs and mystical experiences, and the emerging cannabis industry in North America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2593 Mystics & Skeptics (H)
Description: This course will explore the complex relationship between mysticism, skepticism, and philosophy. Our exploration of these themes will take us into some classic epistemological problems regarding the limits of reason, and the implications of these limitations for religious faith. Other topics include: theological predication, the problem of divine hiddenness, and religious diversity. Same course as REL 2593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 2890 Honors Experience in Philosophy
Prerequisites: Honors Program participation and concurrent enrollment in a designated PHIL course.
Description: A supplemental Honors experience in Philosophy to partner concurrently with designated Philosophy course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 2990 Sophomore Seminar in Philosophy
Prerequisites: 3 credit hours of Philosophy or consent of instructor.
Description: A seminar-style course on varying philosophic topics intended for sophomores, taught by faculty members on a rotating basis. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3003 Symbolic Logic (Q)
Description: Propositional logic and predicate logic with identity, as well as the formal analysis of language. This includes: understanding and applying common fallacies and irrational techniques of persuasion, formulating proper definitions, looking at the functions of language, analyzing patterns of explanation, and comparing and contrasting informal and formal reasoning. Practical criticism and the development of everyday arguments are also a key part of this course. Previously offered as PHIL 4303. May not be used for degree credit with PHIL 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Analytical & Quant Thought

PHIL 3113 Ancient Greek Philosophy (H)
Prerequisites: PHIL 1113, PHIL 1313 or PHIL 2013, or any 3000-4000 level PHIL course.
Description: This course explores the philosophical inventions of the Ancient Greeks and highlights the contemporary relevance of their ideas for us today. The course covers the physical philosophy of the Presocratics, the dramatic philosophy of Plato, the organic philosophy of Aristotle, and the happy lives of the Epicureans and Stoics. Focus is given to the following questions: What is the structure of reality? How can we know the world? What is the good-life and how can we achieve it? The answers given by the Ancient Greeks are surprisingly still relevant and interesting to us today.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3213 Philosophy in the Age of Enlightenment (H)
Prerequisites: PHIL 1113 or PHIL 1313 or PHIL 2013, or any 3000-4000 level PHIL course.
Description: Major philosophers and problems in Western thought from the 17th through the 18th century. Emphasis on Descartes, Hume and Kant.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3313 19th to 21st Century Philosophy (H)
Description: In this course we cover a wide range of topics and philosophical traditions that have been very influential in the last two centuries of Western philosophy. During this time such movements as pragmatism, deconstruction, romanticism, idealism, phenomenology, feminism, postmodernism, Marxism, and analytical philosophy became prevalent. We will therefore explore such diverse thinkers as Nietzsche, Hegel, Heidegger, Nussbaum, Quine, Butler, Derrida, James, and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3413 Ethical Theory (H)
Description: Contemporary and classical views on the nature of moral judgments, moral value, relativity and objectivity, freedom and responsibility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3433 Happiness & Well-being (H)
Description: What is happiness? And what is the relationship between a happy life and a good life? The course explores both the science and philosophy of happiness and well-being as well as the relationship between the two.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3513 Social & Political Philosophy (H)
Description: Major social thinkers and contemporary issues. These issues include communitarianism, individualism, power, authority, violence, revolution, liberalism, conservatism, feminism, human rights, freedom, communism, capitalism, and so forth. Many thinkers will be included, such as Aristotle, Locke, Rousseau, Hobbes, Machiavelli, Butler, Rawis, Nozick, Zizek, Arendt, Baudrillard, 8erlin, and more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3523 Medieval Philosophy (H)
Description: The central focus is on the philosophical and theological problems that engaged the minds of medieval thinkers from Christian, Islamic, and Jewish traditions, including Abelard, Avicenna, Averroes, Maimonides, Aquinas, Scotus, and Ockham.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3553 Philosophy of Dreams (H)
Description: Through philosophical writings about dream-related topics, this course examines questions related to metaphysics, epistemology, and ethics. This involves a focused look at the deep questions and strange phenomena that dreaming provokes. By the end of the course, students should have an increased understanding of the history of philosophy and dreaming, popular moral theories, and the perplexities surrounding dreaming. At the same time, students will develop the ability to evaluate and think critically about philosophical writings and theories about dreams.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3613 Philosophy of Religion (H)
Description: This course introduces students to the major topics in philosophy of religion, as found in the Western monotheistic tradition. Topics include: the relationship between faith and reason, the problem of evil, arguments for God's existence, theological predication and religious language, religious experience, soteriology, and miracles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3623 Philosophy of Race (DH)
Description: Philosophy of Race investigates race discourse within the texts of contemporary philosophers. The course begins with an examination of the concept of race from antiquity through postmodernity. Course discussion focuses on the biological veracity of race, the rise of race as a sociopolitical concept, and the role of modern philosophers in shaping the prevailing perception of people of non-European descent in the West and the implicit justification of slavery, which pervades their texts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3633 MLK, Jr., Malcolm X, & Philosophy of Race (DH)
Description: Critical examination of African American philosophers and other Black thinkers of the Dlaspora In an effort to understand the philosophical significance of the Black experience. Since Martin Luther King, Jr. and Malcolm X are widely accepted as the apex of the two major strains of Black-American philosophy this course will closely read their works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3703 Ethics & Animals (H)
Description: This course is intended to introduce students to ethical theories while also applying them to a wide range of moral concerns surrounding animals. The central goal of this course is to help students develop the skills needed to construct philosophical arguments and analyze multiple perspectives related to the ethical treatment of animals. Topics may include: animal welfare, rights, consciousness, food, agricultural industry, captivity, hunting, and companionship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3713 Philosophy of Education
Description: Classical and contemporary philosophers who have systematically developed their ideas about education, including Plato, Aristotle, Rousseau, Locke, and Dewey.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3733 Environmental Ethics (H)
Description: This course explores human ethical obligations as they related to the broader natural environment in the light of two issues: contemporary concerns about human-induced changes to the environment (pollution, resource depletion, climate change, etc.), and the question of how distinct ways of conceiving the human relationship to nature impact human behavior and thereby the trajectory of these environmental changes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3743 Science and Human Values (H)
Description: A general introduction to the history of western science, stressing cultural values affecting scientific innovations, as well as the effects of scientific innovations on cultural values. Important examples from the history of astronomy and physics and from the history of evolutionary biology will be examined. Students will critically examine the relationship(s) between scientific work and broader cultural concerns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3773 Social Media & Philosophy (H)
Description: Students will read and reflect upon some of the most influential theories on social media today. Discussions will include the competing analyses of Bauerlein, Carr, Shirky and many others who debate the influences of modern media on a wide array of topics: social identity, friendship, love, knowledge, communication, individuality, commerce, entertainment, creativity, consumerism, political activism, and democratic ideals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3783 Ethics of Artificial Intelligence (H)
Description: Case-based examination of ethical issues surrounding the development and implementation of artificial intelligence. Topics include ethical learning, responsibility and automated systems, moral machines, explainable artificial intelligence, algorithmic bias, automation and work, human-robot interaction, machine consciousness, the moral status and rights of robots, and super-intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3793 Philosophies of Love & Sex (H)
Description: In this class students are going to engage a variety of theories on sex, love, and gender. Some of these theories emphasize the role of our evolutionary past on how we pursue intimate relationships. On this view, much of our desire for sex and love is influenced by the reproductive choices of our ancestors. Other theories, however, stress the rich diversity of social practices historically and across the world today. Students will therefore be exposed to competing ideas on marriage, sexual preferences, promiscuity, hormonal differences, gender socialization, and so forth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3803 Ethics, Society, and Business (H)
Description: Ethical issues in business, such as employer-employee duties and loyalties, advertising uses, preferential treatment practices. Analytic grounding in basic theories of ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3813 American Philosophy (H)
Description: Dominant trends in American philosophy, with an emphasis on Pragmatism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3823 Engineering Ethics
Description: Philosophical analysis of moral issues in engineering practice, such as whistle blowing, conflicts of interest and product liability. Professional codes of ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3833 Biomedical Ethics (H)
Description: Moral problems surrounding medical practice, biomedical research, and health policy. Students will develop and use moral reasoning skills to navigate complex issues surrounding the provision of healthcare and medical practice. Topics may include physician assisted suicide, genetic engineering, human and animal experimentation, euthanasia, cloning, reproductive rights, etc. A special emphasis will be placed on the impact of health policy and medical decision-making on marginalized persons, communities, and populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3843 Philosophy of Law (H)
Prerequisites: Upper-division standing.
Description: Philosophical issues related to U.S. law and relationship between law and morality, liability, culpability, and enforcement. Questions will be debated, like: What is "the law"? Do we have an obligation to obey the law? What about unjust laws? How should we interpret statutes and constitutions? What is the relationship between law and morality? Is it moral to lock someone in a room if they break the law? Should people be hospitalized instead? Should legislatures pass laws that prohibit us from engaging in behavior that only harms ourselves? What about laws that require us to help others?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3853 Pragmatism (H)
Description: A survey of Pragmatism and its history. While the course will primarily focus on two major figures of American Pragmatism, Charles Peirce and William James, we will also explore how pragmatism developed in the 21st century and track its influence in both philosophy and science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3873 Power, Oppression, & Privilege (DH)
Description: This course introduces students to various concepts, insights, and methodological tools within feminist philosophy. Questions to be addressed include: How should we understand feminism? What is intersectionality? How should we understand concepts such as power, privilege, and oppression? How should we think about sex and gender? What is sexism and misogyny and how do they operate in our society? What insights can feminist thinking bring to bear on questions of health care, sport, dating, and sexuality? What does an ethical response to injustice require?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3883 Gender, Race, and Class in Healthcare (DH)
Description: This course philosophically examines the relationships of individuals and social groups to healthcare research and clinical practice, including the influences of stereotyping, microaggressions, and implicit bias on the healthcare experiences of patients who are members of marginalized groups. This course is suitable for those interested in philosophical issues around medical practice and those who hope to practice medicine with a greater awareness of issues of health injustices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

PHIL 3890 Advanced Honors Experience in PHIL
Prerequisites: Honors Program participation and concurrent enrollment in a designated PHIL course.
Description: A supplemental Honors experience in philosophy to partner concurrently with designated upper-division PHIL course(s). This course adds a different Intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 3913 Existentialism (H)
Prerequisites: Three credit hours of philosophy.
Description: This course explores a range of philosophers and literacy sources, tracing existentialism from antiquity to present day. Students will be challenged to not simply understand these texts, but to engage them in such a way as to practice these texts, but to engage them in such a way as to practice living in and through the ideas of these great thinkers. This course is just as much about discovering the breadth of the existential tradition as it is about realizing the profound freedom, limitlessness, and potential of one's own existence despite moral absurdity, subjective epistemology, and the ever-present specter of death.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 3920 Contemporary Philosophical Problems
Description: Selected contemporary problems and discussions. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3933 Creation and Evolution
Description: Critical investigates the most prevalent debate between religion and science; namely, Darwinian Evolution vs. (so-called) Scientific Creationism (including Intelligent Design advocates). What is the available scientific evidence? What are the prevailing value differences? What are the legal precedents and prospects? This is the most complete and comprehensive investigation of these issues available on campus.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 3943 Asian Philosophy (GH)
Description: This course surveys four Eastern philosophies from South and East Asia: Hinduism, Buddhism, Confucianism and Daoism. Using primary sources, we will explore the main themes and practices of these schools of thought, while also demonstrating that each tradition offers unique teachings on the nature of reality, the Divine, and self-identity, while also offering a set of practices designed to help one realize fundamental truths and live better.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

PHIL 4000 Senior Thesis in Philosophy
Prerequisites: PHIL 4990 and consent of instructor.
Description: Guided individual work on a thesis under the direction of a faculty member, with a second faculty reader and oral presentation. Intended for senior standing undergraduate Philosophy majors. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4003 Mathematical Logic and Computability
Prerequisites: PHIL 3003 or MATH 3613 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Löwenheim-Skolem theorem, undecidability of first order logic, Gödel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Gödel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as MATH 4003. May not be used for degree credit with PHIL 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4013 Perspectives on Death and Dying (H)
Description: Issues that arise as individuals confront the fact of mortality. Dying patients, the ethical issues of euthanasia and suicide, the process of grief, death in literature and the arts, and philosophical and religious views on immortality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4113 Philosophy & the Arts (H)
Description: Nature of aesthetic objects and experiences; form, meaning and value in the arts; the function of art in society; criteria of criticism of the arts. As such, we will cover a wide diversity of writers including Aristotle, Plato, Kant, Nietzsche, Hegel, do Beauvoir, Adorno, Danto, and many more.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4313 Philosophy of Mind (H)
Description: What is the 'Mind'? How can a human brain create thoughts, sensations, emotions, and abstract ideas? This class examines the nature of the brain, mind, soul, and self with the tools of philosophy, psychology, psychiatry, neuroscience, and evolutionary biology. Is mental content completely 'in the head' and private? or is it irreducibly tied to external input and publicly accessible? Are inner feelings and consciousness incompatible with physical explanations?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4543 Philosophy of Language
Prerequisites: PHIL 1313 or PHIL 3003.
Description: A survey of the development of the philosophy of language, including works of philosophers such as Frege, Wittgenstein, Russell, Strawson, Searle, Donnellan, Grice, and Kripke. May not be used for degree credit with PHIL 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4553 Contemporary Ethical Theory
Prerequisites: PHIL 3413 or consent of instructor.
Description: Debate in ethical theory since Moore. The naturalistic fallacy, intuitionism, and value realism. May not be used for degree credit with PHIL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4713 Philosophy of Science (H)
Description: Is there a single 'Scientific Method', or are there a number of methods used in different sciences? Does using this method (or these methods) lead to truth concerning the physical world, or models that allow us to successfully navigate within it? What is the relationship(s) between science and other human activities (including ethics and religion)? This course will critically investigate these issues and others using examples from many disciplines in the history of science as well as current developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4723 Philosophy of Psychology (H)
Description: A survey of problems in philosophy of psychology, including the nature of psychology and its relation to natural sciences, the cognitive architecture of our minds, which cognitive capacities are innate and which are developed, the relationship between the brain, body, and external world, how we understand other minds, how language affects thought.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4733 Philosophy of Biology (H)
Description: There have been many models of 'Darwinian Evolution' since The Origin of Species in 1859. How did each develop and what are the differences among them? How solid is the melding of evolution, genetics, and molecular biology established in the 1970s and 1980s? Do new developments indicate that this synthesis needs to be extended, or replaced with something new?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy
General Education and other Course Attributes: Human Heritage & Cultures

PHIL 4890 Internship in Philosophy
Prerequisites: Consent of instructor.
Description: Directed internship experience in a philosophy-related professional work setting. Students must have an approved internship that will provide philosophy experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4943 Indian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in two main traditions of Indian Philosophy: Hinduism and Buddhism. How these schools present the fundamental nature and knowledge of reality, human existence, the divine, and enlightenment. May not be used for degree credit with PHIL 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4953 East Asian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in the Chinese and Japanese traditions: Confucianism, Daoism and Zen. How these schools present the fundamental nature and knowledge of reality, human existence, community and enlightenment. May not be used for degree credit with PHIL 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4983 Knowledge and Reality
Prerequisites: 12 credit hours of philosophy.
Description: This course surveys topics in epistemology, a branch of philosophy that asks the following types of questions. What can we know? How do we come to know it? What value does knowing have for our lives? We will also survey questions in metaphysics, a branch of philosophy that explores the nature of reality. For example, are properties like redness just as real as things like tables and chairs? What is a person? What does contemporary science say about what the world is made up of? May not be used for degree credit with PHIL 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 4990 Special Studies in Philosophy
Description: Selected philosophical topics or works. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in philosophy.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Philosophy
General Education and other Course Attributes: Honors Credit

PHIL 5000 Master's Thesis in Philosophy
Description: Supervised individual work on a thesis for a master's degree. Offered for variable credit, 1-6credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5003 Symbolic Logic
Description: Propositional logic and predicate logic with identity. Formal analysis of language. May not be used for degree credit with PHIL 3003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5013 Mathematical Logic and Computability
Prerequisites: PHIL 3003 or MATH 3613 or consent of instructor.
Description: The basic metatheorems of first order logic: soundness, completeness, compactness, Löwenheim-Skolem theorem, undecidability of first order logic, Gödel's incompleteness theorem. Enumerability, diagonalization, formal systems, standard and nonstandard models, Gödel numberings, Turing machines, recursive functions, and evidence for Church's thesis. Same course as MATH 4003. May not be used for degree credit with PHIL 4003 or MATH 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5100 Report Research
Description: Supervised individual work on a report for a master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5210 Seminar on a Major Philosopher
Prerequisites: Three courses in philosophy.
Description: The writings of a major philosopher and related material. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5303 Topics in Philosophy of Religion
Description: An examination of central topics in the philosophy of religion, such as the existence of God, the problem of evil, divine attributes, miracles, revelation, faith and reason, religious pluralism and exclusivism, and morality.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5310 Seminar on a Field of Philosophy
Description: Three courses in philosophy. Selected topics in one field of philosophy. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5313 Topics in Social Political Thought
Description: Consideration of a single topic (e.g. justice), topics (e.g. distributive justice and citizenship) of a single philosophical school, or movement (e.g. Marxism) or several movements and schools (e.g. Marxism and liberalism).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5323 Seminar In Ancient Philosophy
Prerequisites: PHIL 3113.
Description: Philosophical problems that characterize ancient Philosophy: form and matter, one and many, universal and particular, actuality and potentiality, stability and change, substance and accidents, first principles and elements. Close reading of Plato and Aristotle.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5333 Seminar In Modern Philosophy
Prerequisites: PHIL 3213 or PHIL 3313.
Description: Examination of the metaphysical and epistemological systems of philosophers over 17th-19th century Europe such as Descartes, Spinoza, Locke, Leibniz, Berkeley, Hume, Kant and Hegel.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5343 Seminar in East and West Comparative Philosophy
Prerequisites: PHIL 3943.
Description: Critical comparison between West European and East Asian traditions of philosophy, such as being and non-being, the nature of truth, self, human being, ethics, human rights, community, and religion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5353 Seminar in Contemporary Continental Philosophy
Prerequisites: PHIL 3213 or PHIL 3313.
Description: Themes such as presence and absence, intentionality and constitution, meaning and "being," identity and difference, history and consciousness, practice and power, construction and deconstruction. Philosophers such as Merleau, Husserl, Heidegger, Sartre, Derrida, and Faucault.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5363 Topics In Metaphysics
Prerequisites: PHIL 3113 or PHIL 3213 or PHIL 4983.
Description: Selected topics that may be approached from an historical or contemporary standpoint, such as idealism, realism, causation, time, universals, personal identity, possibility and free will.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5373 Contemporary Epistemology
Prerequisites: PHIL 3213 or PHIL 3113 or PHIL 4983.
Description: Recent approaches to the theory of knowledge. Origin and justification of belief and certainty, roles of the senses and the mind, and the nature of truth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5383 Seminar In American Philosophy
Description: Selected philosophical schools or traditions influential in American thought, such as transcendentalism, pragmatism, or naturalism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5393 German Idealism
Prerequisites: PHIL 3113 or 3213.
Description: Selected major works of post-Kantian German Philosophy, such as the nature of a philosophical system, identity, and self-consciousness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5423 Topics In Ethical Theory
Prerequisites: PHIL 3413.
Description: Central problems in ethical theory, such as ethical realism/anti-realism, motivational internalism/externalism, and problems within specific normative systems.Written Description.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5433 Topics In Philosophy Of Law
Prerequisites: PHIL 3843.
Description: In-depth examination of selected topics in philosophy of law, such as punishment, jurisprudence, and principles of legislation. Seminar format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5443 Topics In Biomedical Ethics
Prerequisites: PHIL 3833.
Description: In-depth examination of selected topics in biomedical ethics, such as implications of the Human Genome Project, ethics of human reproduction, and research ethics. Emphasis on contemporary philosophical thought. Seminar format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5453 Topics in Professional Ethics
Description: In-depth study of ethical issues faced by business and engineering professionals (e.g., social effects of advertising, environmental impact of professional practice, product safety and consumer protection, whistleblowing and confidentiality).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5510 Research Topics in Philosophy
Prerequisites: Consent of graduate adviser or department head.
Description: Individual research on topics related to the student's interests and/or thesis topic(s). Offered for variable credit, X=1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5543 Philosophy Of Language
Prerequisites: PHIL 5003 or consent of instructor.
Description: A survey of the development of the philosophy of language, including works of philosophers such as Frege, Wittgenstein, Russell, Strawson, Searle, Donnellan, Grice, and Kripke. May not be used for degree credit with PHIL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5553 Contemporary Ethical Theory
Prerequisites: PHIL 3413 or consent of instructor.
Description: Debate in ethical theory since Moore. The naturalistic fallacy, intuitionism, and value realism. May not be used for degree credit with PHIL 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5610 Philosophical Issues in Education
Description: Contemporary issues in educational theory and practice. The relation of education to political thought, religion, public law and culture. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5910 Research Problems in Philosophy
Prerequisites: Consent of instructor and department head.
Description: Individual or group research on specific philosophical problems. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Philosophy

PHIL 5943 Indian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in two main traditions of Indian Philosophy: Hinduism and Buddhism. How these schools present the fundamental nature and knowledge of reality, human existence, the divine, and enlightenment. May not be used for degree credit with PHIL 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5953 East Asian Philosophy
Prerequisites: PHIL 3943 or consent of instructor.
Description: Study of texts and themes in the Chinese and Japanese traditions: Confucianism, Daoism and Zen. How these schools present the fundamental nature and knowledge of reality, human existence, community and enlightenment. May not be used for degree credit with PHIL 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

PHIL 5983 Knowledge and Reality
Prerequisites: 12 credit hours of philosophy.
Description: This course surveys topics in epistemology, a branch of philosophy that asks the following types of questions. What can we know? How do we come to know it? What value does knowing have for our lives? We will also survey questions in metaphysics, a branch of philosophy that explores the nature of reality. For example, are properties like redness just as real as things like tables and chairs? What is a person? What does contemporary science say about what the world is made up of? May not be used for degree credit with PHIL 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Philosophy

REL 1103 Introduction to World Religions (GH)
Description: Major world religions such as Hinduism, Buddhism, Judaism, Christianity and Islam with a view to understanding the general nature of religion and its various dimensions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 2013 The Old Testament and its Study (H)
Description: A study of the Old Testament with emphasis upon content, historical background, the history of its study and the critical analysis and interpretation of selected passages. Previously offered as REL 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2023 The New Testament and Its Study (H)
Description: A study of the writings of the New Testament in their historical contexts and the methods used in their study. Emphasis interpreting selected New Testament passages. Previously offered as REL 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2113 Religion in Film (H)
Description: This course will examine how religious beliefs, practices, experiences and communities have been portrayed in film. Students will explore how film has used allegory, symbolism and other tropes to represent different religious traditions and their systems of beliefs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2213 Ghosts, Gods, and Monsters
Description: Ghosts, Gods and Monsters all have something in common. They are not just an element of a given culture, but is a cipher for, or boundary markers for what is sacred and profane, monstrous and heroic, or life and death. And while all three can be found across history (depending on the lens used), how they are understood and what purposes they serve, changes depending on the time and place.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2313 Religious Violence, Wild Weather, and Ancient Prophecy
Description: This course will introduce students to religions that were in existence during ancient times. The course will focus on religions that have had an impact on cultures that may now be extinct as well as religions that developed into modern systems of belief. Students will read primary sources indigenous to these religions. We will explore aspects of religions that include violence, weather phenomena and mythology and prophetic ideas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2413 Religion and the Body: Sports, Medicine and Sexuality (H)
Description: This course will explore the role of religious beliefs and practices as they relate to sports, medicine and sexuality. Topics will include the cultural influence of religion on sports, religiously-informed debates within the field of medicine, and conceptions of sexuality and gender from the perspective of various Eastern and Western religious traditions. More generally, this course will explore how different world religions view the human body.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2593 Mystics & Skeptics (H)
Description: This course will explore the complex relationship between mysticism, skepticism, and philosophy. Our exploration of these themes will take us into some classic epistemological problems regarding the limits of reason, and the implications of these limitations for religious faith. Other topics include: theological predication, the problem of divine hiddenness, and religious diversity. Same course as PHIL 2593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2743 Religious Perspectives on Food and Agriculture (H)
Description: The goal of this course is to understand the interconnected history of agriculture, food, and religion. We will explore related ancient religions and mythologies, the pastoral roots of many world religions, dietary rules in different religions, as well as contemporary ethical issues as seen through the lens of religion. Previously offered as REL 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3113 Asian Religions (GH)
Description: This course will examine the diverse histories, beliefs, and practices of major Asian religious traditions: Hinduism, Buddhism, Confucianism, Daoism, Shintoism, Shamanism, and modern-day religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3213 Judaism: History, Culture and Beliefs (H)
Description: This course will explore the development of Judaism beginning with its roots in Ancient Israelite religion, the early biblical tradition, and moving through Assyrian and Babylonian conquests, Diaspora, Hellenistic occupation, Roman occupation, Byzantium, the Middle Ages, the Holocaust, the establishment of the state of Israel, up to present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3223 Jesus: Teachings, History and Interpretation (H)
Prerequisites: REL 2023.
Description: This course will examine the teaching of Jesus, the historical context of the first century, and how Jesus' life and teachings have been interpreted through history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3243 Origins of the Christian Church (H)
Prerequisites: REL 2023.
Description: This course will examine the letters of Paul in their historical context, focusing especially on the early Christian communities that were their audience, and how these letters helped shape beliefs and practices before Constantine made Christianity the official religion of Rome.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3313 Islam: History, Culture and Beliefs (GH)
Description: This course will examine the history, culture and beliefs of Islam, from its seventh century origins to modern times.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3413 The Bible and Contemporary Social Issues (H)
Description: This course addresses contemporary social issues through critical engagement with Christian textual and practical traditions. We will critically analyze how various biblical passages influence public discourse, political activity, and personal moral choices on current issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3423 Classic Christian Writings (H)
Description: A study of the primary source material from representative Christian authors scattered throughout two thousand years of church history, focusing on understanding the backgrounds from which the writings emerged, and grasping the writers' key ideas. Course previously offered as REL 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3513 Religious Experience (H)
Description: This course will explore the nature of religious experience and what role it plays within different traditions. Modes of religious experience to be explored range from meditation and prayer to conversion experiences and mystical states of consciousness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion.and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as GWST 3523 and GEOG 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3543 Religion, Race and Social Justice (DH)
Description: This course examines the role of religion in the history and understanding of race, as well as how religion has been leveraged in relation to challenges of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3573 The Religions of Native Americans (DH)
Prerequisites: REL 1103.
Description: Selected tribal worldviews, belief systems and religious ceremonies as depicted in oral traditions, songs, and literature. Emphasis on Northern and Southern Plains Indians.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3613 Global Christianity (GH)
Description: This course examines the varied expressions of the Christian tradition across the world, including Africa, Asia, Europe, the Pacific, the Caribbean, and the Americas. While there are points of continuity within and across Christian communities, we focus our attention on its contemporary international diversity, as communities across the globe interpret and practice the Christian faith as shaped by their varied geographical, historical, social, political, economic and cultural contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3623 Magic, Witchcraft, and the Occult (H)
Description: This course will examine the historical and cultural contexts that have shaped various portrayals of magic and witchcraft. We will consider how the supernatural worldviews underlying these portrayals related to both more traditional religious worldviews as well as the ways in which representations of the supernatural serve as vehicles for a culture's hopes and fears.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3643 Cults, Conspiracies, and Contemporary Religious Movements (H)
Description: This course will examine recent religiously-themed cults and conspiracy theories as well as various new Christian and Non-Christian religious movements in North America, focusing on those that tend to be seen as outside mainline traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3713 Religion, Culture and Society
Prerequisites: REL 1103, ANTH 2353, SOC 1113.
Description: An introduction to the scientific study of religion. Religious activity in both tribal and technological societies studied in the light of contemporary interpretations of culture and of social behavior. Same course as SOC 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4033 Religion in Early America (H)
Description: A study of religious life and its history in early America, beginning with its earliest European settlers, Native Americans, and continuing through the 1800s. Same course as HIST 4633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4050 Studies in Religion
Description: Independent studies, seminars and courses on selected topics in religion. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4113 The World of Islam: Cultural Perspectives (GH)
Description: The cultural heritage of the world of Islam explored through its expression in the art, architecture, and literature of the Muslim peoples.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4213 Understanding Global Islam (GH)
Description: A study of the history of Islam starting from Prophet Muhammad to the spread of the Islamic Empire. How Islam moved from Arabia to the world. Introduction to the Islamic divisions, where they are now, why they are similar and different in terms of laws, schools, countries, literature, sciences, Arabic script, the Shia, the Sunna, and different Islamic countries' practices. Also, debatable issues on Muslim women in American and other countries and why those are different from others.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4223 Religion and Conflict in the Middle East (GH)
Description: This course will explore the religions of the Middle East, focusing on how they have shaped the region's recent history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4330 Seminar in Biblical Studies
Prerequisites: Two courses in Biblical studies.
Description: Selected topics in the academic study of the Bible. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4423 Death and the Afterlife (H)
Description: This course will explore and critically analyze the varying perspectives on death and the afterlife as seen across world religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4513 Literary Art in the Bible
Description: This course will explore literary devices (foreshadowing, allegory, symbolism, etc) and how they are implemented in biblical texts, The Bible will be the primary focus, but comparative texts will be used to build an understanding and recognition of literary devices. We will examine the texts and their history on their own terms, rather than promote a particular religious or non-religious viewpoint. Same course as ENGL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4613 Women in the Bible (H)
Description: This course will examine the stories about and portrayals of women in the Bible. We will explore what the biblical authors have to say about women within their cultural contexts and how these portrayals have shaped how women are seen in Western society. By analyzing the portrayals of women in antiquity, the course will also provide conceptual tools to help students examine how gender has been understood in Western society. Same course as GWST 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4753 Muslim-Christian Relations (H)
Description: Exploration of commonalities and differences between Christianity and Islam, and the history of cooperation and conflict between Muslims and Christians, from Arabia in Muhammad's time to worldwide in the twenty-first century. Themes include mutual understanding and misunderstanding, conversion, rulers and subjects, discrimination, and dialogue. Same course as HIST 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4923 Visions of Apocalypse: Portrayals of the End-Time in World Religions (H)
Description: This course will examine the various portrayals of the Apocalypse from many religious and folklore traditions around the world. This course will also explore various contemporary portrayals of the Apocalypse ranging from malevolent emergent artificial intelligence to the zombie virus.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

Undergraduate Programs

- Philosophy, BA (p. 1740)
- Philosophy: Ethics and Business Essentials, BA (p. 1743)
- Philosophy: Ethics and Public Policy, BA (p. 1746)
- Philosophy: Pre-Law, BA (p. 1749)
- Philosophy: Pre-Ministry, BA (p. 1751)

Graduate Programs

The Department of Philosophy offers a Master of Arts degree in philosophy. Consult the "Master's Degree Programs" section of the "Graduate College" in the Catalog for general regulations and requirements relating to admission.

The Master of Arts degree in philosophy offers a broad-based curriculum designed to serve the interests of two kinds of students:

1. Professional Emphasis: for students who wish to pursue their study of philosophy as a supplement to preparation in a wide variety of professions including business, law, government, the health professions, the ministry, or counseling. Students interested in the professional emphasis have the opportunity to choose from a wide variety of courses that support their career plans (biomedical ethics, business ethics, philosophy of law, philosophy of religion, and cognate courses in other disciplines).
2. PhD Emphasis: for students who wish to pursue their study of philosophy as a preparation for PhD studies in philosophy at another institution. Students interested in the PhD emphasis have the opportunity to enhance their understanding of the history of philosophy, logic, and metaphysics and epistemology.

Students in both of these emphases are able to compete for teaching assistantships and may teach either Critical Thinking or Introductory Moral/Social Problems courses.

Prerequisites for admission to the program are 24 semester credit hours (at least 18 at the upper-division level) in philosophy including courses in the history of ancient philosophy (PHIL 3113 Ancient Greek Philosophy (H) or equivalent), the history of 17th and 18th century philosophy (PHIL 3213 Philosophy in the Age of Enlightenment (H) or equivalents) and a course in logic (PHIL 3003 Symbolic Logic (Q) or equivalent). Students without these prerequisites, but otherwise admissible, may be granted "qualified" or "provisional" status until the prerequisites are satisfied.

The Master of Arts degree in Philosophy may be earned through any of three options:

1. Thesis option (twenty-four credit hours of course work plus six credit hours of research in which a thesis is written);
2. Report option (thirty credit hours of course work plus two credit hours of research in which a report is written);
3. Creative Component option (thirty-two credit hours of coursework including a creative component).

Students will prepare a plan of study under the guidance of their graduate advisor. Each student is supervised by a three-person advisory committee appointed for, and in consultation with, the student.

A student may also, in accordance with the policies of the Graduate College, select a graduate minor in connection with the master's degree in philosophy, thus permitting a concentration of work in broad areas such as social thought or cognitive science.

Students pursuing a master's or doctor's degree in another field may elect philosophy as a graduate minor. Selected courses and seminars in philosophy can broaden and complement work in such areas as economics, education, engineering, English, history, psychology and sociology.

Minors

- Ethics (ETHC), Minor (p. 1737)
- Philosophy (PHIL), Minor (p. 1739)
- The Art and Science of Critical Thinking (ASCT), Minor (p. 1754)

Certificates

- Ethics, UCRT (p. 1738)
- The Art and Science of Critical Thinking, UCRT (p. 1755)

Faculty

Shannon Spaulding, PhD—Professor and Department Head
Professors: Eric H. Reitan, PhD; Shannon Spaulding, PhD
Associate Professors: Haridas Heitz, PhD; Apple Z. Igrek, PhD; Doren A. Recker, PhD
Assistant Professors: Joanna Lawson, PhD; Chris Blake-Turner, PhD; Jin Kim, PhD; Richard Neels, PhD; Heather Stewart, PhD
Teaching Associate Professors: Christopher Drohan, PhD; Justin Rice, MA
Teaching Assistant Professors: Glen Fairen, PhD; Lawrence Ware, MA
Teaching Instructors: Jessica Doyle, MA

Ethics (ETHC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Contact: Sarah Mutschelknaus,101B SSH, 405-744-8197

Minimum GPA: 2.50
Total Hours: 15

Code	Title	Hours
PHIL 1113	Introduction To Philosophy (H)	3
or PHIL 1213	Philosophies of Life (H)	
PHIL 3413	Ethical Theory (H) (or a 3-credit hour upper-division PHIL course approved by advisor)	3
Select 9 credit hours from the following:		9
PHIL 1213	Philosophies of Life (H)	
or PHIL 1113	Introduction To Philosophy (H)	
PHIL 2003	Local Issues and Ethical Controversies (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 2573	Drugs, Philosophy & Society (H)	
PHIL 3433	Happiness & Well-being (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3553	Philosophy of Dreams (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3703	Ethics & Animals (H)	
PHIL 3733	Environmental Ethics (H)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3783	Ethics of Artificial Intelligence (H)	
PHIL 3803	Business Ethics (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 3913	Existentialism (H)	
PHIL 3943	Asian Philosophy (HI)	
PHIL 4013	Perspectives on Death and Dying (H)	
PHIL 4553	Contemporary Ethical Theory	
PHIL 4723	Philosophy of Psychology (H)	
PHIL 4890	Internship in Philosophy (with Consent of Advisor)	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Ethics, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Required Courses		
PHIL 1213	Philosophies of Life (H)	3
or PHIL 1113	Introduction To Philosophy (H)	
PHIL 3413	Ethical Theory (H)	3
Select 10 hours from the following:		10
PHIL 1113	Introduction To Philosophy (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 2003	Local Issues and Ethical Controversies (H)	
PHIL 2513	Philosophy, Self, & Society (H)	
PHIL 2573	Drugs, Philosophy & Society (H)	
PHIL 3433	Happiness & Well-being (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3553	Philosophy of Dreams (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3633	MLK, Jr., Malcolm X, & Philosophy of Race (DH)	
PHIL 3703	Ethics & Animals (H)	
PHIL 3733	Environmental Ethics (H)	
PHIL 3773	Social Media & Philosophy (H)	
PHIL 3783	Ethics of Artificial Intelligence (H)	
PHIL 3803	Ethics, Society, and Business (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 3913	Existentialism (H)	
PHIL 3943	Asian Philosophy (GH)	
PHIL 4013	Perspectives on Death and Dying (H)	
PHIL 4553	Contemporary Ethical Theory	
PHIL 4723	Philosophy of Psychology (H)	
PHIL 4890	Internship in Philosophy	
Total Hours		**16**

Philosophy (PHIL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Contact: Sarah Mutschelknaus,101B MUR, 405-744-8197

Minimum Grade Point Average in Minor Coursework: 2.50
Total Hours: 18 hours of PHIL

Other Requirements

- 12 hours must be upper-division.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Philosophy, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one of the following:		3
PHIL 1113	Introduction To Philosophy (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 2013	Philosophical Classics (H)	
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Social & Behavioral Sciences (S)		
Exploring Society & Human Behavior (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. Minimum GPA in all Philosophy courses 2.50		
Core		
Select 6 hours of the following:		6
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
Select one of the following:		37
General:		
PHIL 3003	Symbolic Logic (Q)	
Select a minimum of 19 additional hours in PHIL courses: up to 6 hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses [1]		
Select 15 hours upper-division courses [1]		
Graduate Preparation:		
PHIL 3003	Symbolic Logic (Q)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3413	Ethical Theory (H)	
PHIL 3991	Contemporary Philosophy Research	
PHIL 4983	Knowledge and Reality	
Select 12 additional hours in PHIL: courses up to 6 hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses		
Select 12 hours upper-division courses		
Career/Pre-professional:		
Select a minimum of 19 additional hours in PHIL courses up to 6 hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses		
Select 18 additional upper-division hours [1]		
Hours Subtotal		**43**
Electives		
Select 15 hours [1]		15
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**15**
Total Hours		**120**

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With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be substituted for these areas.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
PHIL 1113 or PHIL 2013 or PHIL 1213	Introduction To Philosophy (H) or Philosophical Classics (H) or Philosophies of Life (H)	3
1713 First Semester Foreign Language		3
General Education courses		5
	Hours	**14**

Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
1813 Second Semester Foreign Language		3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 3113	Ancient Greek Philosophy (H)	3
2000-level Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
PHIL 3213	Philosophy in the Age of Enlightenment (H)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
PHIL 3313	19th to 21st Century Philosophy (H)	3
PHIL 3413	Ethical Theory (H)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
PHIL 3991	Contemporary Philosophy Research	1
Major, College, and Elective courses		14
	Hours	**15**
Senior		
Fall		
PHIL 3003	Symbolic Logic (Q)	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Philosophy: Ethics and Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher, not MATH 1493)	3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
PHIL 2013	Philosophical Classics (H)	3
or PHIL 1113	Introduction To Philosophy (H)	
or PHIL 1213	Philosophies of Life (H)	
3 hours designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See Note 2.a.)		9
Natural & Mathematics Sciences		
(See Note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. Minimum GPA in all Philosophy courses 2.50.		
Core		
6 hours from:		6
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3003	Symbolic Logic (Q)	3
PHIL 3413	Ethical Theory (H)	3
PHIL 3803	Ethics, Society, and Business (H)	3
Select a minimum of 13 additional hours in PHIL courses up to 6 hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses.		13
Business Essentials		
ACCT 2003	Survey of Accounting	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
BADM 3113	Practical Business and Interpersonal Skills	
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
9 hours upper-division related courses from the following:		9
AMST 3823	U.S. as Business Culture (DH)	
BCOM 3113	Written Communication	
ECON 3213	Game Theory and Experimental Economics	
ECON 3823	American Economy: The Past and Present (S)	
LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3133	Developing Leadership Skills	
MGMT 4073	Management and Ethical Leadership	
MGMT 4513	Strategic Management	
MGMT 4533	Leadership Dynamics	
MKTG 3323	Consumer and Market Behavior	
MKTG 4443	Social Issues in the Marketing Environment (D)	
SPCH 3723	Business and Professional Communication	
Hours Subtotal		**46**

Electives	
12 hours of electives	12
Hours Subtotal	**12**
Total Hours	**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3

PHIL 1113 or PHIL 2013 or PHIL 1213	Introduction To Philosophy (H) or Philosophical Classics (H) or Philosophies of Life (H)	3
1713 First Semester Foreign Language		3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
1813 Second Semester Foreign Language		3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 3113	Ancient Greek Philosophy (H)	3
2000-level Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
PHIL 3213	Philosophy in the Age of Enlightenment (H)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
PHIL 3313	19th to 21st Century Philosophy (H)	3
PHIL 3413	Ethical Theory (H)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
PHIL 3991	Contemporary Philosophy Research	1
Major, College, and Elective courses		14
	Hours	**15**
Senior		
Fall		
PHIL 3003	Symbolic Logic (Q)	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Philosophy: Ethics and Public Policy, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher excluding MATH 1493) [1]	3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
PHIL 2013	Philosophical Classics (H)	3
or PHIL 1113	Introduction To Philosophy (H)	
or PHIL 1213	Philosophies of Life (H)	
and 3 hours designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See Note 2.a.)		9
Natural & Mathematics Sciences		
(See Note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. Minimum GPA in all Philosophy courses 2.50.		
Core:		
6 hours from:		6
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3413	Ethical Theory (H)	3
PHIL 3843	Philosophy of Law (H)	3
Select a minimum of 16 hours of additional hours of PHIL. Up to 6 hours may be 2000-level. 10 hours must be upper-division.		16
Ethics and Public Policy:		
Select 15 hours upper-division courses from:		15
POLS, GEOG, or GWST		
SPCH 3733	Elements of Persuasion (S)	
SOC 3423	Urban Sociology	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3953	Applied Sociology	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4533	World Population Problems	
or others with consent of advisor.		
Hours Subtotal		**43**
Electives		
Select 15 hours.		15
Hours Subtotal		**15**
Total Hours		**120**

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College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
PHIL 1113 or PHIL 2013 or PHIL 1213	Introduction To Philosophy (H) or Philosophical Classics (H) or Philosophies of Life (H)	3
1713 First Semester Foreign Language		3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
1813 Second Semester Foreign Language		3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 3113	Ancient Greek Philosophy (H)	3
2000-level Foreign Language		3

General Education courses		6
	Hours	**15**
Spring		
PHIL 3213	Philosophy in the Age of Enlightenment (H)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
PHIL 3313	19th to 21st Century Philosophy (H)	3
PHIL 3413	Ethical Theory (H)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
PHIL 3843	Philosophy of Law (H)	3
PHIL 3991	Contemporary Philosophy Research	1
Major, College, and Elective courses		11
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Philosophy: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one of the following:		3
PHIL 1113	Introduction To Philosophy (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 2013	Philosophical Classics (H)	
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. Minimum GPA in all Philosophy courses 2.50		
Core		
Select 6 hours of the following:		6
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3003	Symbolic Logic (Q)	3
PHIL 3843	Philosophy of Law (H)	3
Select a minimum of 16 additional hours in PHIL: up to six hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses. [1]		16
Select 15 hours upper-division related courses from the following: [1]		15
AGEC 3713	Agricultural Law	
AMIS 4013	American Indian Sovereignty (D)	
BCOM 3113	Written Communication	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
FIN 3113	Principles of Finance	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 4123	Cybersecurity Systems Management	
POLS 3033	International Law	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**43**
Electives		

Select 15 hours [1]	15
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours	
Hours Subtotal	**15**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
PHIL 1113 or PHIL 2013 or PHIL 1213	Introduction To Philosophy (H) or Philosophical Classics (H) or Philosophies of Life (H)	3
1713 First Semester Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
1813 Second Semester Foreign Language		3
General Education courses		10
	Hours	**16**
Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 3113	Ancient Greek Philosophy (H)	3
2000-level Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
PHIL 3213	Philosophy in the Age of Enlightenment (H)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
PHIL 3313	19th to 21st Century Philosophy (H)	3
PHIL 3413	Ethical Theory (H)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
PHIL 3003	Symbolic Logic (Q)	3
Major, College, and Elective courses		14
	Hours	**17**
Senior		
Fall		
Major, College, and Elective courses		12
	Hours	**12**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Philosophy: Pre-Ministry, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Select one of the following:		3
PHIL 1113	Introduction To Philosophy (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 2013	Philosophical Classics (H)	
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other first-year seminar course)	1
Arts & Humanities		
REL 1103	Introduction to World Religions (GH)	3
REL 2013	The Old Testament and its Study (H)	3
or REL 2023	The New Testament and Its Study (H)	
Select 3 additional hours of Arts & Humanities		3
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00. Minimum GPA in all PHIL and REL courses 2.50		
Core		
Select 6 hours of the following:		6
PHIL 3113	Ancient Greek Philosophy (H)	
PHIL 3213	Philosophy in the Age of Enlightenment (H)	
PHIL 3313	19th to 21st Century Philosophy (H)	
PHIL 3003	Symbolic Logic (Q)	3
PHIL 3413	Ethical Theory (H)	3
PHIL 3613	Philosophy of Religion (H)	3
Select a minimum of 13 additional hours in PHIL: up to six hours in 2000-level PHIL courses and the remainder in upper-division PHIL courses.		13
CPSY 3003	Introduction to Counseling and Related Professions	3
Select 12 hours of upper-division REL courses, with at least 3 hours from Non-Western Religious Studies		12
Hours Subtotal		**43**
Electives		
Select 15 hours		15
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Suggested courses:		
CPSY 3013	Introduction to Helping Skills	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
or PSYC 3443	Psychopathology (S)	
or PSYC 4163	Psychology of Prejudice and Discrimination (D)	
or PSYC 4213	Conflict Resolution (S)	
or PSYC 4283	Health Psychology	
Hours Subtotal		**15**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
PHIL 1113 or PHIL 2013 or PHIL 1213	Introduction To Philosophy (H) or Philosophical Classics (H) or Philosophies of Life (H)	3
1713 First Semester Foreign Language		3
General Education courses		5
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
1813 Second Semester Foreign Language		3
General Education courses		10
	Hours	**16**

Sophomore		
Fall		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 3113	Ancient Greek Philosophy (H)	3
2000-level Foreign Language		3
General Education courses		6
	Hours	**15**
Spring		
PHIL 3213	Philosophy in the Age of Enlightenment (H)	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
PHIL 3313	19th to 21st Century Philosophy (H)	3
PHIL 3413	Ethical Theory (H)	3
Major, College, and Elective courses		9
	Hours	**15**
Spring		
PHIL 3991	Contemporary Philosophy Research	1
Major, College, and Elective courses		14
	Hours	**15**
Senior		
Fall		
PHIL 3003	Symbolic Logic (Q)	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

The Art and Science of Critical Thinking (ASCT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Minor Coursework: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
PHIL 1313	Logic and Critical Thinking (A)	3
PHIL 2313	Asking the Right Questions (A)	3
Select 12 hours of the following, 6 hours must be PHIL:		12
PHIL 3003	Symbolic Logic (A)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3743	Science and Human Values (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 3933	Creation and Evolution	
PHIL 4003	Mathematical Logic and Computability	
PHIL 4713	Philosophy of Science (H)	
PHIL 4723	Philosophy of Psychology (H)	
PHIL 4733	Philosophy of Biology (H)	
AFAM 4543	Race Theory	
AGEC 3023	Farm to Fork	
AGEC 3703	Issues in Agricultural Policy	
AGLE 3403	Facilitating Social Change in Agriculture	
ECON 3023	Managerial Economics	
ECON 3213	Game Theory and Experimental Economics	
ECON 3703	Introduction to Mathematical Economics	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
ENGL 4033	Discourse Analysis	
ENVR 4573	Ethical Issues in Agriculture and the Environment	
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	
FDSC 4243	Researching Consumer Food Preferences	
GWST 4113	Feminist Theories	
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	
HIST 3903	Introduction to the Study of History	
HLTH 3643	Health Behavior Theory	
HTM 3783	Diversity, Equity, and Inclusion in Hospitality & Tourism (D)	
MSIS 3223	Principles of Data Analytics	
MSIS 3243	Descriptive Analytics	
NREM 3013	Applied Ecology and Conservation	
POLS 3103	Introduction to Political Inquiry	
POLS 4023	Security Analysis and Briefing	
PSYC 3214	Statistical Methods in Psychology	
SOC 3113	Theoretical Thinking in Sociology	
Related courses may be substituted with consent of advisor.		
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

The Art and Science of Critical Thinking, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Minor Coursework: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
PHIL 1313	Logic and Critical Thinking (Q)	3
PHIL 2313	Asking the Right Questions (Q)	3
Select 12 hours of the following, 6 hours must be PHIL:		12
PHIL 3003	Symbolic Logic (Q)	
PHIL 3623	Philosophy of Race (DH)	
PHIL 3743	Science and Human Values (H)	
PHIL 3833	Biomedical Ethics (H)	
PHIL 3933	Creation and Evolution	
PHIL 4003	Mathematical Logic and Computability	
PHIL 4713	Philosophy of Science (H)	
PHIL 4723	Philosophy of Psychology (H)	
PHIL 4733	Philosophy of Biology (H)	
AFAM 4543	Race Theory	
AGEC 3023	Farm to Fork	
AGEC 3703	Issues in Agricultural Policy	
AGLE 3403	Facilitating Social Change in Agriculture	
ECON 3023	Managerial Economics	
ECON 3213	Game Theory and Experimental Economics	
ECON 3703	Introduction to Mathematical Economics	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
ECON 4233	Econometric Applications	
ENVR 4573	Ethical Issues in Agriculture and the Environment	
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	
FDSC 4243	Researching Consumer Food Preferences	
GWST 4113	Feminist Theories	
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	
HIST 3903	Introduction to the Study of History	
HLTH 3643	Health Behavior Theory	
HTM 3783	Diversity, Equity, and Inclusion in Hospitality & Tourism (D)	
MSIS 3223	Principles of Data Analytics	
MSIS 3243	Descriptive Analytics	
NREM 3013	Applied Ecology and Conservation	
POLS 3103	Introduction to Political Inquiry	
POLS 4023	Intelligence and Security Analysis	
PSYC 3214	Statistical Methods in Psychology	
SOC 3113	Theoretical Thinking in Sociology	
Related courses may be substituted with consent of advisor.		
Total Hours:		**18**

Physics

Physics is the science of matter, energy and their interactions. Physics majors learn the fundamental laws governing the natural world, and in so doing develop critical skills of observation and quantitative analysis in both experimental and theoretical settings. Because those skills are increasingly valued in diverse fields in today's technological society, persons trained in physics are found not only in science, but also in fields where analytical skills are vital to success, such as finance, medicine, law and engineering.

The Department of Physics offers three different degree options for students. First, the "BS in Physics" degree is designed for students who seek a broad, comprehensive study of the set of traditional as well as contemporary topics which together comprise the subject of physics, and who ultimately may be interested in obtaining master's and/or doctoral degrees and becoming professional physicists or astronomers. In contrast, the "BS in Applied Physics" degree concentration has been developed for students who wish to combine studies in physics with studies in other areas such as engineering, biology and microbiology (including Pre-Med requirements), geology, business, computer science, mathematics, or perhaps in preparation for graduate degrees in those areas. Our "BS in Physics, Secondary Teacher Certification" degree is aimed to provide students with the basic foundation in physics needed to prepare for a professional career in secondary education. Students who complete this degree are fully certified to teach Physics in the state of Oklahoma upon graduation. The Department also encourages students to consider interdisciplinary study opportunities afforded from a double major or minor with physics. The detailed requirements for all degree programs of the Physics Department can be obtained from the department office or its website: https://physics.okstate.edu/.

During their first two years, physics majors learn the laws of mechanics (forces and motion) and electromagnetism which epitomize the work of Newton and Maxwell, among others. At the same time, students develop their mathematical skills through courses in calculus and differential equations.

During their last two years, physics majors delve into advanced topics including the quantum and relativistic physics of Schroedinger, Einstein and their colleagues. Courses in laboratory and computational methods further develop experimental abilities. Students are also encouraged to work in the department's research labs or astronomical observatory. Students pursuing the BS in physics take additional physics courses and do a senior project. Students seeking the BS in applied physics replace the additional physics courses with upper-division courses in their chosen areas.

Please contact Britney Mann, Sr. Academic Advisor II (britney.mann@okstate.edu), to learn more!

Courses

PHYS 1001 Frontiers of Physics
Prerequisites: Freshmen and sophomore Physics Majors only or consent of instructor.
Description: Student and faculty discussions of current research topics in physics. Includes laboratory tours and research presentation by faculty. Graded on pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 1014 Descriptive Physics (N)
Description: A survey course presenting the basic concepts and principles of physics with a minimum of mathematics. Motion, waves, temperature, electricity, magnetism, optics, atomic structure, and nuclear energy.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

PHYS 1114 College Physics I (LN)
Prerequisites: Minimum grade of "C" in MATH 1513 or higher.
Description: Algebra-based introductory course covering physics appropriate for applied and life sciences or pre-professional majors. Topics covered - Newtonian mechanics, fluids, thermodynamics, waves, and sound.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 1214 College Physics II (LN)
Prerequisites: PHYS 1114 or PHYS 2014 with a "C" or better or acceptable AP credit.
Description: A continuation of College Physics I for students in the applied-sciences, life-sciences, and pre-professional majors. Covers electricity, magnetism, optics, quantum physics, atomic and nuclear structure.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2014 University Physics I (LN)
Prerequisites: A minimum grade of "C" in MATH 2103 or MATH 2123 or MATH 2144 or acceptable AP credit.
Description: Calculus-based introductory course covering mechanics, waves, heat, and thermodynamics for physical science, math, and engineering majors.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2020 Special Topics in Physics (L)
Description: Laboratory exercises for College Physics I, College Physics II, University Physics I or University Physics II. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lab: 2-6 Contact: 2-6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry

PHYS 2114 University Physics II (LN)
Prerequisites: PHYS 2014 with a "C" or better or acceptable AP credit.
Description: A continuation of University Physics I covering electricity, magnetism, and optics for physical sciences, math, and engineering majors.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 2 Contact: 5 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Lab, Lecture, Combined lecture lab & disc
Department/School: Physics
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

PHYS 2203 University Physics III
Prerequisites: PHYS 2114 with a grade of "C" or better or acceptable AP credit.
Description: A continuation of PHYS 2114 for all Physics majors. Topics include: heat, special relativity, and atomic and nuclear physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 2663 Physics in Medicine (N)
Description: Course will introduce important technologies widely used in modern medicine and the basic physics and physiology that underlies them. Examples include EKG machines, ultrasound imaging, laser surgery, x-ray, CT, PET, and MRI. Field trips required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Natural Science Reasoning

PHYS 2890 Honors Experience in Physics
Prerequisites: Honors Program participation and concurrent enrollment in designated course(s).
Description: A supplemental Honors experience in Physics to partner concurrently with designated lower division PHYS course(s). This course adds a different intellectual dimension to designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Honors Credit

PHYS 3013 Mechanics I
Prerequisites: PHYS 2114 or equivalent, and MATH 2233 or concurrent enrollment.
Description: Mechanics of particles, systems of particles and rigid bodies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3113 Thermal Physics
Prerequisites: PHYS 2203 and MATH 2163 or concurrent enrollment.
Description: Thermometry, heat transfer, elementary theory of specific heat and the three laws of thermodynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3213 Optics
Prerequisites: PHYS 2114 and PHYS 3513, or consent of the instructor.
Description: Geometrical optics; interference, diffraction, dispersion, absorption, and polarization of light.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3313 Introduction to Semiconductor Device Physics
Prerequisites: PHYS 2114 or equivalent.
Description: An introduction to crystal structure, the quantum theory of solids, the physics of semiconductor materials and the pn junction, with an emphasis on applications to semiconductor devices. Same course as ECEN 3903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3323 Modern Laboratory Methods I
Prerequisites: PHYS 2014, PHYS 2114.
Description: Introduction to electric and electronic measurements and computer applications in experimental control, data collection and laboratory computation. Experiments on test instruments, integrated electronics, signal processing, computer interfacing, and data acquisition. Previously offered as PHYS 3322.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics

PHYS 3513 Mathematical Physics
Prerequisites: PHYS 2114 and MATH 2163.
Description: Physical applications of vectors, vector calculus and differential equations. Fourier analysis. Orbit geometry, coordinate systems and transformation of coordinates. Matrices and determinants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 3553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in CHEM 1225 or CHEM 1414 or CHEM 1515.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer diagnosis, cancer treatment, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers, and to cancer patients or relatives. Same course as MICR 3553. May not be used for degree credit with PHYS 5553 and MICR 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Physics

PHYS 3623 Modern Laboratory Methods II
Prerequisites: PHYS 2014, PHYS 2114.
Description: Introduction to the operating principles and applications of modern physical methods used in research. Laboratory experiments with lasers, wave propagation, thermometry, radiation detection, optical interferometry, and spectroscopy.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Physics

PHYS 3713 Modern Physics
Prerequisites: PHYS 2203 with a “C” or better.
Description: This is the first course in the undergraduate quantum physics sequence. It covers the basic features of quantum mechanics as they relate to atomic systems, nuclear matter, photons, and electrons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4003 Computer Simulation Methods in Physics
Prerequisites: PHYS 3013, PHYS 3113, PHYS 3313 or consent of instructor.
Description: Introduction to computer simulation methods used in the physical sciences. Linear systems, nonlinear systems, molecular dynamics, Monte Carlo methods, cellular automata, simple quantum systems. Some knowledge of either C, FORTRAN, Pascal, or BASIC required. Previously offered as PHYS 3993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4010 Special Problems
Prerequisites: Consent of instructor.
Description: Individual laboratory work of an advanced nature. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Physics

PHYS 4113 Electricity and Magnetism
Prerequisites: PHYS 2114 and MATH 2233, or their equivalents.
Description: Electrostatic fields, magnetic fields of steady currents, induced EMFs, Maxwell's equations and introduction to electromagnetic wave theory. Vector analysis used.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4213 Introduction to Nuclear and Particle Physics
Prerequisites: PHYS 2114 and PHYS 3713 or consent of instructor.
Description: Survey of phenomenological aspects of nuclear and particle physics, photon and charged particle interactions with matter, particle detectors, particle accelerators, electromagnetic, strong and weak interactions, models of the nucleus, quark model of mesons and baryons, elementary particles, and symmetries in the Standard Model.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4223 Introduction to General Relativity
Prerequisites: Minimum grade of "C" in both PHYS 2203 and PHYS 3513 or consent of instructor.
Description: An introduction to Einstein's theory of relativity, including the metric description of spacetime, relativistic kinematics in flat spacetime, coordinate transformations, gravity as curved spacetime, and black holes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4263 Introduction to Solid State Physics
Prerequisites: PHYS 3013, PHYS 3713 or consent of instructor.
Description: Structure, specific heat, dielectric properties, lattice vibrations, free electron theory, band structure, and superconductivity of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4313 Molecular Biophysics
Prerequisites: PHYS 1214 or PHYS 2114.
Description: Survey of experimental and computational methods for determining the structure and function of biomolecular assemblies such as proteins and membranes. Techniques to be discussed include: X-ray diffraction, nuclear and electron spin resonance, optical spectroscopy, photobiophysics, kinetic modeling, molecular dynamics, Monte Carlo and homology modeling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4413 Modern Physics II
Prerequisites: PHYS 3013 and PHYS 3713.
Description: Atomic and X-ray spectra; one-dimensional Schroedinger equation; nuclear structure; introduction to statistical mechanics and elementary quantum statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4423 Mechanics II
Prerequisites: PHYS 3013.
Description: Lagrangian and Hamiltonian dynamics, calculus of variations, constrained systems, coupled oscillators, continuous systems and waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4503 Quantum Information
Prerequisites: PHYS 3713 Modern Physics.
Description: Quantum information is rapidly becoming one of the most important multidisciplinary fields in physics research. This class will focus on building an understanding of the core concepts behind this emerging area and why it is expected to revolutionize technology in the following decades. Topics will include measurements in quantum mechanics, the EPR paradox, classical and quantum information/computers, and quantum cryptography. May not be used for degree credit with PHYS 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4513 Introductory Quantum Mechanics
Prerequisites: PHYS 3713.
Description: Uncertainty principle, setting up Schroedinger equation (time dependent as well as time independent) and solving it for linear oscillator, hydrogen atom, periodic, and other potentials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4663 Radioactivity and Nuclear Physics
Prerequisites: PHYS 3713 or consent of instructor.
Description: Natural and artificial radioactivity, decay laws; absorption, detection and measurement of radiations; nuclear transformations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4712 Senior Project
Description: Advanced individual experimental projects. Project proposal, formal laboratory report, and oral presentation are required.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Physics

PHYS 4813 Electromagnetic Radiation
Prerequisites: PHYS 4113 with minimum grade of "C."
Description: Electromagnetic wave theory, reflection and refraction of electromagnetic waves; resonant cavities, wave guides, fiber propagation of electromagnetic waves; radiation sources; relativistic description of electromagnetic fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics

PHYS 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Physics
General Education and other Course Attributes: Honors Credit

PHYS 5000 Master's Thesis Research or Report
Prerequisites: Consent of major professor.
Description: Thesis research or report for master's degree. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5110 Seminar
Prerequisites: Graduate standing in physics.
Description: Special topics in physics. Offered for variable credit, 1-5 credit hours, maximum of 20 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5113 Statistical Thermodynamics and Kinetic Theory
Prerequisites: PHYS 3113.
Description: Fundamental concepts of thermodynamics: first, second and third laws; thermodynamic potentials. Statistical physics: Maxwell-Boltzman, Fermi-Dirac, Bose-Einstein distribution functions. Kinetic theory: transport phenomena, Boltzman H Theorem, the approach to thermodynamic equilibrium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5123 Geometrical Optics
Prerequisites: PHYS 3213 or consent of instructor.
Description: Foundations of geometrical optics, geometrical theory of optical imaging, geometrical theory of aberrations, image forming instruments. Same course as ECEN 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5133 Laser Spectroscopy
Prerequisites: PHYS 5163.
Description: Principles of different types of laser spectroscopy based on fluorescence, absorption, saturated absorption, absorption in a cavity: Infrared, Raman, light scattering, four wave mixing, CARS, phase conjugation, two photon absorption, double resonance, and multiphoton ionization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5163 Lasers
Prerequisites: PHYS 4813 or equivalent.
Description: Semi-classical description of absorption and emission of light by matter; effects of cavities and optical elements; theory of lasers' gas, liquid, solid state and semiconductor. Electro-optics. Techniques of mode-locking, Q-switching, phase conjugation, Fourier transform optics. An introduction to non-linear optics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5213 Statistical Mechanics
Prerequisites: PHYS 5113 and PHYS 5613 or consent of instructor.
Description: Classical and quantum mechanical distribution functions for independent particles; interacting classical and quantum systems, superfluidity, phase transitions and critical phenomena, approximation methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5220 Physics Topics for Teachers
Prerequisites: Teaching experience or consent of instructor.
Description: Special topics for elementary and secondary science teachers to improve their subject matter competence. Content varies, depending on the needs of specific groups of teachers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5263 Particle Physics
Prerequisites: PHYS 5613 or consent of instructor.
Description: Phenomenology of elementary particles: quark model, electromagnetic, weak, and strong interactions of quarks, leptons, and gauge bosons, Feynman diagram techniques, parton model, gauge symmetries, spontaneous symmetry breaking, Standard model, experimental tests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5303 Physical Optics
Prerequisites: PHYS 3213 or consent of instructor.
Description: Multiple beam interference, diffractions, imaging, near field optical probes of matter, surface plasmons, light scattering from random media, optical coherence tomography - biomedical applications, negative materials, perfect lenses and super resolution. Same course as ECEN 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5313 Electromagnetic Theory
Prerequisites: PHYS 5453.
Description: Electric and magnetic fields in free space and in matter. Boundary value problems, Green's functions, stress tensors, multipole expansions, thermodynamics; electromagnetic waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5350 Special Problems
Prerequisites: Graduate standing in physics.
Description: Special problems of experimental or theoretical nature. Largely individual work with written report required. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 5413 Classical Mechanics
Prerequisites: PHYS 4423 or consent of instructor.
Description: Generalized coordinates and advanced dynamics; coupled systems, wave motion; theory of elasticity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5453 Mathematical Methods for Physicists
Prerequisites: PHYS 3513.
Description: Introduction to mathematical techniques used in analyzing problems in physics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5503 Frontiers of Quantum Information Science
Description: Quantum information science envelops a broad spectrum of fields including physics, computer science, mathematics, and electrical engineering. This course will explain important milestones achieved in quantum information science and discuss frontier research on building a real-world quantum computer in suitable physical systems, such as superconducting qubits, topological qubits, trapped ions, neutral atoms, and nitrogen vacancy centers. No credit for students with credit in PHYS 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5523 Radiation Detection and Measurement
Prerequisites: PHYS 3713 and PHYS 4213.
Description: Overview of radiation detection and measurement. Instrumentation, statistics of radiation measurements, review of atomic and nuclear physics, review of radiation interaction with matter, nuclear electronics, gas-filled and scintillation detectors, semiconductor detectors, radiation counting and spectroscopy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5533 Dosimetry and Radiation Protection
Prerequisites: PHYS 4663 and PHYS 5523 or consent of instructor.
Description: Radiation dosimetry quantities, effects of ionizing radiation on the human body, basic radiation protection concepts, x-ray and y-ray interaction and attenuation with matter, charged particle and neutron interaction with matter, charged particle equilibria, Bragg-Gray Cavity theory, quantifying dose from radionuclide sources, survey of dosimetric instrumentation, dosimetry with ionization chambers, integrating dosimeters and personal dosimetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5553 Foundations of Cancer
Prerequisites: Minimum grade of "C" in (or equivalent) or MICR 3033 (or equivalent) or consent of instructor.
Description: Course covers six themes: causes of cancer, cancer genetics, cancer diagnosis, cancer treatment, immuno-oncology, and cancer prevention. Course will illustrate both setbacks and victories in applying the scientific method to biological processes and the evidence for and assumptions made in these approaches will be discussed. Designed for future: medical doctors, cancer researchers, medical engineers, and to cancer patients or relatives. Same course as MICR 5553. May not be used for degree credit with PHYS 3553 or MICR 5553.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Physics

PHYS 5563 Radioactivity and Nuclear Physics Laboratory
Prerequisites: PHYS 4663 and PHYS 5523 or consent of instructor.
Description: The primary objective of this course is to provide students with hands-on experience in a range of experimental techniques and with a variety of instrumentation routinely used in radiation detection and dosimetry, nuclear and particle physics, and in radiotherapy and medical imaging. The course content can be thought of as being of two types: 1) general experimental methods in physics and 2) methods of radiation detection and measurement.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Physics

PHYS 5573 Radiation Biophysics
Prerequisites: PHYS 5533 or consent of instructor.
Description: Introduction to radiation biophysics, structure of DNA and its relationship to carcinogenesis, stochastic nature or radiation interaction with matter, radiation chemistry, cell survival curves, radiation damage models, DNA damage response.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5593 Physics of Radiation Therapy
Prerequisites: PHYS 5533 or consent of instructor.
Description: Overview of radiation therapy, dosimetry in radiation therapy, megavoltage x-ray and electron therapy, manual treatment planning, computer-based treatment planning, brachytherapy, proton therapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5613 Quantum Mechanics I
Prerequisites: PHYS 5453.
Description: Postulates of quantum mechanics. Operators, commutation relations, eigenfunctions. Schroedinger, Heisenberg and interaction formalisms, angular momentum and central field problems; nondegenerate perturbation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5663 Solid State Physics I
Prerequisites: PHYS 4513.
Description: Crystal structure, cohesive energy of ionic crystals and metals, specific heats, free electron theory of metals, band theory, Brillouin zones, insulators and alloys; magnetic properties, optical properties and thermal and electrical conductivity of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5713 Solid State Physics II
Prerequisites: PHYS 5663 or equivalent.
Description: Symmetry, dielectric properties, ferroelectrics, magnetic properties, mechanical properties, and defects of solids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5813 General Relativity
Prerequisites: PHYS 5453 or consent of instructor.
Description: Theory and applications of general relativity: the principle of equivalence, general coordinate invariance, tensors, affine connections, Einstein's field equations, classic tests, application to stellar dynamics, black holes, and cosmology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 5960 Problems in Chemical Physics
Prerequisites: Consent of instructor.
Description: Intermolecular forces, interaction of radiation with matter in bulk form, dielectric properties of matter, polymer physics and quantum theory of biopolymers. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6000 Doctoral Dissertation Research
Prerequisites: Admission to candidacy and permission of major professor.
Description: Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6010 Advanced Graduate Seminar
Prerequisites: Consent of instructor.
Description: Special topics of an advanced nature in physics. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6113 Advanced Theory of Solids
Prerequisites: PHYS 5663.
Description: Many-body techniques, transport processes, band theoretical techniques, superconductivity, dynamics of electrons in a magnetic field, and alloys.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6213 Group Theory for Physics
Prerequisites: PHYS 5453.
Description: Group theory and imperfections in crystals. Dislocation theory and color centers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6243 Semiconductors I
Prerequisites: PHYS 5113, PHYS 5613, PHYS 5663.
Description: The first part of a survey of the physics of semi-conductors. Bonding and structure, crystal growth, epitaxial growth, band theory, phonons, photons, defects, intrinsic and extrinsic statistics, trapping and recombination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6260 Special Topics in High Energy Physics
Prerequisites: PHYS 5263 or consent of instructor.
Description: Advanced topics of current interest in high-energy physics: collider physics, supersymmetry, unification, flavor physics, string phenomenology, extra dimensions. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Physics

PHYS 6313 Quantum Mechanics II
Prerequisites: PHYS 5613.
Description: Scattering theory, many-particle quantum mechanics and application to atomic and molecular systems; degenerate and time-dependent perturbation theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6323 Quantum Field Theory
Prerequisites: PHYS 6313 or consent of instructor.
Description: Relativistic Quantum Mechanics: Klein-Gordon field, path integral formulation of Quantum Mechanics, Feynman diagrams, Quantum Electrodynamics, relativistic scattering radiative corrections, renormalization and critical exponents, non-Abelian gauge theories, spontaneous symmetry breaking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6343 Semiconductors II
Prerequisites: PHYS 6243.
Description: The second part of the semiconductors sequence. Transport phenomena, junctions, devices, heterostructures, and optical properties.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6413 Nonlinear Optics
Prerequisites: PHYS 5163, PHYS 5313, and PHYS 5613.
Description: The response of matter at high radiation powers; nonlinear susceptibilities. Wave propagation in nonlinear medium; three wave and four wave interactions; saturated absorption, optical switching and limiting; two photon and stimulated Raman processes; Self focusing; solitons.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6423 Quantum Optics
Prerequisites: PHYS 5163, PHYS 5613 or consent of instructor.
Description: Quantization of Electromagnetic Fields, coherence, quantum entanglement, parametric down conversion, two photon interferometry, Bell's inequalities, quantum teleportation and cryptography, cavity QED.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6513 Advanced Topics in Solid State Physics
Prerequisites: PHYS 5663 or equivalent.
Description: Interaction of radiation and matter, neutron scattering, phase transitions, magnetic resonance and cooperative phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6613 Advanced Nuclear and Particle Physics
Prerequisites: PHYS 5263, PHYS 6313; or consent of instructor.
Description: Renormalization of quantum field theories, spontaneous symmetry breaking, Standard model, flavor physics, grand unification, super-symmetry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6713 Advanced Electromagnetic Radiation
Prerequisites: Consent of instructor.
Description: Radiation theory, wave guides, scattering and dispersion relations; relativity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3213 or ECEN 3813.
Description: Advanced optics including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Ultrashort laser pulses. Same course as CHEM 6803 & ECEN 6803. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Physics

PHYS 6810 Photonics II: THz Photonics and THz-TDS
Prerequisites: PHYS 6803.
Description: THz photonics and THz time-domain spectroscopy (THz-TDS). Concepts and techniques of driving electronic circuitry with ultrashort laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as CHEM 6810 & ECEN 6810. Previously offered as PHYS 6811. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6820 Photonics II: Spectroscopy II
Prerequisites: PHYS 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as CHEM 6820 & ECEN 6820. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6830 Photonics II: Spectroscopy III
Prerequisites: PHYS 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques including subnanosecond detectors, picosecond streak cameras, and ultrafast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as CHEM 6830 & ECEN 6830. Previously offered as PHYS 6831. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6840 Photonics III: Microscopy I
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and noncontact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as CHEM 6840 & ECEN 6840. Previously offered as PHYS 6841. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6850 Photonics III: Microscopy II
Prerequisites: PHYS 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning, tunneling microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as CHEM 6850 & ECEN 6850. Previously offered as PHYS 6851. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding and compression. Same course as CHEM 6860 & ECEN 6860. Previously offered as PHYS 6861. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6870 Photonics IV: Synthesis and Devices I
Prerequisites: PHYS 6803 and PHYS 6840.
Description: Preparation of functional nanostructures and related optical and electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as CHEM 6870 & ECEN 6870. Previously offered as PHYS 6871. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: PHYS 6803.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence, and electro-optics sampling. Same course as CHEM 6880 & ECEN 6880. Previously offered as PHYS 6881. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

PHYS 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: PHYS 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 cleanrooms. Cleanroom operation including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V Hall, and optical spectral measurement systems. Same course as CHEM 6890 & ECEN 6890. Previously offered as PHYS 6891. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Physics

Undergraduate Programs

- Physics, BS (p. 1768)
- Physics: Applied Physics, BS (p. 1771)
- Physics: Secondary Teacher Certification, BS (p. 1773)

Graduate Programs

Prerequisites

Thirty semester hours of physics beyond the elementary course work and mathematics courses through advanced calculus and differential equations are normally required.

The Master of Science Degree

Students can choose between a thesis or non-thesis plan. For both plans, the required courses are the following:

Code	Title	Hours
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3

The thesis plan requires the successful completion of 30 semester credit hours beyond the BS, which include the required courses; nine semester credit hours of electives in physics, mathematics or an allied field; and the submission of an acceptable thesis along with six credit hours of PHYS 5000 Master's Thesis Research or Report. The thesis is to be based on original and independent research, on a topic chosen in consultation with the student's advisor. The student must successfully defend the thesis in an oral examination. The non-thesis plan requires 32 semester credit hours beyond the BS degree, including the required courses; fifteen hours of electives (with up to nine credit hours of senior level courses); and two credit hours of library research (PHYS 5000 Master's Thesis Research or Report) on a topic chosen in consultation with the student's advisor. A completed written report based on the library research must be orally presented to the student's advisory committee. For both plans, the electives must be chosen in consultation with the student's advisory committee.

Also available at the MS level is an option in optics and photonics, in association with the School of Electrical and Computer Engineering. Students may pursue one of two plans, both of which require 24 credit hours of coursework with at least one course taken outside the student's specialization. Beyond this, the first plan (30 credit hours) requires an additional six hours of research and a successful defense of a thesis. The second plan (32 credit hours) requires an additional six hours of coursework and a two-credit-hour report.

The Doctor of Philosophy Degree

The following physics courses are required:

Code	Title	Hours
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5213	Statistical Mechanics	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
PHYS 6313	Quantum Mechanics II	3

Three additional PHYS prefix courses at the 5000- or 6000-level, including at least one course not in the student's specialization, must be completed. Additional courses reflecting the candidate's specialization may be required by the advisory committee. Seventy-two (72) semester hours of credit beyond the bachelor's degree, or sixty semester hours of credit beyond the master's degree are required. A minimum of two-thirds of the graduate course credits must be in physics. No more than six credit hours of eligible physics coursework at the 4000-level can be counted toward graduate credit and no more than 12 total credit hours of eligible coursework in all subjects at the 3000- or 4000-level can be counted toward graduate credit. Courses taken at another institution will be evaluated by a faculty committee to determine whether they satisfy any requirements.

A Photonics PhD program shared with the Electrical and Computer Engineering Department is also available, with Physics as the home department. Details of the multidisciplinary photonics PhD program are found in the “Graduate College (p. 2927)” section of the Catalog.

The most important single requirement for the PhD in physics is the presentation of an acceptable dissertation which represents original research work by the student and which demonstrates the student's ability to do independent study as well as to plan and carry out future research in his or her field. Full information on graduate programs in the Department of Physics is available from the Graduate Coordinator or from the department website at physics.okstate.edu (https://physics.okstate.edu/).

Minors

- Physics (PHYS), Minor (p. 1767)

Faculty

Flera Rizatdinova, PhD—Professor and Head
Regents Professors: Kaladi Babu, PhD
Professors: Donna K. Bandy, PhD; Eric Benton, PhD; Mario Borunda, PhD; Joseph Haley, PhD; Alexander Khanov, PhD; Yingmei Liu, PhD (Noble Chair); David McIlroy, PhD; Al Rosenberger, PhD; Aihua Xie, PhD
Associate Professors: Donghua Zhou, PhD

Assistant Professors: Thomas Bilitewski, PhD; Vedran Brdar, PhD; Wenlei Chen, PhD; Julius De-Rojas, PhD; Dorival Goncalves-Netto, PhD; Mayukh Lahiri, PhD; Derek Meyers, PhD
Teaching Assistant Professor: Kim Zoldak, PhD
Emeriti Professors: Bruce Ackerson, PhD; Robert Hauenstein, PhD; Joel J. Martin, PhD; Stephen W.S. McKeever, PhD (Regents Professor); John W. Mintmire, PhD (Regents Professor); Satya Nandi, PhD (Regents Professor); Jacques H.H. Perk, PhD; Peter M.A. Sherwood, PhD (Regents Professor); Peter O. Shull, PhD; James P. Wicksted, PhD

Physics (PHYS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sheri Orr, 404 NRC, 405-744-3729

Minimum Grade Point Average in Minor Coursework: 2.00
Total Hours: 20

Code	Title	Hours
Minor Requirements		
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
PHYS 2203	University Physics III	3
Select 9 hours of upper-division PHYS or ASTR [1]		9
Total Hours		**20**

[1] No more than 3 hours upper-division ASTR may apply

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Physics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Course designated (N)		2
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
PHYS 2014	University Physics I (LN)	4
Foreign Language		
0-6 hours. See note 3		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in each course		
Core Requirements		
PHYS 2114	University Physics II (LN)	4
PHYS 2203	University Physics III	3
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHYS 3513	Mathematical Physics	3
PHYS 3623	Modern Laboratory Methods II	3
PHYS 3713	Modern Physics	3
PHYS 4113	Electricity and Magnetism	3
PHYS 4513	Introductory Quantum Mechanics	3
PHYS 4712	Senior Project	2
PHYS 4813	Electromagnetic Radiation	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Additional Requirements		
Select 9 upper-division hours in Physics or Astronomy		9
Select 6 upper-division hours from: BIOL, CS, ENSC, GEOL, MAE, MATH, MEEN, PHIL		6
Hours Subtotal		**54**
Electives		
Select 13 hours		13
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Suggested electives: ASTR, CS, and MATH		
Hours Subtotal		**13**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and

Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education courses		5
	Hours	**14**
Spring		
MATH 2153	Calculus II (Q)	3
PHYS 2014	University Physics I (LN)	4
General Education courses		9
	Hours	**16**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 2114	University Physics II (LN)	4
General Education courses		9
	Hours	**16**
Spring		
PHYS 2203	University Physics III	3
PHYS 3513	Mathematical Physics	3
MATH 2233	Differential Equations	3
College and Elective courses		6
	Hours	**15**
Junior		
Fall		
PHYS 3013	Mechanics I	3
PHYS 3713	Modern Physics	3

PHYS 4113	Electricity and Magnetism	3
MATH 3013	Linear Algebra (Q) (Recommended)	3
Major, College, and Elective courses		3
	Hours	**15**
Spring		
PHYS 4513	Introductory Quantum Mechanics	3
PHYS 4813	Electromagnetic Radiation	3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
PHYS 3323	Modern Laboratory Methods I	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
PHYS 3623	Modern Laboratory Methods II	3
PHYS 4712	Senior Project	2
Major, College, and Elective courses		9
	Hours	**14**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Physics: Applied Physics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Course designated (N)		2
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
PHYS 2014	University Physics I (LN)	4
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in each course		
Core Requirements		
PHYS 2114	University Physics II (LN)	4
PHYS 2203	University Physics III	3
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHYS 3513	Mathematical Physics	3
PHYS 3623	Modern Laboratory Methods II	3
PHYS 3713	Modern Physics	3
PHYS 4113	Electricity and Magnetism	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Additional Requirements		
Select 9 upper-division hours in in any one academic department [2]		9
Select 9 upper-division hours [2]		9
Hours Subtotal		**49**
Electives		
Select 18 hours [2]		18
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Suggested electives: ASTR, CS, and MATH		
Hours Subtotal		**18**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral health program may be used for these 18 hours and up to 12 hours of electives.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
General Education courses		5
	Hours	**14**
Spring		
CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
PHYS 2014	University Physics I (LN)	4
General Education courses		3
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 2114	University Physics II (LN)	4
General Education courses		9
	Hours	**16**
Spring		
PHYS 2203	University Physics III	3
PHYS 3513	Mathematical Physics	3
MATH 2233	Differential Equations	3
College and Elective courses		6
	Hours	**15**
Junior		
Fall		
PHYS 3013	Mechanics I	3
PHYS 3713	Modern Physics	3
PHYS 4113	Electricity and Magnetism	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
PHYS 3323	Modern Laboratory Methods I	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
PHYS 3623	Modern Laboratory Methods II	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Physics: Secondary Teacher Certification, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1,2]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1,2]	4
PHYS 2014	University Physics I (LN) [1,2]	4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
PHIL 3933	Creation and Evolution	3
Natural & Mathematical Sciences		
MATH 2153	Calculus II (Q)	3
BIOL 1113	Introductory Biology (N)	3
CHEM 1515	Chemistry II (LN) [2]	5
PHYS 2114	University Physics II (LN)	4
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**19**
Major Requirements		
Physics Core		
Minimum GPA 2.50 and minimum grade of "C" or "P"		
PHYS 2203	University Physics III	3
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHYS 3513	Mathematical Physics	3
PHYS 3623	Modern Laboratory Methods II	3
PHYS 3713	Modern Physics	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
STAT 4013	Statistical Methods I (Q)	3
Additional Requirements:		
Secondary Education Professional Core		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom [3]	6
Hours Subtotal		**56**
Electives		
Select 5 hours		5
May need to include 6 hours of a foreign language (see note 3)		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**5**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

Minimum GPA 2.50 and minimum grade of "C" or "P."

3

Full admission to Professional Education required.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be applied to degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4

SMED 1012	Inquiry Approaches to Teaching	2
	Hours	**15**
Spring		
CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
PHYS 2014	University Physics I (LN)	4
General Education courses		3
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
PHYS 2114	University Physics II (LN)	4
General Education courses		11
	Hours	**18**
Spring		
MATH 2233	Differential Equations	3
PHYS 2203	University Physics III	3
PHYS 3513	Mathematical Physics	3
SMED 3013	Knowing and Learning in K-12 Education	3
SPED 3202	Educating Exceptional Learners	2
General Education or Electives		3
	Hours	**17**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
PHIL 3933	Creation and Evolution	3
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHYS 3713	Modern Physics	3
	Hours	**15**
Spring		
PHYS 3623	Modern Laboratory Methods II	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
Major, College, and Elective courses		9
	Hours	**16**
Senior		
Fall		
PHYS 4113	Electricity and Magnetism	3
STAT 4013	Statistical Methods I (Q)	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
Major, College, or Elective		3
	Hours	**15**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Political Science

As a Political Science major, students will work with experts in American government, international and comparative politics, and policymaking to explore important, relevant questions to their academic and professional development. Some of these questions include:

- Which skills will prepare students to serve as leaders in their communities, be it in local politics or national governance?
- How can the study of law make students effective citizens and advocates for supporting their fellow citizens?
- What can students learn about effective governance and policymaking by studying countries from across the world?
- How can students best understand modern challenges to society, including environmental degradation, war, inequality, and terrorism, and apply this knowledge in order to make meaningful contributions in addressing them?
- What practices and processes help ensure a fair and just society for all individuals?

Through rigorous coursework, individual research projects, and practical experiences, students will not only be prepared for an ever-changing job market, but also develop a passion for politics — ready to participate in the vital work required of democratic citizens in the twenty-first century!

Graduates have gone on to contribute to a varied set of professions, including local, state, and national government, law, non-profit work, advocacy, academia, and international business.

The department offers several degree options that offer a rich study of topics, such as law, global politics, and campaigning, while also permitting the flexibility to add double-majors and minors from other departments:

- Political Science, B.A. or B.S.
- Political Science: Global Politics, B.A. or B.S.
- Political Science: Practical Politics: Campaigning, Lobbying, and Policymaking, B.A. or B.S.
- Political Science: Pre-Law, B.A. or B.S.
- Political Science: Public Policy, B.A.

The minimum GPA for a political science degree is 2.50 with a minimum grade of "C" in all upper-division political science and related upper-division coursework. Additional flexibility in the degree program is offered through internships, and opportunities to work with professors in developing independent study courses in areas where the department may not offer regular coursework.

In addition, departmental minors that allow for an in-depth, focused study on key topics, including :

- Campaigns and Lobbying
- Intelligence and Security Analysis
- Law and Legal Studies

The required GPA for a minor is 2.50.

Courses

POLS 1010 Studies in American Government
Description: Special study in American government to allow transfer students to fulfill general education requirements as established by Regents' policy. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 1113 American Government
Description: Organization, processes and functions of the national government of the United States. Satisfies, with HIST 1103 or 1483 or 1493, the State Regents requirement of six credit hours of American history and American government before graduation. Previously offered as POLS 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2000 Topics in American Politics (S)
Description: Introductory examination of timely topics and issues in American Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2010 Topics in International Relations (G)
Description: Introductory examination of timely topics and issues in International Relations. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 2013 Introduction to International Relations (S)
Description: Analysis and explanation of the political, economic, and social relationships that exist between countries. Broad topics include major actors in international relations, the role of power on the global stage, interstate and civil conflict, cooperation, and economic security. The assumptions of major international relations theories, such as realism and liberalism, are explained. Previously offered as POLS 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2020 Topics in Public Law (S)
Description: Introductory examination of timely topics and issues in Public Law. Maybe repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 2023 The Individual And The Law
Description: Introduction to the U.S. Constitution, legal reasoning, legal research techniques, and topical issues of U.S. public law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2030 Topics in Public Policy & Administration
Description: Introductory examination of timely topics and issues in Public Policy and Administration. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2033 Introduction to Public Administration
Description: Public administration, including administration, administrative organization, decision-making, governmental public relations and administrative responsibilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2110 Topics in Comparative Politics (G)
Description: Introductory examination of timely topics and issues in Comparative Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 2113 Introduction to Comparative Politics (GS)
Description: A study of the domestic politics, society, and economies in countries around the world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 2213 Fundamentals of Political Science
Description: This course provides an overview of Political Science as a field of study, and it provides students with basic research literacy and other skills essential to success as a Political Science major.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2313 Social Justice Politics (D)
Description: This course examines race, ethnicity, class, gender, sexuality, religion, age, ability, and in a number of realms, particularly the political. Specific social justice issues discussed include immigration reform, religious accommodations in the workplace, the gender gap In wages and political office holding, income and wealth inequality, racial and ethnic discrimination, same-sex marriage, ageism and disability access.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 2423 Voting and Elections
Description: A study of the major issues, voting patterns, institutional factors, and political factors shaping elections with a focus on current U.S. elections. May include a discussion of how U.S. elections compare to other countries. Previously offered as POLS 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 2523 Black Political Thought
Description: Black Political Thought develops a set of critical tools to help explain the distinctiveness of Black Politics. It pursues a deep understanding of the Black intellectual traditions that inform an enhanced understanding of Political Theory's core concepts. Using the lens of the African diaspora it investigates the abiding concerns of Political Theory, i.e., the meanings of justice, freedom, and equality; the nature of power, obligation, and "the good life." Same course as AFAM 2523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 2890 Honors Experience in Political Science
Prerequisites: Honors Program participation and concurrent enrollment in a designated Political Science course.
Description: A supplemental Honors experience in Political Science to partner concurrently with designated Political Science course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Honors Credit

POLS 2993 Honors Tutorial in Political Science
Prerequisites: POLS 1113. Honors standing, and invitation by head of department.
Description: For the special needs of the sophomore-level honors student majoring in political science who wishes to study individualized topics at an accelerated pace in a tutorial format. After mastering basic principles in an area of interest the student will conduct independent research under close faculty supervision and prepare a report or reports.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3003 The Soviet Union: History, Society and Culture(GS)
Description: A comprehensive view of the Soviet Union, stressing those issues in the political, economic, technological, geographical and cultural spheres which are most relevant to the current situation. Accessible to beginning undergraduates. Same course as HIST 3003 & RUSS 3003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 3033 International Law
Description: International laws between countries arise from customary law, treaties, and other international agreements. This course examines international law surrounding international diplomacy, conflict, organizations, and the international political reasons for the creation, compliance, and violation of such laws.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3053 Introduction to Central Asia Studies (IS)
Description: A comprehensive view of newly-emerged Central Asian states examining the history, politics, economics, geography, and culture of Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan as reflected in their thoughts, religion, literature, and architecture, in the past, and the strategic importance of their natural wealth for the present and future. Same course as GEOG 3053, GLST 3053, HIST 3053 & RUSS 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3090 Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written paper(s). Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3100 Political Science Internship
Prerequisites: Consent of department.
Description: Internship education experience in a specific subfield in the discipline of political science. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 3101 Oklahoma Intercollegiate Legislature
Description: OSU Oklahoma Intercollegiate Legislature provides students with hands on experience in the legislative process. It is a mock legislature with the intended goal of passing bills and learning parliamentary procedure. Students learn how to research and draft legislation, build coalitions, and debate the merits of their bills. Participation in O.I.L. gives students a behind the scenes look at how state government conducts business. The result is academic learning in a real world setting. This course is a pass/fail grade. Offered for fixed credit, 1 credit hour.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3103 Introduction to Political Inquiry
Prerequisites: Sophomore, Junior and Senior standing.
Description: The scope and methods of political science. Scientific methodology applied to political phenomena, hypothesis, measurement, literature review, research designs, introductory data analysis and writing in political science. Previously offered as POLS 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3123 Russian & Eurasian Politics (G)
Description: An overview of the major political, social, and economic challenges facing Russia and its neighbors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3143 European Politics (G)
Description: An overview of the major political, social, and economic challenges facing European countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3163 African Politics (G)
Description: An overview of the major political, social, and economic challenges facing African countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 3193 Latin American Politics (GS)
Description: An overview of the major political, social, and economic challenges facing Latin American countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension, Society & Human Behavior

POLS 3223 Asian Politics
Description: An overview of the major political, social, and economic challenges facing Asian countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3313 Middle Eastern Politics
Description: An overview of the major political, social, and economic challenges facing Middle Eastern countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3353 Political Parties
Description: An examination of political parties, including the role of parties in elections and government, how parties have changed through time, why there are only two major parties in the United States, and what factors influence how parties behave.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3443 Pol Campaigns And Candidacy
Description: Planning, fundraising, targeting, public opinion, support operations, voter contact, the mass media and candidate activities. Previously offered as POLS 3414.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3453 U.S. Congress
Description: The power and organization of legislatures, as well as the selection and behavior of legislators. Special attention given to the U.S. Congress.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3483 The American Presidency
Description: The politics of presidential selection, removal and succession; formal and informal powers of the president; relations with Congress, the national judiciary and national executive branch; proposed reforms and the vice-presidency.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3493 Public Policy
Prerequisites: Any one of POLS 1013, POLS 2033, ECON 1113.
Description: Identification of policy options open to policy makers and examination of measurements and rationales underlying governmental programs. May not be used for degree credit with POLS 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3513 Public Opinion and Polling
Description: The nature of public opinion. Public opinion polling, the factors influencing opinion formation, and the effects of public opinion on policy and policy makers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3523 Money, Media And Politics
Prerequisites: POLS 1113.
Description: Techniques used by successful candidates for elective office to present their positions to the voting public. Beginning with the basic elements of fundraising exploration of current campaign finance laws, funding techniques and campaign budgeting. Message development, media production and ad placement. Preparation of a fundraising strategy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3533 Lobbying and the Power of Organized Interests
Prerequisites: POLS 1113.
Description: An exploration of how political scientists understand organized interests and their lobbying and grassroots activities. Topics may include the origin of interests, collective action problems, lobbying techniques, and grassroots activism, campaign finance, influence of groups in government, and who is powerful and why.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3613 State and Local Government
Description: Political processes, government and administration of American states, cities and counties; special emphasis on Oklahoma.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3663 Introduction to Political Thought
Description: The teachings of the three lasting traditions of Western political thought: classical, Christian and modern.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3683 Politics in Contemporary Film
Prerequisites: POLS 1113.
Description: The effect of politics on contemporary film. Exploration of the often subtle political imagery and symbolism contained in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3893 Terrorism & Counterterrorism
Description: This course examines the definition, causes, and consequences of terrorist activity. Special emphasis will also be given to key domestic and international counterterrorism responses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3953 Minorities in the American Political System (DS)
Prerequisites: POLS 1113.
Description: Examination of mass and elite level behavior of minorities in the contemporary U.S. political system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity, Society & Human Behavior

POLS 3963 State Courts and the Bar
Description: This course will cover the various constraints that exist within the decision-making outcomes of state courts, as well as the institutional biases found within state run criminal justice systems. It looks at the increasingly partisan nature of state court election cycles and the contemporary status of the legal academy, the Bar, and the economics of law firms. It will be particularly useful to those students thinking about continuing their education with the pursuit of a law degree.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 3973 Race, Politics and Sports (D)
Prerequisites: POLS 1113.
Description: Historical, as well as the contemporary relationship, between race, politics and sports in the U.S. political system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Diversity

POLS 3983 Courts and Judicial Process (S)
Description: The American judiciary and legal process from a political perspective with particular emphasis on judicial organization and powers, recruitment, fact-finding, decision-making, impact of decisions, the legal profession and relations among courts. Oklahoma judicial organization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 3993 Legal Research And Analysis
Prerequisites: POLS 2023 or HONR 2013.
Description: Introduction to legal research methods, including state and federal reported cases, digests, annotated codes, state and federal administrative regulations, and computerized legal research, as well as an introduction to legal reasoning and analysis and the preparation of case briefs and memoranda.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4000 Advanced Topics in American Politics
Prerequisites: POLS 1113 or consent of instructor.
Description: In-depth examination of critical topics and issues in American politics, including American political behavior and political leadership. May be repeated with different topics. May not be used for degree credit with POLS 5710. Offered for variable credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4010 Advanced Topics in International Relations
Prerequisites: POLS 2013 or POLS 2113 or consent of instructor.
Description: In-depth examination of critical topics and issues in International Relations. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 5210.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4013 American Foreign Policy
Description: An introduction to the history of America's foreign policy (with an emphasis on foreign relations since WWII), the dominant themes and goals of American foreign policy throughout time, contemporary issues that face the United States, and how foreign policy is made and enforced. May not be used for degree credit with POLS 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4020 Advanced Topics in Comparative Politics
Prerequisites: POLS 2013 or POLS 2113 or consent of instructor.
Description: In-depth examination of critical topics and issues in Comparative Politics. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 5410.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4023 Intelligence and Security Analysis
Description: An introduction to the world of intelligence analysis. Students will gain a basic understanding of the different types of intelligence, the way intelligence is analyzed, and the ways that analysts present their findings to the consumer. Students will learn critical thinking techniques used by professionals and apply them to hypothetical and real-world problems. May not be used for degree credit with POLS 5223
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4033 Civil Wars (G)
Prerequisites: POLS 1113.
Description: This course focuses on civil wars, insurgencies, and other conflicts that occur within the borders of countries. The course intends to present current theories and understanding of civil wars that can inform the examination and explanation of such conflicts, including why conflicts start, how conflicts end, the goals and strategies of rebel groups and governments, and the long-term effects of conflict are critical to forming domestic and international policies that provide peaceful alternatives to violence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 4043 Global Political Economy
Description: An introduction to the major players, challenges, and theories shaping the modern global economy. Topics include economic development, globalization, trade, and foreign investment. May not be used for degree credit with INTL 5043. Previously offered as POLS 3043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4053 War And World Politics (G)
Description: Students are introduced to the scientific study of war. Topics include why countries engage in conflict, the conduct of war, the ways in which wars end, and how peace is maintained between former rivals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: International Dimension

POLS 4100 Problems of Government, Politics and Public Policy
Description: Special problem areas of government, politics and public policy concentrating on topics not covered in other departmental course offerings. May not be used for degree credit with POLS 5100. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 4113 International Organization
Description: The last one hundred years have seen the rise of international organizations. This class explores the reasons for this proliferation, as well as the impact of organizations such as the United Nations, North Atlantic Treaty Organization, etc. for the conduct of international relations. May not be used for degree credit with POLS 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4223 Social Movements
Prerequisites: POLS 1113.
Description: A study of the origins, activities, and impact of political and social movements. Students examine these theories and concepts by learning about several contemporary movements from other countries and the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4333 Improving Democracy (S)
Description: This course encourages students to think critically and creatively about challenges facing political institutions in democratic countries, such as the United States and/or abroad, and the prospects for more robust democracy in the future. Topics may include the foundational principles of democracy, new research on threats to democracy, prominent democratic reform proposals, and evidence of their merits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 4353 Administrative Law
Description: Legal powers, limits, and procedures of administrative agencies with emphasis on federal and state administrative procedure acts. May not be used for degree credit with POLS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4363 Environmental Law And Policy
Description: Statutory law, case law, and administrative practices relating to regulation of the environment including environmental impact statements, pollution, public lands, and preservation law. May not be used for degree credit with POLS 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4403 Urban Politics and Management
Description: Problems of governing and managing American metropolitan areas. May not be used for degree credit with POLS 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4413 Government Budgeting
Description: The politics, planning and administration of government budgets. May not be used for degree credit with POLS 5320.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4453 Public Personnel Administration
Description: Problems, processes, and procedures of public personnel administration. May not be used for degree credit with POLS 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4553 American Political Thought
Description: A survey of the major developments in American political thought from the Colonial period to the present, followed by a topical analysis of important recent theoretical developments in political science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4573 Democratic Theory
Description: Investigates the origins, development, and continuing challenges of theories of democratic government, with particular emphasis on the American political tradition. Topics include citizenship, accountability, voting and elections, federalism, and institutional design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4593 Natural Resources and Environmental Policy
Description: Current issues in the law, politics and administration of energy, land, water, mineral and other natural resources policy with particular emphasis on relations to environmental policies and law. May not be used for degree credit with POLS 5620.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4623 Oklahoma Politics (S)
Prerequisites: POLS 1113.
Description: Introduction to Oklahoma Politics. Topics include the evolution of Oklahoma political institutions; the struggle to shape the Oklahoma political culture with special attention to the role of race and woman suffrage; political issues; the structure of Oklahoma political institutions at the state and local levels; and elections.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science
General Education and other Course Attributes: Society & Human Behavior

POLS 4653 Contemporary Political Thought
Description: An analysis of 19th and 20th century political ideas, with emphasis on the rise and fall of ideologies along side controversies over relativism, positivism, pragmatism, and resurgent religious faiths.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4670 Advanced Topics in Political Theory
Description: In-depth examination of critical topics and issues in classic, modern, or American political theory. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4693 Gender and Politics
Description: Changing role of women in government and politics. Voting behavior, public opinion, women in government, and the women's movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4903 Senior Capstone Seminar
Prerequisites: Political Science major with Junior or Senior standing and completion of POLS 3103 with a grade of "C" or better.
Description: This class is intended to be the culmination of a student's undergraduate study of Political Science, emphasizing skills essential to students' future success. Students will read and discuss advanced readings in the field of political science and complete a significant empirical research project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4963 U.S. Constitution: Civil Rights and Civil Liberties
Prerequisites: POLS 2023 or POLS 3983 recommended.
Description: Development of principles of constitutional law by the Supreme Court concerning individual and group rights, with particular emphasis on equal protection of the laws concepts in matters of race, gender, wealth, citizenship, legislative reapportionment and voting rights, government employment and affirmative action programs. Legal research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4973 U.S. Constitution: Separation of Powers
Prerequisites: POLS 2023 or POLS 3983 recommended.
Description: This course will cover the constitutional law governing the structure of the United States government, including such subjects as the power of the federal government, the separation of powers within the federal government, and the relationship between the federal government and the states (including substantive and due process rights under the Fourteenth Amendment).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4980 Advanced Topics in Public Law
Prerequisites: POLS 2023 and (POLS 3983 or POLS 3993) or consent of instructor.
Description: In-depth examination of critical topics and issues in Public Law. May be repeated with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Political Science

POLS 4990 Independent Study
Description: Application of major relevant theoretical perspectives to selected case studies of political problems and issue areas. Theories and attendant case studies selected by visiting faculty members. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science

POLS 4993 Political Science Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in political science.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Political Science
General Education and other Course Attributes: Honors Credit

POLS 5000 Thesis
Description: Thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5013 Quantitative Methods
Prerequisites: POLS 5103.
Description: Required of all graduate students. Fundamental methodological issues in the scientific study of politics. Logic of science, principles of research design and computer data manipulation and analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5020 Creative Component
Description: Individually supervised research. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5023 Foundation of Political Science
Description: Overview of the foundational works, theories and approaches that define the discipline of political science and serve as bridges across its subfields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5030 Internship in Public Administration and Government
Description: Individually supervised internships in administrative and governmental career areas. Paper required. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5040 Readings in Politics, Public Policy or Public Administration
Prerequisites: Consent of supervising professor.
Description: Readings in the student's major area of study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5100 Directed Study
Description: Directed study for master's level students. May not be used for degree credit with POLS 4100. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5103 Research Design
Prerequisites: Graduate standing.
Description: Overview of research design, including conceptualization and operationalization, literature review, deductive and inductive theorizing, hypothesis testing, quantitative and qualitative data collection and analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5113 Seminar in Public Program Evaluation
Description: Methodology of evaluation research in public programs. Emphasis will be placed on designing and interpreting evaluative studies rather than the mastery of particular mathematical, statistical or computer skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5133 Politics and Political Economy in the European Union
Description: The institutions and policy-making process of the European Union (EU) and the theoretical traditions in the study of European integration. The institutional form of the EU and the type of European policy that is emerging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5143 Social and Political Perspectives in Europe
Description: Examination of the current and historical social, cultural and political landscapes of European societies. Material related to identity politics, citizenship, democratization and collective memory feature regularly in the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5153 American Foreign Policy
Description: An introduction to the history of America's foreign policy (with an emphasis on foreign relations since WWII), the dominant themes and goals of American foreign policy throughout time, contemporary issues that face the United States, and how foreign policy is made and enforced. May not be used for degree credit with POLS 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5163 International Organization
Description: The last one hundred years have seen the rise of international organizations. This class explores the reasons for this proliferation, as well as the impact of organizations such as the United Nations, North Atlantic Treaty Organization, etc. for the conduct of international relations. May not be used for degree credit with POLS 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5203 ProSeminar in International Relations
Description: A general survey intended to introduce students to major theoretical paradigms, applications, and debates in the field of international relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5210 Topics Seminar in International Relations
Description: In-depth examination of critical topics and issues in International Relations. May be repeated up to 6 hours with different topics. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours. May not be used for degree credit with POLS 4010.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5213 Seminar in the International Political Economy
Prerequisites: Graduate standing.
Description: Research on the mechanics and theories of interaction between economic and political phenomena. Same course as INTL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5223 Security Analysis and Briefing
Description: The purpose of this course is to provide students with the basic tools used by intelligence analysis. In the course, we will discuss the psychology of intelligence, how to nurture analytical creativity, methods of intelligence analysis, and ways that analysts present their findings to the consumer. We will also engage in several exercises involving both hypothetical and real-world problems that will allow you to develop your critical thinking skills. Finally, we will create an intelligence product that brings together all the skills learned in the course. May not be used for degree credit with POLS 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5253 Conflict Management and Peacebuilding
Description: An introduction to the tactics, strategies, and tools of conflict management. Student will engage with current research in this field, with a focus on understanding of what works - and what does not - in resolving civil wars and communal violence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5273 Diplomacy
Description: Overview of the theoretical and practical dimensions of diplomacy. This class explores the history of diplomacy, its place within the study of international relations, the rise of diplomatic norms, the evolution of diplomacy, and the fragility and art of negotiation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5313 Public Management
Description: Introduction to the general principles of management as they are applied in the public sector. Systems theory, organization design, and techniques of supervision.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5320 Seminar in Public Budgeting and Finance
Description: Major processes and practices involved in governmental budgeting in the United States at national, state and local level. May not be used for degree credit with POLS 4413. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5323 Urban Politics and Management
Description: Introduction to the concepts, processes and techniques of managing urban political systems to include problems of leadership, decision-making, general management and group behavior. May not be used for degree credit with POLS 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5333 Seminar in Public Personnel Administration
Description: Current practices, problems and issues in public sector personnel administration, including merit system, civil service reform collective bargaining, and equal opportunity and affirmative action. May not be used for degree credit with POLS 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5353 Seminar in Design, Structure and Processes of Public Organizations
Description: Administration in the public sector, stressing traditional and emerging organization structures. Awareness of administrative processes and environment that include program design, implementation, and administrative accountability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5363 Public Sector Dispute Resolution
Prerequisites: Senior or graduate standing.
Description: Labor relations and employment issues in the public sector, and the various methods for resolving government personnel conflicts without resort to violence or litigation. Focus on labor law, employment law and Alternative Dispute Resolution as they apply to government employment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5393 Politics of Disaster
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5403 ProSeminar in Comparative Politics
Prerequisites: Graduate standing and 5303 or consent of instructor.
Description: Situates disaster phases in the political context at the local, national, and international levels. Examines research on specific events and their interactive effects between the political system and various phases of disaster.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5410 Topics Seminar in Comparative Politics
Description: In-depth examination of critical topics and issues in Comparative Politics. May be repeated up to 6 hours with different topics. May not be used for degree credit with POLS 4020. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5510 Seminar in Political Behavior
Description: Examination of contemporary theories of political behavior with emphasis on empirical studies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 3-18 Other: 3-18
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5513 Seminar in Political Psychology
Description: Examination of psychological theories as they pertain to political behavior, including attitude change, political cognition, public opinion and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5613 Public Policy Analysis
Description: Analytical methods for evaluating public policies and examination of the public processes including policy design, implementation and evaluation. May not be used for degree credit with POLS 3493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5620 Seminar in Natural Resource Policy, Law and Administration
Description: Analysis of the legal and public policy aspects of environmental regulation, including special emphasis on one of three components: environmental law, administrative law, and national resource law and policy. May not be used for degree credit with POLS 4593. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5633 Practical Environmental Compliance
Description: Environmental decision-making, reading and understanding environmental statutes and regulations, and effectively dealing with the EPA. Environmental permitting and enforcement, policies and procedures. Review of hazardous waste regulations with emphasis on ground water problems. May not be used for degree credit with POLS 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5643 Regulatory Risk Analysis
Description: Risk-based decision making, government's risk analysis paradigm, risk analysis policy, and social aspects of risk assessment. Review of the RCRA corrective action, CERCLA (Superfund) remedial action, and NEPA environmental impact study programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5673 Understanding and Responding to Terrorism
Description: Exploration of the experience of non-state terrorism in the U.S. and Western European democracies in the late 20th century. Understanding terrorism as a political, social, and historical phenomenon; the current and future threat of terrorism, both foreign and domestic; governmental choices in responding to terrorism in democratic societies and; U.S. anti-terrorism policies and considerations that emergency responders face in preparing for and responding to terrorist incidents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5703 ProSeminar in American Politics
Description: Overview of a wide range of classic works in American institutions and Political Behavior. It examines not only the classic works in each area of these subfields, but a sampling of current work being done in the field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5710 Topics Seminar in American Politics
Description: In-depth examination of critical topics and issues in American Politics. May be repeated up to 6 hours with different topics. May not be used for degree credit with POLS 4000. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5713 Seminar in Public Law
Description: Literature of public law in the United States. Overview of the approaches that shape the theoretical and empirical contours of the public law field and contribute to multidisciplinary law and social science studies. May not be used for degree credit with POLS 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5720 Topics in Political Science
Description: In-depth examination of critical topics and issues in Political Science. May be repeated up to 6 hours with different topics. Offered for fixed credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5743 Seminar in Political Communication
Description: Examination of recent theories within politics and the media, including effects of media on opinion, role of media as a political institution and the role of media during elections.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 5810 Seminar in Women and Politics
Prerequisites: Graduate standing.
Description: Research on a variety of topics concerning women and politics, including women's movements, women and elections, and public opinion. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 5943 Complex Emergencies
Prerequisites: Graduate Standing.
Description: This course examines complex emergencies from an emergency management perspective. We will look at the collapse of governance, the causes of armed conflict, food insecurity, infectious disease, natural disasters, and so on and examine specific cases in detail. Furthermore, we will look at how the international community responds to these crises, and which agencies are involved in relief efforts. We will apply the traditional four phases of disaster management these situations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

POLS 6000 Doctoral Dissertation Research
Prerequisites: Consent of major professor.
Description: Research for PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 60 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Political Science

POLS 6013 Qualitative Methods
Prerequisites: POLS 5103.
Description: Qualitative methods for collecting and analyzing data from the social sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Political Science

Undergraduate Programs

- Political Science, BA (p. 1794)
- Political Science, BS (p. 1797)
- Political Science: Campaigns and Lobbying, BS (p. 1800)
- Political Science: Global Politics, BA (p. 1803)
- Political Science: Global Politics, BS (p. 1806)
- Political Science: Practical Politics - Campaigning, Lobbying and Policymaking, BA (p. 1809)
- Political Science: Pre-Law, BA (p. 1812)
- Political Science: Pre-Law, BS (p. 1815)
- Political Science: Public Policy, BA (p. 1818)
- Political Science: Public Policy, BS (p. 1821)

Graduate Programs

The Department of Political Science offers a Master of Arts degree in political science.

Candidates for the Master of Arts degree in political science complete a foundation of 15 hours of study and devote their remaining hours to specialization in two of the following areas: American politics, comparative politics and international relations, with further specialization within these areas also possible. The plan is designed to prepare professional political scientists for careers in research and teaching, as well as administrative and policy positions in local, state or national government and international affairs.

For more information, go to our website polsci.okstate.edu (https://polsci.okstate.edu).

Admission Requirements for Master's Degree Programs

Any student having a bachelor's degree with an overall 3.00 grade-point average (on a 4.00 scale) may be admitted as a student in full standing. Those with less than an overall 3.00 grade-point average are considered for admission on a probationary basis. All graduate students in the MA program would benefit from completion of an undergraduate statistics class. A GRE exam score is required for the MA program.

Degree Requirements for the MA in Political Science

In addition to the general requirements of the Graduate College, requirements for the Master of Arts degree in political science are listed below.

1. A minimum of 33 credit hours in political science or closely related courses. These include:

Code	Title	Hours
Research Methods and Foundations of Political Science		
POLS 5103	Research Design	3
POLS 5013	Quantitative Methods	3
Proseminars		
POLS 5703	ProSeminar in American Politics	3
POLS 5403	ProSeminar in Comparative Politics	3
POLS 5203	ProSeminar in International Relations	3
Electives		
Select at least six hours in two of the following subfields:		12
American Politics		
Comparative Politics		
International Relations		
Select six hour thesis		6

   A minimum of 21 hours of political science graduate seminars (seminars numbered 5000 or above) is required. The student must successfully defend the thesis orally before the faculty committee.
2. Minimum 3.00 grade-point average, with only one grade of "C" allowed.

Minors

- Campaigns and Lobbying (CAML), Minor (p. 1789)
- Intelligence and Security Analysis (INSA), Minor (p. 1790)
- Law and Legal Studies (LLS), Minor (p. 1791)
- Political Science (POLS), Minor (p. 1792)

Faculty

Howard Sanborn, PhD—Professor and Department Head
Professors: Seth McKee, PhD; Jeanette Mendez, PhD; Eve Ringsmuth, PhD
Associate Professors: Danny M. Adkison, EdD; Joshua Jansa, PhD; Jason Kirksey, PhD; Stephen Nemeth, PhD; Peter Rudloff, PhD; Erica Townsend-Bell, PhD
Teaching Associate Professors: Holley Hansen, PhD
Assistant Professors: Brooke Coe, PhD; Ryan DeTamble, PhD; Stephen Graves, PhD; Cole Harvey, PhD; Joshua Landry, PhD; Christine C. Bird, PhD, JD
Emeritus Professors: Anthony E. Brown, PhD; Robert Darcy, PhD (Regents Professor); James A. Davis, PhD; Robert E. England, PhD; William J. Focht, PhD; Rebekah Herrick, PhD; Joel M. Jenswold, PhD (emeritus); James J. Lawler, PhD, JD; Robert L. Spurrier, Jr., PhD

Campaigns and Lobbying (CAML), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Vincent Burke, 201 MUR, 405-744-5569

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
POLS 3443	Pol Campaigns And Candidacy	3
POLS 3513	Public Opinion and Polling	3
POLS 3533	Lobbying and the Power of Organized Interests	3
Select 9 hours of the following:		9
MC 4753	Media and Elections	
POLS 2313	Social Justice Politics (D)	
POLS 2423	Voting and Elections	
POLS 3100	Political Science Internship	
POLS 3353	Political Parties	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3523	Money, Media And Politics	
POLS 3613	State and Local Government	
POLS 3953	Minorities in the American Political System (DS)	
POLS 4223	Social Movements	
POLS 4333	Improving Democracy (S)	
POLS 4403	Urban Politics and Management	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
SC 3443	Social Media Playbook	
SC 4013	Media and Markets	
SC 4843	Strategic Communication Campaigns	
SPCH 3733	Elements of Persuasion (S)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Intelligence and Security Analysis (INSA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Vincent Burke, 201 MUR, 405-744-5569

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (IS)	
POLS 4013	American Foreign Policy	3
POLS 4023	Security Analysis and Briefing	3
Select 9 hours of Option A (Approaches) & B (Topics), at least one course in each Option		9
Option A (Approaches):		
CS 1103	Computer Programming (A)	
ECON 4213	Econometric Methods	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 3333	Spatial Analysis (A)	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4273	Land Use Science	
GEOG 4323	Mapping in Modern Society	
GEOG 4333	Remote Sensing	
POLS 3103	Introduction to Political Inquiry	
Option B (Topics):		
AERO 4103	National Security, Leadership Responsibilities and Commissioning Preparation I	
AERO 4203	National Security, Leadership Responsibilities and Commissioning Preparation II	
GEOG 3133	Political Geography (IS)	
HIST 4353	American Military History (H)	
MC 3113	Introduction to Media Effects	
MC 4153	International Mass Communication	
POLS 3033	International Law	
POLS 3493	Public Policy	
POLS 3893	Terrorism & Counterterrorism	
POLS 4000	Advanced Topics in American Politics	
POLS 4010	Advanced Topics in International Relations	
POLS 4043	Global Political Economy	
Total Hours		**18**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Law and Legal Studies (LLS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Vincent Burke, 201 MUR, 405-744-5569

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
POLS 2023	The Individual And The Law	3
or HONR 2013	Honors Law and Legal Institutions (S)	
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
Select 9 hours of the following:		9
AGEC 3713	Agricultural Law	
ENGR 4103	Impact of Law on Engineering Practice	
ENGR 4133	Environmental Regulation for Technical Professionals (S)	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3963	State Courts and the Bar	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
POLS 4980	Advanced Topics in Public Law	
PSYC 4143	Psychology and Law	
SOC 4313	Sociology of Law	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Political Science (POLS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Minor Requirements		
Select 15 upper-division hours to include three fields of political science (public law, American politics, public administration, political theory, comparative politics and international relations) [1]		15
American Politics		
POLS 3353	Political Parties	
POLS 3423	Voting and Elections	
POLS 3443	Pol Campaigns And Candidacy	
POLS 3453	U.S. Congress	
POLS 3483	The American Presidency	
POLS 3513	Public Opinion and Polling	
POLS 3523	Money, Media And Politics	
POLS 3533	Lobbying: the Art of Influence and Manipulation	
POLS 3683	Politics in Contemporary Film	
POLS 3953	Minorities in the American Political System (DS)	
POLS 3973	Race, Politics and Sports (D)	
POLS 4000	Advanced Topics in American Politics	
POLS 4333	Improving Democracy: How to Reform Government by the People (S)	
POLS 4623	Oklahoma Politics (S)	
POLS 4693	Gender and Politics	
Comparative Government		
POLS 3003	The Soviet Union: History, Society and Culture(IS)	
POLS 3053	Introduction to Central Asia Studies (IS)	
POLS 3123	Russian & Eurasian Politics (I)	
POLS 3143	European Politics (I)	
POLS 3163	African Politics (I)	
POLS 3193	Latin American Politics (IS)	
POLS 3223	Asian Politics	
POLS 3313	Middle Eastern Politics	
POLS 4020	Advanced Topics in Comparative Politics	
POLS 4223	Social Movements	
International Relations		
POLS 3033	International Law	
POLS 3893	Terrorism & Counterterrorism	
POLS 4010	Advanced Topics in International Relations	
POLS 4013	American Foreign Policy	
POLS 4023	Security Analysis and Briefing	
POLS 4033	Civil Wars (I)	
POLS 4043	Global Political Economy	
POLS 4053	War And World Politics (I)	
POLS 4113	International Organization	
Public Law		
POLS 3963	State Courts and the Bar	
POLS 3983	Courts and Judicial Process (S)	
POLS 3993	Legal Research And Analysis	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
POLS 4980	Advanced Topics in Public Law	
Public Policy/Public Administration		
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4100	Problems of Government, Politics and Public Policy	
POLS 4403	Urban Politics and Management	
POLS 4413	Government Budgeting	
POLS 4453	Public Personnel Administration	
POLS 4593	Natural Resources and Environmental Policy	
Political Theory and Methodology		
POLS 3103	Introduction to Political Inquiry	
POLS 3663	Introduction to Political Thought	
POLS 4553	American Political Thought	
POLS 4573	Democratic Theory	
POLS 4653	Contemporary Political Thought	
POLS 4670	Advanced Topics in Political Theory	
POLS 4903	Senior Capstone Seminar	
Total Hours		**15**

1 At least 3 of the hours must be taken in a field other than American politics, public law, and public administration.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have

been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Political Science, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 4903	Senior Capstone Seminar	3
At least 18 hours of upper-division (3000- or 4000-level) POLS (excluding core requirements listed above)		18
Upper-division courses to complete the required 39 may be POLS or any other 3000- or 4000-level courses		9
Hours Subtotal		**39**
Electives		
Select 19 hours		19
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 7 additional upper-division hour		
15 hours in one foreign language recommended for students focusing on International Relations		
Hours Subtotal		**19**
Total Hours		**120**

Upper-Division POLS Courses

Code	Title	Hours
POLS 3003	The Soviet Union: History, Society and Culture(GS)	3
POLS 3033	International Law	3
POLS 3053	Introduction to Central Asia Studies (IS)	3
POLS 3090	Teaching Practicum	1-6
POLS 3100	Political Science Internship	1-6
POLS 3101	Oklahoma Intercollegiate Legislature	1
POLS 3123	Russian & Eurasian Politics (G)	3
POLS 3143	European Politics (G)	3
POLS 3163	African Politics (G)	3
POLS 3193	Latin American Politics (GS)	3
POLS 3223	Asian Politics	3
POLS 3313	Middle Eastern Politics	3
POLS 3353	Political Parties	3
POLS 3423	Voting and Elections	3
POLS 3443	Pol Campaigns And Candidacy	3
POLS 3453	U.S. Congress	3
POLS 3483	The American Presidency	3
POLS 3493	Public Policy	3

POLS 3513	Public Opinion and Polling	3
POLS 3523	Money, Media And Politics	3
POLS 3533	Lobbying and the Power of Organized Interests	3
POLS 3613	State and Local Government	3
POLS 3663	Introduction to Political Thought	3
POLS 3683	Politics in Contemporary Film	3
POLS 3893	Terrorism & Counterterrorism	3
POLS 3953	Minorities in the American Political System (DS)	3
POLS 3963	State Courts and the Bar	3
POLS 3973	Race, Politics and Sports (D)	3
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
POLS 4000	Advanced Topics in American Politics	3
POLS 4010	Advanced Topics in International Relations	3
POLS 4013	American Foreign Policy	3
POLS 4020	Advanced Topics in Comparative Politics	3
POLS 4023	Intelligence and Security Analysis	3
POLS 4033	Civil Wars (G)	3
POLS 4043	Global Political Economy	3
POLS 4053	War And World Politics (G)	3
POLS 4100	Problems of Government, Politics and Public Policy	1-6
POLS 4113	International Organization	3
POLS 4223	Social Movements	3
POLS 4333	Improving Democracy (S)	3
POLS 4353	Administrative Law	3
POLS 4363	Environmental Law And Policy	3
POLS 4403	Urban Politics and Management	3
POLS 4413	Government Budgeting	3
POLS 4453	Public Personnel Administration	3
POLS 4553	American Political Thought	3
POLS 4573	Democratic Theory	3
POLS 4593	Natural Resources and Environmental Policy	3
POLS 4623	Oklahoma Politics (S)	3
POLS 4653	Contemporary Political Thought	3
POLS 4693	Gender and Politics	3
POLS 4670	Advanced Topics in Political Theory	3
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	3
POLS 4973	U.S. Constitution: Separation of Powers	3
POLS 4980	Advanced Topics in Public Law	3
POLS 4990	Independent Study	1-3
POLS 4993	Political Science Honors Thesis	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or STAT 2013	or Elementary Statistics (Q)	
or STAT 2053	or Elementary Statistics for the Social Sciences (Q)	
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	or Introduction to Comparative Politics (GS)	
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 4903	Senior Capstone Seminar	3
At least 18 hours of upper-division (3000- or 4000-level) POLS (excluding core requirements listed above)		18
Upper-division courses to complete the required 39 may be POLS or any other 3000- or 4000-level courses [1]		9
Hours Subtotal		**39**
Electives		
Select 28 hours [1]		28
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department. (see note 2.c.), and 7 additional upper-division hour		
15 hours in one foreign language recommended for students focusing on International Relations		
Hours Subtotal		**28**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be used for these areas.

Upper-Division POLS Courses

Code	Title	Hours
POLS 3003	The Soviet Union: History, Society and Culture(GS)	3
POLS 3033	International Law	3
POLS 3053	Introduction to Central Asia Studies (IS)	3
POLS 3090	Teaching Practicum	1-6
POLS 3100	Political Science Internship	1-6
POLS 3101	Oklahoma Intercollegiate Legislature	1
POLS 3123	Russian & Eurasian Politics (G)	3
POLS 3143	European Politics (G)	3
POLS 3163	African Politics (G)	3
POLS 3193	Latin American Politics (GS)	3
POLS 3223	Asian Politics	3
POLS 3313	Middle Eastern Politics	3
POLS 3353	Political Parties	3
POLS 3443	Pol Campaigns And Candidacy	3

POLS 3453	U.S. Congress	3
POLS 3483	The American Presidency	3
POLS 3493	Public Policy	3
POLS 3513	Public Opinion and Polling	3
POLS 3523	Money, Media And Politics	3
POLS 3533	Lobbying and the Power of Organized Interests	3
POLS 3613	State and Local Government	3
POLS 3663	Introduction to Political Thought	3
POLS 3683	Politics in Contemporary Film	3
POLS 3893	Terrorism & Counterterrorism	3
POLS 3953	Minorities in the American Political System (DS)	3
POLS 3963	State Courts and the Bar	3
POLS 3973	Race, Politics and Sports (D)	3
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
POLS 4000	Advanced Topics in American Politics	3
POLS 4010	Advanced Topics in International Relations	3
POLS 4013	American Foreign Policy	3
POLS 4020	Advanced Topics in Comparative Politics	3
POLS 4023	Intelligence and Security Analysis	3
POLS 4033	Civil Wars (G)	3
POLS 4043	Global Political Economy	3
POLS 4053	War And World Politics (G)	3
POLS 4100	Problems of Government, Politics and Public Policy	1-6
POLS 4113	International Organization	3
POLS 4223	Social Movements	3
POLS 4333	Improving Democracy (S)	3
POLS 4353	Administrative Law	3
POLS 4363	Environmental Law And Policy	3
POLS 4403	Urban Politics and Management	3
POLS 4413	Government Budgeting	3
POLS 4453	Public Personnel Administration	3
POLS 4553	American Political Thought	3
POLS 4573	Democratic Theory	3
POLS 4593	Natural Resources and Environmental Policy	3
POLS 4623	Oklahoma Politics (S)	3
POLS 4653	Contemporary Political Thought	3
POLS 4670	Advanced Topics in Political Theory	3
POLS 4693	Gender and Politics	3
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	3
POLS 4973	U.S. Constitution: Separation of Powers	3
POLS 4980	Advanced Topics in Public Law	3
POLS 4990	Independent Study	1-3
POLS 4993	Political Science Honors Thesis	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1493 or MATH 1513 or STAT 2013 or STAT 2053	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Spring		
POLS 2013 or POLS 2113	Introduction to International Relations (S) or Introduction to Comparative Politics (GS)	3
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
General Education courses		12
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Campaigns and Lobbying, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Understanding Humanities-Human Heritage & Cultures (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3443	Pol Campaigns And Candidacy	3
POLS 3513	Public Opinion and Polling	3
POLS 3533	Lobbying and the Power of Organized Interests	3
POLS 4903	Senior Capstone Seminar	3
12 hours from:		12
POLS 2313	Social Justice Politics (D)	
POLS 2423	Voting and Elections	
POLS 3100	Political Science Internship	
POLS 3353	Political Parties	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3523	Money, Media And Politics	
POLS 3613	State and Local Government	
POLS 3953	Minorities in the American Political System (DS)	
POLS 4223	Social Movements	
POLS 4333	Improving Democracy (S)	
POLS 4403	Urban Politics and Management (Title changed to Rural and Urban Politics)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
9 hours upper-division courses from POLS or any other 3000- or 4000-level courses.		9
Hours Subtotal		**42**
Electives		
Select 25 hours.		25
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 7 additional upper-division hours.		
Hours Subtotal		**25**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.

- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1493 or MATH 1513 or STAT 2013 or STAT 2053	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Spring		
POLS 2013 or POLS 2113	Introduction to International Relations (S) or Introduction to Comparative Politics (GS)	3
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3

General Education courses		12
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Global Politics, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
9 hours. See note 3.		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
POLS 2113	Introduction to Comparative Politics (GS)	3
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 4043	Global Political Economy	3
POLS 4903	Senior Capstone Seminar	3
Select 12 hours from:		12
POLS 2010	Topics in International Relations (G)	
POLS 2110	Topics in Comparative Politics (G)	
POLS 3033	International Law	
POLS 3053	Introduction to Central Asia Studies (IS)	
POLS 3123	Russian & Eurasian Politics (G)	
POLS 3143	European Politics (G)	
POLS 3163	African Politics (G)	
POLS 3193	Latin American Politics (GS)	
POLS 3223	Asian Politics	
POLS 3313	Middle Eastern Politics	
POLS 3893	Terrorism & Counterterrorism	
POLS 4010	Advanced Topics in International Relations	
POLS 4013	American Foreign Policy	
POLS 4113	International Organization	
POLS 4020	Advanced Topics in Comparative Politics	
POLS 4053	War And World Politics (G)	
Select 9 hours of upper-division courses.		9
Hours Subtotal		**39**
Electives		
Select 19 hours.		19
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 10 additional upper-division hours.		
Hours Subtotal		**19**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
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Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or STAT 2013	or Elementary Statistics (Q)	
or STAT 2053	or Elementary Statistics for the Social Sciences (Q)	
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	or Introduction to Comparative Politics (GS)	
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**

Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Global Politics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
POLS 2113	Introduction to Comparative Politics (GS)	3
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 4043	Global Political Economy	3
POLS 4903	Senior Capstone Seminar	3
Select 12 hours from:		12
POLS 2010	Topics in International Relations (G)	
POLS 2110	Topics in Comparative Politics (G)	
POLS 3033	International Law	
POLS 3053	Introduction to Central Asia Studies (IS)	
POLS 3123	Russian & Eurasian Politics (G)	
POLS 3143	European Politics (G)	
POLS 3163	African Politics (G)	
POLS 3193	Latin American Politics (GS)	
POLS 3223	Asian Politics	
POLS 3313	Middle Eastern Politics	
POLS 3893	Terrorism & Counterterrorism	
POLS 4010	Advanced Topics in International Relations	
POLS 4013	American Foreign Policy	
POLS 4020	Advanced Topics in Comparative Politics	
POLS 4113	International Organization	
POLS 4053	War And World Politics (G)	
Select 9 hours of upper-division courses. [1]		9
Hours Subtotal		**39**
Electives		
Select 28 hours. [1]		28
May need to include 6 hours of a foreign language (see note 3).		
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 10 additional upper-division hours.		
Hours Subtotal		**28**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be used for these areas.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or STAT 2013	or Elementary Statistics (Q)	
or STAT 2053	or Elementary Statistics for the Social Sciences (Q)	
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**
Spring		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	or Introduction to Comparative Politics (GS)	
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
General Education courses		12
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3

College and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Practical Politics - Campaigning, Lobbying and Policymaking, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		*9*
See note 2.a.		
Natural & Mathematical Sciences		*3*
See note 2.b.		
Foreign Language		*9*
See note 3.		
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
Core Requirements		
POLS 2013	Introduction to International Relations (S)	3
POLS 2113	Introduction to Comparative Politics (GS)	3
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3443	Pol Campaigns And Candidacy	3
or POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3493	Public Policy	3
POLS 3513	Public Opinion and Polling	3
POLS 4903	Senior Capstone Seminar	3
9 hours from:		9
POLS 2313	Social Justice Politics (D)	
POLS 2423	Voting and Elections	
POLS 3100	Political Science Internship	
POLS 3353	Political Parties	
POLS 3453	U.S. Congress	
POLS 3493	Public Policy	
POLS 3523	Money, Media And Politics	
POLS 3613	State and Local Government	
POLS 3953	Minorities in the American Political System (DS)	
POLS 4223	Social Movements	
POLS 4333	Improving Democracy (S) (Title changed to Improving Democracy)	
POLS 4403	Urban Politics and Management (Title changed to Rural and Urban Politics)	
POLS 4693	Gender and Politics	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
9 hours of upper-division courses from POLS or any other 3000- or 4000-level course		9
Hours Subtotal		**42**
Electives		
Select 16 hours.		16
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 7 additional upper-division hours.		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or STAT 2013	or Elementary Statistics (Q)	
or STAT 2053	or Elementary Statistics for the Social Sciences (Q)	
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	or Introduction to Comparative Politics (GS)	
General Education courses		13
	Hours	**16**

Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
or PHIL 3003	Symbolic Logic (Q)	
(See note 2.b.)		
Foreign Languages		
(See note 3.)		9
Non-Western Studies		
(See note 2.d.)		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
A minimum of 30 hours POLS (24 hours must be upper-division).		
Requirements:		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2023	The Individual And The Law	3
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
POLS 4353	Administrative Law	3
or POLS 4980	Advanced Topics in Public Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	3
POLS 4973	U.S. Constitution: Separation of Powers	3
POLS 4903	Senior Capstone Seminar	3
9 hours of any upper-division POLS		9
9 hours of upper-division Pre-Law courses from:		9
AGEC 3713	Agricultural Law	
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 4353	Administrative Law	
POLS 4980	Advanced Topics in Public Law	
PSYC 4143	Psychology and Law	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4793	Nonverbal Communication (S)	
Hours Subtotal		**48**
Electives		**10**
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**10**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
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4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

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Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or STAT 2013	or Elementary Statistics (Q)	
or STAT 2053	or Elementary Statistics for the Social Sciences (Q)	
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	or Introduction to Comparative Politics (GS)	
General Education courses		13
	Hours	**16**

Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Pre-Law, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
or PHIL 3003	Symbolic Logic (Q)	
(See note 2.b.)		6
Foreign Languages		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department		
(See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
A minimum of 30 hours POLS (24 hours must be upper-division).		
Requirements (21 hours):		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2023	The Individual And The Law	3
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
POLS 4353	Administrative Law	3
or POLS 4980	Advanced Topics in Public Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	3
POLS 4973	U.S. Constitution: Separation of Powers	3
POLS 4903	Senior Capstone Seminar	3
9 hours of any upper-division POLS [1]		9
9 hours of upper-division Pre-Law courses from: [1]		9
AGEC 3713	Agricultural Law	
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3003	Symbolic Logic (Q)	
PHIL 3413	Ethical Theory (H)	
PHIL 3843	Philosophy of Law (H)	
POLS 4353	Administrative Law	
POLS 4980	Advanced Topics in Public Law	
PSYC 4143	Psychology and Law	
SOC 4313	Sociology of Law	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4793	Nonverbal Communication (S)	
Hours Subtotal		**48**
Electives		
Select 19 hours. [1]		19
May need to include 6 hours upper-division general education outside major department. See note 2.c.		
Hours Subtotal		**19**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law program may be used for these areas.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1493 or MATH 1513 or STAT 2013 or STAT 2053	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
POLS 1113	American Government	3
General Education courses		10
	Hours	**16**

Spring		
POLS 2013 or POLS 2113	Introduction to International Relations (S) or Introduction to Comparative Politics (GS)	3
General Education courses		11
	Hours	**14**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
General Education courses		12
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
College and Elective courses		12
	Hours	**15**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
	Total Hours	**120**

Political Science: Public Policy, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
First Year Seminar		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
9 hours. See note 3.		9
Non-Western Studies		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50 with grade of "C" in each course.		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3493	Public Policy	3
POLS 4903	Senior Capstone Seminar	3
Any Upper Division POLS course		3
Select 12 hours from the following (3 hours must be POLS):		12
AGEC 2313	Case Studies in Agricultural Trade and Development	
AGEC 3703	Issues in Agricultural Policy	
AGEC 4503	Environmental Economics and Resource Development	
AGEC 4703	American Agricultural Policy	
AMIS 4013	American Indian Sovereignty (D)	
AMST 4103	The Death Penalty in America (S)	
ECON 2103	Introduction to Microeconomics (S)	
ECON 2203	Introduction to Macroeconomics	
ECON 3423	Public Finance	
ECON 3903	Economics of the Environment	
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ECON 4913	Urban and Regional Economics	
GEOG 2002	Global Sustainability (N)	
MGMT 3011	Business, Government and Society	
NREM 4043	Natural Resource Administration and Policy	
POLS 2030	Topics in Public Policy & Administration	
POLS 2313	Social Justice Politics (D)	
POLS 3513	Public Opinion and Polling	
POLS 3533	Lobbying and the Power of Organized Interests	
POLS 3613	State and Local Government	
POLS 3893	Terrorism & Counterterrorism	
POLS 4013	American Foreign Policy	
POLS 4043	Global Political Economy	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
POLS 4623	Oklahoma Politics (S)	
SOC 2243	Sociology of Drugs	
SOC 3333	Policing and Society (S)	
SOC 4453	Environmental Inequality (S)	

Upper-division division courses to complete the required 39 may be POLS or any other 3000- or 4000- level courses	9
Hours Subtotal	**39**
Electives	
Select 19 hours	19
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.),, and 1 additional upper-division hour	
Hours Subtotal	**19**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1493 or MATH 1513 or STAT 2013 or STAT 2053	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013 or POLS 2113	Introduction to International Relations (S) or Introduction to Comparative Politics (GS)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Political Science: Public Policy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or SPCH 3733	Elements of Persuasion (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3.		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
POLS 2013	Introduction to International Relations (S)	3
or POLS 2113	Introduction to Comparative Politics (GS)	
POLS 2213	Fundamentals of Political Science	3
POLS 3103	Introduction to Political Inquiry	3
POLS 3493	Public Policy	3
POLS 4903	Senior Capstone Seminar	3
Any upper division POLS course		3
Select 12 hours from the following (3 must be POLS):		12
AGEC 2313	Case Studies in Agricultural Trade and Development	
AGEC 3703	Issues in Agricultural Policy	
AGEC 4503	Environmental Economics and Resource Development	
AGEC 4703	American Agricultural Policy	
AMIS 4013	American Indian Sovereignty (D)	
AMST 4103	The Death Penalty in America (S)	
ECON 2103	Introduction to Microeconomics (S)	
ECON 2203	Introduction to Macroeconomics	
ECON 3423	Public Finance	
ECON 3903	Economics of the Environment	
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ECON 4913	Urban and Regional Economics	
GEOG 2002	Global Sustainability (N)	
MGMT 3011	Business, Government and Society	
NREM 4043	Natural Resource Administration and Policy	
POLS 2030	Topics in Public Policy & Administration	
POLS 2313	Social Justice Politics (D)	
POLS 3513	Public Opinion and Polling	
POLS 3533	Lobbying and the Power of Organized Interests	
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POLS 4013	American Foreign Policy	
POLS 4043	Global Political Economy	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
POLS 4623	Oklahoma Politics (S)	
SOC 2243	Sociology of Drugs	
SOC 3333	Policing and Society (S)	
SOC 4453	Environmental Inequality (S)	

Upper-division courses to complete the required 39 may be POLS or any other 3000- or 4000-level courses	9
Hours Subtotal	**39**
Electives	
Select 28 hours	
May need to include 6 hours of a foreign language (see note 3)	
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 1 additional upper-division hour	
Hours Subtotal	**28**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all POLS courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483 or MATH 1493 or MATH 1513 or STAT 2013 or STAT 2053	Mathematical Functions and Their Uses (Q) or Applications of Modern Mathematics (Q) or College Algebra (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
POLS 1113	American Government	3
General Education courses		8
	Hours	**14**
Spring		
POLS 2013 or POLS 2113	Introduction to International Relations (S) or Introduction to Comparative Politics (GS)	3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
POLS 2213	Fundamentals of Political Science	3
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**15**
Spring		
POLS 3103	Introduction to Political Inquiry	3
1813 Second Semester Foreign Language		3
College and Elective courses		9
	Hours	**15**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
POLS 4903	Senior Capstone Seminar	3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology

The student pursuing a BA or BS in psychology is provided with a background that can be of great value in personal, social, and vocational areas of life. The course of study applies the scientific method to the study of the behavior of an individual and behavior between individuals. The understanding of such material is directly related to a variety of employment opportunities. In addition, students may take advantage of opportunities to work with faculty in research or in teaching to gain additional experience. Such experiences are especially helpful to those students wishing to pursue graduate education in psychology or related fields.

A bachelor's degree in psychology is useful in a wide number of occupations in research, business, education, social services, and industry. The range of positions obtained by graduates covers almost all occupations requiring direct personal contact with other people. Some examples are supervision, training, sales, public relations and interviewing. Also included are positions with city, state and federal agencies, and in nonprofit agencies. Although there is no licensure or certification to teach psychology in schools, it is possible to earn a teaching certificate or license in social studies education with endorsement in psychology while pursuing a major in psychology. Persons interested in such teaching should contact the Office of Professional Education. (See "Professional Education Programs (http://catalog.okstate.edu/education-human-sciences/office-educator-support/)" in the "College of Education and Human Sciences (p. 1972)" section of the Catalog.)

The department also offers courses in speech communication to enhance the student's ability to effectively communicate in the interpersonal, organizational and public contexts. Both conceptual knowledge and practical application are emphasized to prepare students to begin careers in business and industry, or to enter graduate or professional schools.

Courses

PSYC 1111 Succeeding in Psychology
Description: This course will serve as a practical guide to making the most of your time as a psychology major at OSU and preparing for your work life beyond OSU, whether in graduate school or a career. You will learn about: resources that are available within the Psychology Department at OSU to help you succeed, strategies to maximize your competitiveness as a potential graduate student or future employee, and steps to take as you plan for your career after graduation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 1113 Introductory Psychology (S)
Description: Principles, theories, vocabulary and applications of the science of psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2313 Psychology of Adjustment
Prerequisites: PSYC 1113.
Description: This course provides an introductory examination of the applied psychological theory and research concerning mental health and well-being. Subjects include stress and coping, identity, gender, personal growth, communication, interpersonal relationships, psychological disorders and treatment, and career issues. This course was previously taught as Psychology and Human Problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2443 Clinical Child Psychology
Prerequisites: PSYC 1113 with grade of "C" or better.
Description: This course will present information from empirical research, key theories, and concepts that shape the current understanding of developmental psychopathology, and clinical child and adolescent psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2583 Developmental Psychology (S)
Prerequisites: PSYC 1113.
Description: The nature of pertinent studies, causes, and theories of human developmental phenomena across the life span. Course previously offered as PSYC 3583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2593 Psychology of Human Sexuality
Prerequisites: PSYC 1113.
Description: Survey of behavioral, personality and psychophysiological components of human sexuality, with special emphasis on the delineation of facts from sexual myths.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 2743 Social Psychology (S)
Prerequisites: PSYC 1113.
Description: Theories and applications of social cognition, the self, pro-social and aggressive behavior, groups, attitudes and the environment. Course previously offered as PSYC 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 2890 Honors Experience in Psychology
Prerequisites: Honors Program participation and concurrent enrollment in a designated PSYC course.
Description: A supplemental Honors experience in Psychology to partner concurrently with designated Psychology course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 3003 Data Analysis with Observation Oriented Modeling
Prerequisites: PSYC 3214 and 3 hours MATH or STAT designated "A."
Description: Students will learn a suite of nonparametric analysis techniques (Observation Oriented Modeling) that are simple to use, easy to understand, and designed for data collected in the social and life sciences. Measurement, causal modeling, and the history of modern statistical methods of data analysis will also be covered in this course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3013 Psychology of Motivation
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Examines the initiation, persistence and achievement of goal-directed behavior. Theory, research and applications of these concepts are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3033 Psychology of Humor (S)
Prerequisites: PSYC 1113.
Description: The course will examine theoretical perspective on the topic of humor, including cross-cultural and individual a well as the development of humor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3053 Psychology of Art (S)
Prerequisites: PSYC 1113.
Description: The course will examine psychological approaches to the understanding of how art is experienced and produced. The course will examine all forms of art, including visual art, music, sculpture, and other forms of artistic expression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3073 Neurobiological Psychology (N)
Prerequisites: PSYC 1113.
Description: Neural bases of human experience and behavior. Topics include sensation and perception, motivation and emotion, learning and thinking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3113 Comparative Psychology (N)
Prerequisites: PSYC 1113.
Description: Comparative study of behavior characteristics of selected samples of the animal kingdom from protozoa to humans. Topics include the history of comparative psychology, how to design a comparative experiment, and the importance of comparative psychology in our daily lives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3120 Special Topics in Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Special topics in psychology to be determined by faculty. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 3173 Introduction to Cognitive Science (N)
Description: Introduction to the study of human and artificial intelligence. The course will survey contributions to the understanding of intelligence from psychology, neuroscience, computer science, philosophy, and linguistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 3214 Statistical Methods in Psychology
Prerequisites: PSYC 1113, and either MATH 1483 or MATH 1513 or higher, or STAT 2013 or higher, with a grade of "C" or higher in one of the prerequisite math or statistics courses.
Description: Evaluation of research in psychology including scales of measurement and quantitative/statistical procedures for data analysis and inference. Course will cover descriptive statistics and inferential statistics with emphasis on procedures used in the psychological sciences.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 3343 Black Psychology (DS)
Prerequisites: PSYC 1113.
Description: Students will gain an understanding of the psychology of African Americans drawing upon African and American cultures and perspectives. The course will cover the foundations of African American psychology, African philosophy, Africentric psychology, intrapersonal and interpersonal topics such as family and community, peers and friends, racial identity, and select social issues among African Americans such as physical and mental health, education, racism, and employment. Same course as AFAM 3343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity, Society & Human Behavior

PSYC 3413 Social Cognition & Behavior; Mating, Morality, & other Mysteries
Prerequisites: PSYC 1113 and PSYC 2743 and 3 hours MATH or STAT designated "A."
Description: We investigate advanced topics in social psychology dealing with social cognition, perception, and interpersonal behavior (e.g., cooperation, friendship, mating aggression), with special emphasis on cutting-edge theoretical approaches and understanding the processes of critically consuming and generating social psychological research. Previously taught as Psychology of Social Behaviors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3443 Psychopathology (S)
Prerequisites: PSYC 1113.
Description: This course will examine the major psychological disorders, their causes, and how they are treated. The primary focus will be on the description of adult disorders and theories of etiology/treatment. Previously offered as Abnormal Psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 3513 Psychology of Learning
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Behavior change as a function of experience from relatively simple learning processes such as classical and instrumental conditioning to relatively complex processes such as verbal learning and concept identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3713 Psychology of Memory
Prerequisites: PSYC 1113 and three additional hours of psychology and 3 hours MATH or STAT designated "A."
Description: An overview of scientific research on human memory including how memory operates in daily life, how memory changes as we age, why we do not remember much of our early childhood, memory disorders, and eyewitness memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3823 Cognitive Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Cognitive processes. Thinking, problem solving, visual imagery, attention, and memory search. Both theory and application emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3883 Positive Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course focuses on the positive side of human nature and the most effective ways to pursue the good life by examining scientific research centered on the nature of happiness and psychological well-being.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 3890 Advanced Honors Experience in PSYC
Prerequisites: Honors Program participation and concurrent enrollment in a designated PSYC course.
Description: A supplemental Honors experience in Psychology to partner concurrently with designated upper-division PSYC course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology
Prerequisites: PSYC 1113 and PSYC 3214 with a grade of "C" or better, and 3 hours MATH or STAT designated "A."
Description: Examination of fundamentals of the scientific method as applied to research in psychology. Research design, sampling, measurement, analytical, evaluative, and interpretive skills needed to understand the professional research literature. Includes a laboratory component in which students conduct research, use SPSS for data analysis, and write APA style papers.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 3990 Teaching Practicum
Prerequisites: Consent of instructor.
Description: For outstanding students. Students will work with a faculty instructor and assist in many aspects of teaching including guest lecturing, offering study sessions, office hours, among other duties as determined by instructor. May involve meetings and written papers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 4013 Introduction to Pediatric Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Pediatric psychology is a dynamic subspecialty that involves promotion of children's health and delivery of psychological services to children with both acute and chronic illnesses. This course provides an introduction to the field of pediatric psychology, including historical perspectives, theoretical models and underpinnings, roles of the pediatric psychologist in a number of hospital and clinic settings, and psychosocial interventions with a variety of childhood chronic illnesses and diseases. In addition, this course covers the empirical knowledge base for public health, injury prevention, pain management, consultation and liaison work, as well as general assessment and intervention in medical contexts for children with a variety of health-related issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4023 Evolutionary Psychology (N)
Prerequisites: PSYC 1113
Description: Evolutionary psychology is the scientific study of human nature that focuses on understanding the psychological adaptations that evolved to solve ancestral survival and reproductive problems. The course begins with a brief historical review of key themes in psychology and evolutionary biology. The adaptive problems of survival, long-term mating, sexuality, parenting, kinship, cooperation, aggression and warfare, conflict between the sexes, status, prestige, and social dominance are covered in the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Natural Science Reasoning

PSYC 4073 Principles of Neuroscience
Prerequisites: BIOL 1114 or (BIOL 1113 or BIOL 1111) and either (CHEM 1215, CHEM 1314, or CHEM 1414).
Description: Neuroscience is an interdisciplinary field focused on understanding the structure and function of the brain, spinal cord, and peripheral nervous system. This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as BIOL 4073. May not be used for degree credit with BIOL 5073 or PSYC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4123 Psychology of Women (DS)
Prerequisites: PSYC 1113.
Description: This course examines the biological, psychological and sociocultural factors influencing behavior, cognition, and affect in the lives of women.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity, Society & Human Behavior

PSYC 4143 Psychology and Law
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: The new psycho-legal literature reviewed with emphasis on the psychological basis of voir dire, eyewitness behavior, courtroom persuasion, jury deliberation and mental health issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4153 Psychology and Mass Media
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: Examination of the role of mass media in shaping public perceptions of mental illness and mental health treatment with a focus on the role of popular films. Students will learn to critically evaluate the veracity of film portrayals as well as common themes involving mental health. Also, aspects of social and cognitive psychology in film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4163 Psychology of Prejudice and Discrimination (D)
Prerequisites: PSYC 1113.
Description: Explores the nature and causes of stereotyping, discrimination and minority experience, mainly from a social psychological perspective. Examines how these issues impact social group members, especially members of low status or minority groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Diversity

PSYC 4183 Issues in Clinical Psychology
Prerequisites: PSYC 1113 and three additional hours of psychology and 3 hours MATH or STAT designated "A."
Description: An in-depth look at clinical psychology including the role of science in clinical psychology, specialty areas in the discipline, and major therapy approaches. Also examines clinical psychology as a profession and applying to graduate school in clinical psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4213 Conflict Resolution (S)
Prerequisites: PSYC 1113.
Description: Interpersonal conflict studied from psychological perspectives. Types and uses of conflict, and conditions for constructive dispute settlement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4223 Decision Making and Problem Solving
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: An examination of the research literature on individual decision-making and problem solving with dual emphases on theory and application. A thorough prior understanding of the human cognitive system is desirable, but not required. May not be used for degree credit with PSYC 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4243 Psychology of Aging
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: This course aims to increase your understanding of the human aging process through traditional classroom experiences focusing on knowledge of the physical, cognitive, and social changes that are part of late adulthood. Additionally, students will learn more actively by working with older adults who are living in our community. Our overall goal is to enhance our understanding of the psychology of aging by integrating our classroom-acquired knowledge with our community service experiences. May not be used for degree credit with PSYC 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4263 Affective Neuroscience
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course will examine biological mechanisms underlying emotions. Topics include basic theories of emotion, the neural circuits associated with emotion generation, as well as related cognitive processes. May not be used for degree credit with PSYC 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4283 Health Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course will explore the interplay between psychology and health, including the psychological impact of illness, psychological contributions to illness and wellness, health behaviors, and psychological interventions to improve health and healthcare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4293 Forensic Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: This course provides an introduction to forensic psychology, the relationship between psychology and law. The course examines five subspecialties of forensic psychology including associated careers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4333 Personality
Prerequisites: PSYC 1113 or consent of instructor and 3 hours MATH or STAT designated "A."
Description: Basic assumptions, research, and clinical issues relating to the major personality theories. May not be used for degree credit with PSYC 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4343 Language Development (S)
Prerequisites: PSYC 1113 or consent of instructor.
Description: Current theory and research on the development of language throughout the lifespan. The nature of language, first language acquisition, second and third language acquisition, brain and language, language processing, social aspects of language, gender differences in language use and language processing, language use by older adults, language use directed at older adults, language disorders, and language use in special populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4353 History of the Human Soul
Prerequisites: 3 hours MATH or STAT designated "A."
Description: Psychology literally means the study of the soul, and in this course students will explore the history of the human soul from antiquity to modern times. Students will read selections from various literary figures, scholars, and philosophers, such as Oscar Wilde, Victor Frankl, Plato, Aristotle, and St. Thomas Aquinas. Modern psychological theories will then be explored and discussed in light of these works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4483 Psychology of Parent Behavior (S)
Prerequisites: PSYC 1113.
Description: Historical and contemporary conceptions of parent-child relationship and approaches to communication and discipline; special problems in parenting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

PSYC 4493 History of Psychology
Prerequisites: PSYC 1113 and 3 hours MATH or STAT designated "A."
Description: History of psychology as an aspect of European intellectual history. Psychological thought from early philosophical roots to modern conceptions of psychology as a science. Topics include the contribution of under-represented groups to psychology and the role of non-European contributions to psychological thought and the solution to practical problems. May not be used for degree credit with PSYC 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4633 Psychology of Sport and Human Performance
Prerequisites: PSYC 1113 and 3 hours hours MATH or STAT designated "A."
Description: This course will explore psychological issues related to sport and human performance, including performance enhancement, stress and arousal, motivation, leadership, and coping with injury and retirement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4770 Undergraduate Senior Thesis
Prerequisites: PSYC 1113, PSYC 3214, PSYC 3914, junior or senior standing and consent of instructor.
Description: The thesis is an empirical study that results in a manuscript conforming to APA style. It should contain a literature review that informs specific hypothesis, as well as method, results, discussion, and reference sections. The results section of the manuscript is typically based on data collected by the student, but it is also acceptable for it to stem from an original analysis of an archival dataset. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 4813 Psychological Testing
Prerequisites: PSYC 1113 and PSYC 3214 and 3 hours MATH or STAT designated "A."
Description: Quantitative aspects of measurement and testing, with emphasis on scaling, standardization, reliability and validity. Basic principles of construction and the ethics of use.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4880 Senior Honors Thesis
Prerequisites: PSYC 1113, PSYC 3214, PSYC 3914, departmental invitation, senior standing.
Description: The thesis is an empirical study that results in a manuscript conforming to APA style. It should contain a literature review that informs specific hypothesis, as well as method, results, discussion, and reference sections. The results section of the manuscript is typically based on data collected by the student, but it is also acceptable for it to stem from an original analysis of an archival dataset. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

PSYC 4883 Current Issues in Psychology
Prerequisites: PSYC 3214, PSYC 3914 and 3 hours MATH or STAT designated "A."
Description: A capstone course examining current issues in psychology, their relationship to current issues in other academic disciplines, and their relevance in an educated society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

PSYC 4990 Research Practicum
Prerequisites: PSYC 1113, PSYC 3214 and consent of instructor.
Description: Supervised research experiences in psychology with a faculty member. May involve meetings and written paper(s). Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5000 Thesis
Description: Required of all graduate students majoring in psychology and writing a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5073 Principles of Neuroscience
Description: This course examines foundational theories and principles related to the neural mechanisms controlling physiological processes and behavior. Topics covered include cellular neurobiology, neuronal signaling, neural development and plasticity, comparative neuroanatomy, and neurobiology of complex brain functions such as sensory processing, arousal, emotions, learning, and memory. Previous coursework in physiology recommended. Same course as BIOL 5073 and BIOM 5983. May not be used for degree credit with BIOL 4073 or PSYC 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5113 Psychopathology
Prerequisites: Graduate standing in psychology or consent of instructor.
Description: Principles of diagnosis and treatment of major disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5120 Psychology Workshop
Description: Provides an opportunity to study specific psychological problems, both applied and theoretical. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5153 Cognitive Assessment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: Issues of psychological testing and assessment, psychometric theory, and ethics of testing as well as fundamental skills of cognitive and intellectual assessment, including administration, scoring, and interpretation of cognitive tests and report writing. Application of cognitive tests to specific clinical problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5190 Ethics and Professional Development in Psychology
Prerequisites: Graduate standing in the Department of Psychology.
Description: Professional development, ethics, and legal issues relevant to teaching, research, and clinical practice of psychology. Previously offered as PSYC 5193. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5233 Introduction to Clinical Methods
Prerequisites: Consent of instructor.
Description: Introduction to a variety of topics relevant to clinical psychology training and professional development. Course will provide a foundation for subsequent training experiences. A special emphasis is placed upon developing the common therapy skills that will form a foundation for future clinical training experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5243 Psychology of Aging
Prerequisites: Consent of instructor.
Description: This course aims to increase your understanding of the human aging process through traditional classroom experiences focusing on knowledge of the physical, cognitive, and social changes that are part of late adulthood. Additionally, students will learn more actively by working with older adults who are living in our community. Our overall goal is to enhance our understanding of the psychology of aging by integrating our classroom-acquired knowledge with our community service experiences. May not be used for degree credit with PSYC 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5293 Decision Making and Problem Solving
Prerequisites: Consent of instructor.
Description: An examination of the research literature on individual decision-making and problem solving with dual emphases on theory and application. A thorough prior understanding of the human cognitive system is desirable, but not required. May not be used for degree credit with PSYC 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5304 Quantitative Methods in Psychology I
Description: Hypothesis testing, chi-square, student's t, bivariate correlation and linear regression in psychology. Critical thinking regarding the application of statistical methods is stressed. The use of contemporary statistical software for analyses is covered. Course previously offered as PSYC 5303.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5314 Quantitative Methods in Psychology II
Prerequisites: PSYC 5304.
Description: Higher-order analysis of variance designs, correlation and regression techniques, and analysis of covariance, with emphasis on applications to psychological experimentation. Computer applications of all procedures using SPSS and/or SAS during the lab. Course previously offered as PSYC 5313.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Psychology

PSYC 5333 Systems of Psychotherapy
Prerequisites: PSYC 5113; graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: The major approaches to psychotherapy. Methods for creating multiple impact for behavioral change, including interpersonal, social, community and preventative interventions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5380 Research
Prerequisites: Consent of instructor.
Description: Research project on some psychological problem. Offered for variable credit, 1-12 credit hours, maximum of 24 credit hours.
Credit hours: 1-24
Contact hours: Contact: 1-24 Other: 1-24
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5493 History of Psychology
Description: History of psychology as an aspect of European intellectual history. Psychological thought from early philosophical roots to modern conceptions of psychology as a science. Topics include the contribution of under-represented groups to psychology and the role of non-European contributions to psychological thought and the solution to practical problems. May not be used for degree credit with PSYC 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5533 Personality
Prerequisites: Consent of instructor.
Description: Basic assumptions, research, and clinical issues relating to the major personality theories. May not be used for degree credit with PSYC 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5620 Seminar in Psychology
Prerequisites: Consent of instructor.
Description: Consideration of special topics that are particularly timely or technical in nature. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 5660 Teaching Practicum
Prerequisites: Consent of instructor.
Description: Primarily for graduate students with well-defined new teaching responsibilities. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5663 Affective Neuroscience
Description: This course will examine biological mechanisms underlying emotions. Topics include basic theories of emotion, the neural circuits associated with emotion generation, as well as related cognitive processes. May not be used for degree credit with PSYC 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5813 Lifespan Cognitive Developmental Psychology
Prerequisites: Consent of instructor.
Description: Examines theory and basic research related to the age-related changes in human cognition that occur for a typically developing individual during infancy, childhood, early adulthood, middle age and late adulthood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5823 Cognitive Processes
Description: Theory and experimental research findings dealing with human thought processes from a developmental and functional standpoint.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 5913 Lifespan Social Developmental Psychology
Prerequisites: Consent of instructor.
Description: Examines theory and basic research in social, emotional, and personality development in infancy, childhood, adolescence, and adulthood.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6000 Dissertation
Description: Research and report thereon by graduate students in partial fulfillment of requirements for the Doctor of Philosophy degree. Offered for variable credit, 1-16 credit hours, maximum of 60 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6083 Principles of Evidence-Based Psychological Treatment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: Principles and procedures of evidence-based psychological treatments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6133 Ethnic and Cultural Diversity in Psychotherapy
Prerequisites: Six credit hours of psychology and consent of instructor.
Description: Increasing understanding and appreciation of ethnic and cultural diversity in the psychotherapy context. Critical examination of theory and research related to psychotherapy with multicultural populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6143 The Psychology of Substance Abuse
Prerequisites: Consent of instructor.
Description: Introduction to psychological classification of psychoactive substance (alcohol and drug) use disorders. Theory and research on psychological, biological, and environmental factors that are concomitants of substance abuse. Overview of major research techniques and treatment modalities in this area.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6173 Child Psychopathology and Treatment
Prerequisites: Graduate standing in the clinical program of the Department of Psychology, the doctorate school psychology program or the psychometry program, or consent of instructor.
Description: Theoretical positions and issues in child psychopathology. Procedures used in the treatment of psychological disorders of children.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6223 Research Design
Description: Experimental techniques in psychophysics, sensory processes, attention and perception, motivation and emotion, and learning and memory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6233 Clinical Research Design
Prerequisites: PSYC 5304 and PSYC 5314 or consent of instructor.
Description: Methodology and research practices in clinical psychology, including experimental design, research practice, data analysis and interpretation, ethics, and dissemination of research findings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6253 Seminar in Human Development
Prerequisites: Consent of instructor.
Description: Behavioral aspects of development from the prenatal period to senescence. Normal development contrasted to exceptional development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6353 Psychology of Motivation
Description: Outline of theory and research in human and animal motivation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6393 Language Development
Description: Review of data and theories of language development. Laboratory techniques and experimental designs will also be reviewed to emphasize understanding of past and contemporary research in language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6413 Evidence Based Assessment and Therapy
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or consent of instructor.
Description: This course is designed to enhance students' historical, theoretical, empirical, and technical understanding of evidence-based psychological treatments and introduce clinical psychology graduate students to issues and skills relevant for psychodiagnostic and personality assessment. The scope of this course will be limited to assessments and treatments typically delivered to adults seen in an outpatient setting, as well as the historical context of assessment and psychological treatment, research evidence, and descriptions and demonstrations of techniques. No credit for PSYC 6083 or PSYC 6753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6443 Behavioral Medicine
Prerequisites: Graduate standing in the clinical program of the Department of Psychology; consent of instructor.
Description: An advanced graduate course for students in training for a PhD in clinical psychology. General considerations for psychophysiological disorders, general intervention strategies in behavioral medicine, including biofeedback and specific consideration and intervention strategies for specific disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6453 Pediatric Psychology
Prerequisites: Graduate standing in the Department of Psychology; consent of instructor.
Description: Overview of the field of pediatric psychology, including historical perspectives, theoretical underpinnings, and application to a variety of child health problems. Childhood chronic illness, injury prevention, pain management, and consultation and intervention in medical contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6483 Neurobiological Psychology
Prerequisites: PSYC 3073 and PSYC 3914 or consent of instructor.
Description: Physiological, neuroanatomical, and neurochemical underpinnings of human behavior. Emphasis on effects of central nervous system dysfunctions on behavioral processes ranging from sensation to concept formation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6523 Family Treatment Methods
Prerequisites: Graduate standing in the clinical program of the Department of Psychology or the doctorate counseling psychology program.
Description: Introduction to techniques and philosophies of family treatment. Includes marital counseling and emphasis on family dynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6543 Stereotyping, Prejudice, and Discrimination in Social Cognition
Prerequisites: Consent of Instructor.
Description: In this course we will investigate the social and cognitive processes and implications of stereotyping, prejudice, and discrimination (SPD). We will consider such questions as: What are the psychological and material costs of SPD - both for targets and those who hold them? Where do our stereotypes and prejudices come from, and what functions might they serve? How do perceptions, attention, and memory shape - and get shaped by - SPD?
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6563 Advanced Social Psychology
Description: History, theory and experimentation of dynamic interaction of group membership and individual behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6583 Developmental Psychobiology
Prerequisites: Consent of instructor.
Description: An exploration of the biological aspects of human development with particular emphasis on the physiological, ethological, and genetic perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6593 Evolutionary Social Science
Prerequisites: Consent of Instructor.
Description: Evolutionary social science (ESS) is an interdisciplinary topic. This course will introduce you to ESS, which includes evolutionary psychology, human behavioral ecology, and cultural evolution. The course goal is to introduce you to evolutionary approaches to investigating human social cognition and behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6613 Experimental Learning Theories
Prerequisites: Nine credit hours of psychology.
Description: Basic concepts and empirical findings in animal and human learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6640 Clinical Practicum
Prerequisites: Graduate standing in the clinical program of the Department of Psychology.
Description: Practicum experience for graduate students in the clinical psychology program. Offered for variable credit, 1-12 credit hours, maximum of 17 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6643 Psychopharmacology
Prerequisites: Consent of instructor.
Description: A comprehensive course dealing with the various classes of drugs that affect the central nervous system. Primary focus is on clinical research with humans. Covers topics ranging from drug-receptor interactions through substance abuse and behavioral disorders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6650 Practicum
Prerequisites: Graduate standing in the clinical program of the Department of Psychology.
Description: For the marriage and family practicum only, doctoral level counseling psychology students may also enroll. Practicum experience for graduate students in the clinical program of the Department of Psychology who are doing supervised practicum in specific clinical areas of specialization. Offered for variable credit, 1-16 credit hours, maximum of 16 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Psychology

PSYC 6723 Child Diagnostic Methods
Prerequisites: PSYC 5153, graduate standing in the clinical program in psychology or the doctoral school psychology program or consent of instructor.
Description: Administration and interpretation of diagnostic instruments used specifically with children.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6753 Assessment of Personality
Prerequisites: Graduate standing in the clinical program or consent of instructor.
Description: Personality assessment and training in the practice of clinical assessment. Trait theory and assessment, techniques of test construction, contemporary assessment techniques including the MMPI-2, test result interpretation and communication, and behavioral methods of assessment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6813 Multivariate Statistics for Psychology
Prerequisites: PSYC 5304 and 5314 or permission of instructor.
Description: A variety of multivariate statistical methods are covered with emphasis on their application to psychological research. Factor analysis, MANOVA, CANONA, Generalized Procrustes Analysis, as well as other topics are covered. Matrix algebra is also reviewed, and the geometric approach to multivariate statistics is introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6913 Multilevel Modeling in Psychology
Prerequisites: PSYC 5304 and 5314; or permission of instructor.
Description: Trains students in the theory and application of multilevel models for nested and repeated measures data in psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

PSYC 6990 Advanced Internship in Clinical Psychology
Description: Graduate standing in the clinical psychology program or consent of instructor. Designed to provide advanced clinical training in preparation for receipt of the Ph.D. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Psychology

SPCH 2713 Introduction to Speech Communication (S)
Description: The practical and theoretical examination of the process of human communication involving a variety of contexts, including interpersonal relationships, small group discussions, and public speaking performances.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

SPCH 2890 Honors Experience in Speech
Prerequisites: Honors Program participation and concurrent enrollment in a designated SPCH course.
Description: A supplemental Honors experience in Speech Communication to partner concurrently with designated SPCH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

SPCH 3703 Small Group Communication
Description: General systems approach to small group processes. Special consideration given to group roles, norms, leadership and decision-making. Participation in various types of discussion groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3723 Business and Professional Communication
Description: Oral communication encounters in business and professional settings. The interview, informative briefing, talking-paper, small group interaction and informative, integrative and persuasive speeches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3733 Elements of Persuasion (S)
Description: An examination of current theory and research relevant to the process of persuasion and social influence in interpersonal, small group, mass media, and public settings. Includes a discussion of the practical implications of effective and ineffective persuasive strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

SPCH 3743 Advanced Public Speaking
Description: The preparation and delivery of various types of public speeches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3793 Communication in Interviews
Description: General principles of interviewing. Specific guidelines for the interviewer in survey, journalistic, counseling, selection, appraisal, legal, medical, and sales interviews.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 3890 Advanced Honors Experience in Speech
Prerequisites: Honors Program participation and concurrent enrollment in a designated SPCH course.
Description: A supplemental Honors experience in Speech Communication to partner concurrently with designated upper-division SPCH course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Honors Credit

SPCH 4010 Independent Study in Speech Communication
Prerequisites: Consent of instructor.
Description: Supervised research projects in speech communication. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

SPCH 4710 Topics in Speech Communication
Description: Selected current topics in speech communication. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Psychology

SPCH 4743 Problems of Interpersonal Speech Communication
Description: Application of communication theory to interactions in person-to-person settings. Identification and management of barriers related to the concepts of perception, attraction, self-disclosure, listening and conflict.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 4753 Intercultural Communication (G)
Description: Social and cultural differences between individuals from diverse backgrounds as possible barriers to effective communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: International Dimension

SPCH 4763 Organizational Communication
Description: The interface between communication theory and organizational structure. Nature of communication problems in organizations, strategies for overcoming such problems and the design of effective communication systems in organizational settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology

SPCH 4793 Nonverbal Communication (S)
Description: The study of current theory and research relevant to nonverbal behavior in interpersonal and professional relationships. Includes an examination of various nonverbal codes (e.g., body language, facial expressions) and the functions of nonverbal behavior (e.g., emotional expression, deception).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Psychology
General Education and other Course Attributes: Society & Human Behavior

Undergraduate Programs

- Psychology, BA (p. 1842)
- Psychology, BS (p. 1846)
- Psychology: Business Essentials, BA (p. 1849)
- Psychology: Pre-Law, BA (p. 1852)
- Psychology: Pre-Med, BS (p. 1856)
- Psychology: Pre-Occupational Therapy, BS (p. 1860)
- Psychology: Pre-Physical Therapy, BS (p. 1863)

Graduate Programs

Employment in the professional field of psychology requires a graduate degree. Psychologists with advanced degrees have exclusive claim to some professional positions.

The Department of Psychology offers two programs of study leading to the degree of Doctor of Philosophy, one in Clinical Psychology and one in Experimental Psychology. Students applying for the doctoral degree should have the following prerequisites: introductory psychology, quantitative psychology, experimental psychology, history and systems. Abnormal psychology is recommended for students applying to the clinical program.

Students in the doctoral program first work toward a Master of Science degree. In addition to meeting the general requirements of the Graduate College, for completion of the Master of Science, students must also:

1. Complete two semesters of quantitative psychology along with other course credits totaling 30 credit hours.
2. Complete a thesis project, supervised and reviewed by appropriate faculty members.

Following the completion of requirements, the student may be admitted to doctoral status in Clinical Psychology or Experimental Psychology.

Minors

- Cognitive Science (CSCI), Minor (p. 1838)
- Communication Studies (CMST), Minor (p. 1839)
- Neuroscience (NEUR), Minor (p. 1840)
- Psychology (PSYC), Minor (p. 1841)
- Speech Communication (SPCH), Minor (p. 1866)

Faculty

Maureen Sullivan, PhD—Associate Professor and Interim Head
Regents Professors: Charles I. Abramson, PhD; John M. Chaney, PhD; Amanda S. Morris, PhD; Larry L. Mullins, PhD
Professors: Jennifer Byrd-Craven, PhD; Christina Duncan, PhD, DeMond Grant, PhD; James W. Grice, PhD; Shelia Kennison, PhD; Thad Leffingwell, PhD; Kenneth Sewell, PhD; Stephanie N. Sweatt, PhD; LaRicka Wingate, PhD
Associate Professors: Amanda Baraldi, PhD; Lucia Ciciolla, PhD; Celinda Reese-Melancon, PhD; Tony Wells, PhD
Assistant Professors: Ashley Cole, PhD; Sayuri Hayakawa, PhD; Kara Kerr, PhD; Dian Yu, PhD; Daniel Sznycer, PhD
Teaching Assistant Professors: Angie Andrade, PhD; Evan Jordan, PhD; Jennifer Labrecque, PhD; Joanna Shadlow, PhD, Kathryn Weinland, PhD

Cognitive Science (CSCI), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Shelia Kennison, 219 Psychology, 405-744-7335

Total Hours: 27

Code	Title	Hours
Minor Requirements		
Select 27 hours from at least three disciplinary areas:		27
CS 1013	Computer Science Principles	
CS 1103	Computer Programming (A)	
CS 1113	Computer Science I (A)	
CS 2133	Computer Science II	
CS 2433	C/C++ Programming	
CS 3353	Data Structures and Algorithm Analysis I	
CS 3363	Organization of Programming Languages	
CS 3443	Computer Systems	
CS 3613	Theoretical Foundations of Computing	
CS 4173	Video Game Development	
CS 4183	Video Game Design	
CS 4243	Introduction to Computer Security	
CS 4743	Extended Reality	
CS 4793	Artificial Intelligence I	
CS 4883	Social Issues in Computing	
ENGL 2243	Language, Text and Culture (HI)	
ENGL 2443	Languages of the World (I)	
ENGL 4003	History of the English Language	
ENGL 4013	English Grammar	
ENGL 4033	Discourse Analysis	
ENGL 4043	Teaching English to Speakers of Other Languages	
ENGL 4080	Studies in Linguistics	
ENGL 4083	Applied Linguistics	
ENGL 4093	Language in America (DS)	
ENGL 4143	Language and Technology	
MSIS 2103	Business Data Science Technologies	
MSIS 3243	Descriptive Analytics	
MSIS 3333	Database Systems Development	
MSIS 4003	Systems Analysis and Design	
MSIS 4133	Information Technologies for Electronic Commerce	
MSIS 4243	Digital Forensics and Incident Response	
MSIS 4253	System Certification and Accreditation	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4523	Infrastructure Development	
PHIL 3003	Symbolic Logic (A)	
PHIL 3553	Philosophy of Dreams (H)	
PHIL 3783	Ethics of Artificial Intelligence (H)	
PHIL 4003	Mathematical Logic and Computability	
PHIL 4313	Philosophy of Mind (H)	
PHIL 4543	Philosophy of Language	
PHIL 4723	Philosophy of Psychology (H)	
PHIL 4733	Philosophy of Biology (H)	
PHIL 4983	Knowledge and Reality	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4243	Psychology of Aging	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
PSYC 4990	Research Practicum	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4753	Intercultural Communication (I)	
SPCH 4793	Nonverbal Communication (S)	
Total Hours		**27**

Other Requirements

- No more than twelve hours with the same prefix.
- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Communication Studies (CMST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Caitlin Shelton Justice, 213 LSE, 405-744-5658

Minimum grade and/or GPA: 2.0 GPA and no grade below "C."
At least one 3000- or 4000-level course must be selected from at least two or three categories (minimum of two 3000- or 4000-level courses overall).
Total Hours: 18

Code	Title	Hours
Course Requirements		
English		
Select six hours from the following:		6
ENGL 2233	Writing as a Profession (H)	
ENGL 3223	Professional Writing Theory	
ENGL 3323	Technical Writing	
ENGL 4530	Studies in Professional Writing (Prerequisites: six credit hours of English)	
ENGL 4543	Style and Editing	
ENGL 4553	Visual Rhetoric and Design	
ENGL 4583	Writing for the Public	
Mass and Strategic Communications		
Select six hours from the following:		6
MC 1143	Media in a Diverse Society (DS)	
MC 2023	Electronic Communication (Prequisite: ENGL 1213 or ENGL 1223 or ENGL 1413 with a grade of "C" or better. Departmental majors only - waived for students enrolled in Minor/Certificate program with a 2.75 GPA and pending available space.)	
SC 2183	Introduction to Strategic Communications (Prequisite: Departmental majors only. Prequisite waived for students enrolled in Minor/Certificate program.)	
SPM 2843	Sports and the Media (Prequisite: Departmental majors only. Prequisite waived for students enrolled in Minor/ Certificate program.)	
SC 3043	Entertainment in the Media	
MC 3173	History of Mass Communication (H)	
SC 3443	Social Media (Prerequisite: MC 2003 and MC 2023 and SC 2183 with a grade of "C" or better in each; and pass proficiency review. Prequisite waived for students enrolled in Minor/Certificate program.)	
Speech Communication		
Select six hours from the following:		6
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3703	Small Group Communication	
SPCH 3723	Business and Professional Communication	
SPCH 3733	Elements of Persuasion (S)	
SPCH 3743	Advanced Public Speaking	
SPCH 4753	Intercultural Communication (I)	
SPCH 4793	Nonverbal Communication (S)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Neuroscience (NEUR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Silvia Daggy, 213 LSE, 405-744-5658

Minimum grade and/or GPA: No grade lower than "C" in minor course.
Total Hours: 25

Code	Title	Hours
Course Requirements		
BIOL 1114	Introductory Biology (LN)	4
BIOL 3204	Physiology	4
CHEM 1215	Chemical Principles I (LN) [1]	4
or CHEM 1314	Chemistry I (LN)	
or CHEM 1414	General Chemistry for Engineers (LN)	
HHP 4064	Neuroanatomy	4
PSYC 4073	Principles of Neuroscience	3
or BIOL 4073	Principles of Neuroscience	
Hours Subtotal		**19**
Elective Requirements		
Select six hours from the following and include at least two course prefixes:		6
BIOL 4215	Mammalian Physiology	
BIOL 4253	Pharmacology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
CDIS 4423	Neural Bases of Speech and Language (N)	
HHP 4013	Motor Control and Learning	
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
or PSYC 3823	Cognitive Psychology	
PSYC 4263	Affective Neuroscience	
Hours Subtotal		**6**
Total Hours		**25**

1

If CHEM 1215 is selected, the total hours required for the minor will be increased by one.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Psychology (PSYC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Carrina Lickteig, 213 LSE, 405-744-5658

Total Hours: 24

Code	Title	Hours
Minor Requirements		
PSYC 1113	Introductory Psychology (S)	3
Select 9 hours upper- or lower-division PSYC		9
Select 12 hours upper-division PSYC		12
Total Hours		**24**

Other Requirements

- No grade below "C."
- CPSY & EPSY courses not applicable.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Psychology, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	3
or STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses		
No more than 9 hours of PSYC may be 2000 level		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 30 hours, including at least one course from each of the 4 competency areas: [2]		30
Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality	
PSYC 4813	Psychological Testing	
Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2583	Developmental Psychology (S)	
PSYC 2593	Psychology of Human Sexuality	
PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	

PSYC 4163	Psychology of Prejudice and Discrimination (D)
PSYC 4243	Psychology of Aging
Clinical, Applied Psychology:	
PSYC 2443	Clinical Child Psychology
PSYC 3443	Psychopathology (S)
PSYC 3883	Positive Psychology
PSYC 4013	Introduction to Pediatric Psychology
PSYC 4143	Psychology and Law
PSYC 4183	Issues in Clinical Psychology
PSYC 4213	Conflict Resolution (S)
PSYC 4283	Health Psychology
PSYC 4293	Forensic Psychology
PSYC 4483	Psychology of Parent Behavior (S)
PSYC 4633	Psychology of Sport and Human Performance
Other PSYC Elective Courses:	
PSYC 2890	Honors Experience in Psychology
PSYC 3120	Special Topics in Psychology (1-12 hours)
PSYC 3990	Teaching Practicum (1-6 hours)
PSYC 4353	History of the Human Soul
PSYC 4493	History of Psychology
PSYC 4770	Undergraduate Senior Thesis (1-6 hours)
PSYC 4880	Senior Honors Thesis (1-6 hours)
PSYC 4883	Current Issues in Psychology
PSYC 4990	Research Practicum (1-6 hours)
Emphasis	
Complete one Emphasis outside PSYC (p. 1843)	12
Hours Subtotal	**51**
Electives	
Select 7 hours [2]	7
May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
Hours Subtotal	**7**
Total Hours	**120**

Emphasis

General Emphasis

Code	Title	Hours
Select 12 hours of upper-division courses of the following:		12
AMST, ANTH, ART[1], BCOM, CDIS, CPSY, ECON, EEE, ENGL, EPSY, GEOG, GWST, HDFS, HIST, LSB, MGMT, MKTG, MUSI[1], PHIL, POLS, REL, SOC, SPCH, TH[1] and Foreign Language		

1

Music performance, studio art and applied theatre are not permitted.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for this degree, including these 12 hours and 15 hours of electives. Up to 3 hours may be substituted from the required PSYC courses other than PSYC 1113 Introductory Psychology (S), PSYC 3214 Statistical Methods in Psychology and PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology.

Applied Emphasis

Code	Title	Hours
Select 12 hours of upper-division courses of the following:		12
AMIS 4013	American Indian Sovereignty (D)	
AMST 4553	Gender in America (DH)	
BIOL 3123	Human Heredity (N)	
CPSY 3003	Introduction to Counseling and Related Professions	
EPSY 3113	Psychological Foundations of Childhood	
EPSY 3213	Psychology of Adolescence	
EPSY 3413	Child and Adolescent Development	
EPSY 3533	Motivating Learners	
GWST 3513	Theorizing Sexualities (D)	
HDFS 3123	Parenting (S)	
HDFS 3203	Children's Play: A World Perspective (G)	
HDFS 3413	Infant and Child Development	
HDFS 3423	Adolescent Development in Family Contexts (S)	
HDFS 3443	Family Dynamics	
HDFS 4413	Successful Aging (S)	
HDFS 4573	Introduction to Marriage and Family Therapy	
HDFS 4793	The Family: A World Perspective (GS)	
HDFS 4813	Dying, Death and Bereavement	
HHP 3114	Physiology of Exercise	
HHP 3333	Ethics in Sports Administration and Coaching	
HHP 3443	Psychosocial Aspects of Sport and Coaching	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3511	Peer Health Education I	
HLTH 3613	Community Health	
HLTH 3643	Health Behavior Theory	
HLTH 3723	Principles of Epidemiology	
HLTH 3913	Substance Use & Public Health	
HLTH 4233	Health and Sexuality (DS)	
HLTH 4533	Psychosocial Issues in Public Health	
MGMT 3943	Sports Management	
PHIL 4013	Perspectives on Death and Dying (H)	
PHIL 3833	Biomedical Ethics (H)	
POLS 3983	Courts and Judicial Process (S)	
SCFD 3223	Role of Teacher in American Schools (D)	
SCFD 4913	International Issues and the Role of the School	
SOC 3523	Juvenile Delinquency (DS)	

SOC 3993	Sociology of Aging (DS)
SOC 4023	Juvenile Corrections and Treatment Strategies
SOC 4213	Sociology of Sexualities (S)
SOC 4313	Sociology of Law
SOC 4333	Criminology (S)
SOC 4723	Sociology of Families (S)
SPCH 4793	Nonverbal Communication (S)
SPED 4723	Transition Into Adulthood for Individuals with Disabilities

Business Emphasis

Code	Title	Hours
Select 12 hours of upper-division courses of the following:		12
BCOM, EEE, LSB, MGMT, MKTG, FIN, STAT		

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to

enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
PSYC 1113	Introductory Psychology (S)	3
MATH 1483	Mathematical Functions and Their Uses (Q) ((or higher except MATH 1493) or Stat 2013)	3
General Education courses		10
	Hours	**16**
Spring		
General Education courses		13
	Hours	**13**
Sophomore		
Fall		
PSYC 3214	Statistical Methods in Psychology	4
1713 First Semester Foreign Language		3
General Education courses		9
PSYC 1111	Succeeding in Psychology	1
	Hours	**17**
Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		7
	Hours	**14**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	3
or STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Arts & Humanities		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses		
No more than 9 hours of PSYC may be 2000 level		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 30 hours, including at least one course from each of the 4 competency areas:		30
Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality	
PSYC 4813	Psychological Testing	
Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2583	Developmental Psychology (S)	
PSYC 2593	Psychology of Human Sexuality	
PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
PSYC 4243	Psychology of Aging	

Clinical, Applied Psychology:		
PSYC 2443	Clinical Child Psychology	
PSYC 3443	Psychopathology (S)	
PSYC 3883	Positive Psychology	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4143	Psychology and Law	
PSYC 4183	Issues in Clinical Psychology	
PSYC 4213	Conflict Resolution (S)	
PSYC 4283	Health Psychology	
PSYC 4293	Forensic Psychology	
PSYC 4483	Psychology of Parent Behavior (S)	
PSYC 4633	Psychology of Sport and Human Performance	
Other PSYC Elective Courses:		
PSYC 2890	Honors Experience in Psychology	
PSYC 3120	Special Topics in Psychology (1-12 hours)	
PSYC 3990	Teaching Practicum (1-6 hours)	
PSYC 4353	History of the Human Soul	
PSYC 4493	History of Psychology	
PSYC 4770	Undergraduate Senior Thesis (1-6 hours)	
PSYC 4880	Senior Honors Thesis (1-6 hours)	
PSYC 4883	Current Issues in Psychology	
PSYC 4990	Research Practicum (1-6 hours)	
Upper Division		
Select 12 upper-division hours of the following: [1]		12
ANSI, BIOC, BIOL, CHEM, CS, ECON, EPSY, HDFS, MATH, MICR, NREM, NSCI, PBIO, PHYS, PLP, POLS, SOC, SPCH, STAT, and/or upper-division General Education (A), (N) OR (S) excluding PSYC		
Hours Subtotal		**51**
Electives		
Select 16 hours [1]		16
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**16**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for this degree, including these 12 hours and 15 hours of electives. Up to 3 hours may be substituted from the required PSYC courses other than PSYC 1113 Introductory Psychology (S), PSYC 3214 Statistical Methods in Psychology and PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
PSYC 1113	Introductory Psychology (S)	3
MATH 1483 or STAT 2013	Mathematical Functions and Their Uses (Q) (or higher except for MATH 1493) or Elementary Statistics (Q)	3
General Education courses		10
	Hours	**16**
Spring		
General Education courses		13
	Hours	**13**
Sophomore		
Fall		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
General Education courses		12
	Hours	**17**
Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Major, College, and Elective courses		10
	Hours	**14**
Junior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology: Business Essentials, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		*3*
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	
or STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
MGMT 3013	Fundamentals of Management (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
First-Year Seminar		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3.		9
Non-Western Studies		
At least one course. See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Satisfied by MGMT 3013 and MKTG 3213 [1]		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses.		
No more than 9 hours of PSYC may be 2000 level.		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 30 hours, to include at least one course from each competency area below:		30
Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality	
PSYC 4813	Psychological Testing	
Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2583	Developmental Psychology (S)	
PSYC 2593	Psychology of Human Sexuality	
PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	

PSYC 4243	Psychology of Aging	
Clinical, Applied Psychology:		
PSYC 2443	Clinical Child Psychology	
PSYC 3443	Psychopathology (S)	
PSYC 3883	Positive Psychology	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4143	Psychology and Law	
PSYC 4183	Issues in Clinical Psychology	
PSYC 4213	Conflict Resolution (S)	
PSYC 4283	Health Psychology	
PSYC 4293	Forensic Psychology	
PSYC 4483	Psychology of Parent Behavior (S)	
PSYC 4633	Psychology of Sport and Human Performance	
Other PSYC Elective Courses:		
PSYC 2890	Honors Experience in Psychology	
PSYC 3120	Special Topics in Psychology (1-12)	
PSYC 3990	Teaching Practicum (1-6)	
PSYC 4353	History of the Human Soul	
PSYC 4493	History of Psychology	
PSYC 4770	Undergraduate Senior Thesis (1-6)	
PSYC 4880	Senior Honors Thesis (1-6)	
PSYC 4883	Current Issues in Psychology	
PSYC 4990	Research Practicum (1-6)	
Business Essentials		
ACCT 2003	Survey of Accounting	3
MKTG 3213	Marketing (S) [1]	3
Choose 3 hours from:		3
BADM 3113	Practical Business and Interpersonal Skills	
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
FIN 3113	Principles of Finance	
LSB 3213	Legal and Regulatory Environment of Business	
Choose 6 hours upper-division from:		6
BADM, BCOM, EEE, LSB, MGMT, MKTG, FIN, STAT		
Hours Subtotal		**54**
Electives		
Select 4 hours		4
Hours Subtotal		**4**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
PSYC 1113	Introductory Psychology (S)	3
MATH 1483 or STAT 2013	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493) or Elementary Statistics (Q)	3
General Education courses		10
	Hours	**16**
Spring		
General Education courses		13
	Hours	**13**
Sophomore		
Fall		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
1713 First Semester Foreign Language		3
General Education courses		9
	Hours	**17**
Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		7
	Hours	**14**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology: Pre-Law, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following (or higher):		3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	
STAT 2013	Elementary Statistics (Q) (or higher)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
PHIL 1313	Logic and Critical Thinking (Q)	3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses		
No more than 9 hours of PSYC may be 2000 level		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 30 hours, including at least one course from each of the 4 competency areas:		30
Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory [1]	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S) [1]	
PSYC 3033	Psychology of Humor (S)	
PSYC 3013	Psychology of Motivation	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries [1]	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality [1]	
PSYC 4813	Psychological Testing	
Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2583	Developmental Psychology (S)	
PSYC 2593	Psychology of Human Sexuality	
PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D) [1]	

PSYC 4243	Psychology of Aging
Clinical, Applied Psychology:	
PSYC 2443	Clinical Child Psychology
PSYC 3443	Psychopathology (S) [1]
PSYC 3883	Positive Psychology
PSYC 4013	Introduction to Pediatric Psychology
PSYC 4143	Psychology and Law [1]
PSYC 4183	Issues in Clinical Psychology [1]
PSYC 4213	Conflict Resolution (S) [1]
PSYC 4283	Health Psychology
PSYC 4293	Forensic Psychology [1]
PSYC 4483	Psychology of Parent Behavior (S)
PSYC 4633	Psychology of Sport and Human Performance
Other PSYC Elective Courses:	
PSYC 2890	Honors Experience in Psychology
PSYC 3120	Special Topics in Psychology (1-12 hours)
PSYC 3990	Teaching Practicum (1-6 hours)
PSYC 4353	History of the Human Soul
PSYC 4493	History of Psychology
PSYC 4770	Undergraduate Senior Thesis (1-6 hours)
PSYC 4880	Senior Honors Thesis (1-6 hours)
PSYC 4883	Current Issues in Psychology
PSYC 4990	Research Practicum (1-6 hours)
Legal Emphasis	
Select 12 upper-division hours of the following: [2]	12
AMIS 4013	American Indian Sovereignty (D) [1]
AMST 3333	Crime, Law and American Culture (S)
ENGL 3223	Professional Writing Theory
ENGL 3323	Technical Writing
ENGL 4003	History of the English Language
ENGL 4013	English Grammar
GEOG 3133	Political Geography (GS)
LSB 3213	Legal and Regulatory Environment of Business
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships
LSB 4403	Law and Entrepreneurship
LSB 4413	Law of Business Organizations
LSB 4423	Employment Law (D)
LSB 4523	Law of Real Property
LSB 4633	Legal Aspects of International Business Transactions (G)
PHIL 3003	Symbolic Logic (Q)
PHIL 3413	Ethical Theory (H)
PHIL 3803	Ethics, Society, and Business (H)
PHIL 3833	Biomedical Ethics (H)
POLS 3033	International Law
POLS 3453	U.S. Congress
POLS 3533	Lobbying and the Power of Organized Interests
POLS 3523	Money, Media And Politics
POLS 3963	State Courts and the Bar
POLS 3983	Courts and Judicial Process (S)
POLS 3993	Legal Research And Analysis
POLS 4353	Administrative Law
POLS 4363	Environmental Law And Policy
POLS 4593	Natural Resources and Environmental Policy
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties
POLS 4973	U.S. Constitution: Separation of Powers
SOC 3523	Juvenile Delinquency (DS)
SOC 4023	Juvenile Corrections and Treatment Strategies
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)
SOC 4313	Sociology of Law
SOC 4333	Criminology (S)
SOC 4733	Criminal Behavior Analysis
SOC 4743	Criminalistics: Introduction to Forensic Sciences
SOC 4753	Advanced Forensics
SOC 4923	Sociology of Punishment (S)
SPCH 3733	Elements of Persuasion (S)
SPCH 4753	Intercultural Communication (G)
SPCH 4793	Nonverbal Communication (S)
Hours Subtotal	**51**
Electives	
Select 7 hours [2]	7
May need to include 6 hours upper-division general education outside major department. See note 2.c.	
Recommended courses:	
POLS 2023	The Individual And The Law
SPCH 2713	Introduction to Speech Communication (S)
Hours Subtotal	**7**
Total Hours	**120**

1

Denotes recommended courses.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for this degree, including these 12 hours, 7 hours of electives and 11 more hours that can count to be transferred back from the law program. Up to 3 hours may be substituted from the required PSYC courses other than PSYC 1113 Introductory Psychology (S), PSYC 3214 Statistical Methods in Psychology and PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
PSYC 1113	Introductory Psychology (S)	3
MATH 1483 or STAT 2013	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493) or Elementary Statistics (Q)	3
General Education courses		10
	Hours	**16**
Spring		
2000-Level PSYC Course		3
General Education courses		13
	Hours	**16**
Sophomore		
Fall		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PHIL 1313	Logic and Critical Thinking (Q)	3
1713 First Semester Foreign Language		3
General Education courses		3
	Hours	**14**

Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
1813 Second Semester Foreign Language		3
Major, College, and Elective courses		7
	Hours	**14**
Junior		
Fall		
2000-level Foreign Language		3
Major, College, and Elective courses		12
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology: Pre-Med, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except MATH 1493)	3
(Minimum grade of "C")		
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N)		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
BIOL 1604	Animal Biology	4
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses		
No more than 9 hours of PSYC may be 2000 level		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 30 hours, including at least one course from each of the 4 competency areas:		30
Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N) [1]	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory [1]	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience [1]	
PSYC 4343	Language Development (S)	
Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality [1]	
PSYC 4813	Psychological Testing	
Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2583	Developmental Psychology (S) [1]	
PSYC 2593	Psychology of Human Sexuality	

PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
PSYC 4243	Psychology of Aging	
Clinical, Applied Psychology:		
PSYC 2443	Clinical Child Psychology	
PSYC 3443	Psychopathology (S) [1]	
PSYC 3883	Positive Psychology	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4143	Psychology and Law	
PSYC 4183	Issues in Clinical Psychology [1]	
PSYC 4213	Conflict Resolution (S)	
PSYC 4283	Health Psychology [1]	
PSYC 4293	Forensic Psychology	
PSYC 4483	Psychology of Parent Behavior (S)	
PSYC 4633	Psychology of Sport and Human Performance	
Other PSYC Elective Courses:		
PSYC 2890	Honors Experience in Psychology	
PSYC 3120	Special Topics in Psychology (1-12 hours)	
PSYC 3990	Teaching Practicum (1-6 hours)	
PSYC 4353	History of the Human Soul	
PSYC 4493	History of Psychology	
PSYC 4770	Undergraduate Senior Thesis (1-6 hours)	
PSYC 4880	Senior Honors Thesis (1-6 hours)	
PSYC 4883	Current Issues in Psychology	
PSYC 4990	Research Practicum (1-6 hours)	
Other Requirements [2]		
CHEM 3053	Organic Chemistry I	3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1114 & PHYS 1214	College Physics I (LN) and College Physics II (LN)	8
Select 6 hours of the following: [2]		6
Recommended for MCAT prep at least one course from each category		
Category 1:		
MICR 2123	Introduction to Microbiology	
MICR 3033	Cell and Molecular Biology	
BIOL 3023	General Genetics	
Category 2:		
BIOC 3653	Survey of Biochemistry	
MICR 3223	Advanced Microbiology	
BIOL 3104	Invertebrate Zoology	
Category 3:		
BIOL 3204	Physiology	
BIOL 3214	Human Anatomy	
Category 4:		
BIOL 3233	Human Reproduction	
BIOL 4134	Embryology	
BIOL 4283	Endocrinology	
Hours Subtotal		**61**
Electives		
Select 5 hours [2]		5
May need to include 6 hours of a foreign language. See note 3		
May need to include 6 hours upper-division general education outside major department. See note 2.c.		
Suggested course: SOC 1113		
Hours Subtotal		**5**
Total Hours		**120**

1

Denotes recommended courses.

2

With approval from the advisor and department head, a maximum of 30 hours from an accredited health program may be used for this degree, including these additional 22 hours and 5 hours of electives. Up to 3 hours may be substituted from the required PSYC courses other than PSYC 1113 Introductory Psychology (S), PSYC 3214 Statistical Methods in Psychology and PSYC 3914 Experimental Psychology: Introduction to Research Methods in Psychology.

Additional requirements for professional school exist. View Admission Requirement sheet at prehealth.okstate.edu (http://prehealth.okstate.edu).

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be

satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher except for MATH 1493)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
PSYC 1113	Introductory Psychology (S)	3
General Education courses		4
	Hours	**14**
Spring		
CHEM 1314	Chemistry I (LN)	4
General Education courses		12
	Hours	**16**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
BIOL 1604	Animal Biology	4
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
	Hours	**14**
Spring		
CHEM 3053	Organic Chemistry I	3
3 Hours Pre-Med science		3
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
General Education courses		6
	Hours	**16**
Junior		
Fall		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1114	College Physics I (LN)	4
Major, College, and Elective courses		6
	Hours	**15**
Spring		
PHYS 1214	College Physics II (LN)	4
3 Hours Pre-Med Science		3
Major, College, and Elective courses		8
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Psychology: Pre-Occupational Therapy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) (or higher)	3
(Minimum grade of "C")		
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Course designated (N) with one (L)		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 1114	College Physics I (LN)	4
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1003	Computer Proficiency	3
6 additional hours. See note 2.b. CHEM, MICR, or BIOL recommended.		6
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses.		
No more than 9 hours of PSYC may be 2000 level.		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 2583	Developmental Psychology (S)	3
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3443	Psychopathology (S)	3
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 24 hours, including at least one course from competency areas 1 and 2		24
1) Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
2) Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality	
PSYC 4813	Psychological Testing	
3) Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2593	Psychology of Human Sexuality	

PSYC 3343	Black Psychology (DS)	
PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
PSYC 4243	Psychology of Aging	
4) Clinical, Applied Psychology:		
PSYC 2443	Clinical Child Psychology	
PSYC 3883	Positive Psychology	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4143	Psychology and Law	
PSYC 4183	Issues in Clinical Psychology	
PSYC 4213	Conflict Resolution (S)	
PSYC 4283	Health Psychology	
PSYC 4293	Forensic Psychology	
PSYC 4483	Psychology of Parent Behavior (S)	
PSYC 4633	Psychology of Sport and Human Performance	
Other PSYC Elective Courses:		
PSYC 2890	Honors Experience in Psychology	
PSYC 3120	Special Topics in Psychology	
PSYC 3990	Teaching Practicum (1-6 hours)	
PSYC 4353	History of the Human Soul	
PSYC 4493	History of Psychology	
PSYC 4770	Undergraduate Senior Thesis (1-6 hours)	
PSYC 4880	Senior Honors Thesis (1-6 hours)	
PSYC 4883	Current Issues in Psychology	
PSYC 4990	Research Practicum (1-6 hours)	
12 hours of Science:		
BIOL 3214	Human Anatomy	4
BIOL 3204	Physiology	4
4 additional upper-division hours from: ANSI, BIOC, BIOL, CHEM, CS, ECON, EPSY, HDFS, MATH, MICR, NREM, NSCI, PBIO, PHYS, PLP, POLS, SOC, SPCH, STAT, and/or upper division General Education (A), (N), OR (S) excluding PSYC		4
Hours Subtotal		**51**
Electives: 15 Hours		**15**
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department. See note 2.c.		
Recommended course:		
HHP 2802	Medical Terminology for the Health Professions	
Hours Subtotal		**15**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two

years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1513	College Algebra (Q) (or higher)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
PSYC 1113	Introductory Psychology (S)	3
General Education courses		5
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
PSYC 2583	Developmental Psychology (S)	3
General Education courses		8
	Hours	**15**
Sophomore		
Fall		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
CS 1003	Computer Proficiency	3
General Education and Elective courses		7
	Hours	**15**
Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
PHYS 1114	College Physics I (LN)	4
General Education courses		7
	Hours	**15**
Junior		
Fall		
BIOL 3204	Physiology	4
Major, College, and Elective courses		11
	Hours	**15**
Spring		
BIOL 3214	Human Anatomy	4
Major, College, and Elective courses		11
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Psychology: Pre-Physical Therapy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) (or higher MATH (A) course)	3
(Minimum grade of "C")		
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
One additional hour. See note 2.b.		1
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.00 with a minimum grade of "C" in all PSYC courses.		
No more than 9 hours of PSYC may be 2000 level.		
Core Requirements		
PSYC 1111	Succeeding in Psychology	1
PSYC 2583	Developmental Psychology (S)	3
PSYC 3214	Statistical Methods in Psychology	4
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
Select 27 hours, including at least one course from areas 1, 2, and 4:		27
1) Learning, Cognition, Biological Basis:		
PSYC 3073	Neurobiological Psychology (N)	
PSYC 3113	Comparative Psychology (N)	
PSYC 3173	Introduction to Cognitive Science (N)	
PSYC 3513	Psychology of Learning	
PSYC 3713	Psychology of Memory	
PSYC 3823	Cognitive Psychology	
PSYC 4023	Evolutionary Psychology (N)	
PSYC 4073	Principles of Neuroscience	
PSYC 4223	Decision Making and Problem Solving	
PSYC 4263	Affective Neuroscience	
PSYC 4343	Language Development (S)	
2) Psychometrics, Personality, Social Processes:		
PSYC 2743	Social Psychology (S)	
PSYC 3003	Data Analysis with Observation Oriented Modeling	
PSYC 3013	Psychology of Motivation	
PSYC 3033	Psychology of Humor (S)	
PSYC 3053	Psychology of Art (S)	
PSYC 3413	Social Cognition & Behavior; Mating, Morality, & other Mysteries	
PSYC 4153	Psychology and Mass Media	
PSYC 4333	Personality	
PSYC 4813	Psychological Testing	
3) Developmental and Sociocultural Dimensions:		
PSYC 2313	Psychology of Adjustment	
PSYC 2593	Psychology of Human Sexuality	
PSYC 3343	Black Psychology (DS)	

PSYC 4123	Psychology of Women (DS)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
PSYC 4243	Psychology of Aging	
4) Clinical, Applied Psychology:		
PSYC 2443	Clinical Child Psychology	
PSYC 3443	Psychopathology (S)	
PSYC 3883	Positive Psychology	
PSYC 4013	Introduction to Pediatric Psychology	
PSYC 4143	Psychology and Law	
PSYC 4183	Issues in Clinical Psychology	
PSYC 4213	Conflict Resolution (S)	
PSYC 4283	Health Psychology	
PSYC 4293	Forensic Psychology	
PSYC 4483	Psychology of Parent Behavior (S)	
PSYC 4633	Psychology of Sport and Human Performance	
Other PSYC Elective Courses:		
PSYC 2890	Honors Experience in Psychology	
PSYC 3120	Special Topics in Psychology	
PSYC 3990	Teaching Practicum	
PSYC 4353	History of the Human Soul	
PSYC 4493	History of Psychology	
PSYC 4770	Undergraduate Senior Thesis	
PSYC 4880	Senior Honors Thesis	
PSYC 4883	Current Issues in Psychology	
PSYC 4990	Research Practicum	
12 hours of Science:		
BIOL 3214	Human Anatomy	4
BIOL 3204	Physiology	4
4 additional upper-division hours from ANSI, BIOC, BIOL, CHEM, CS, ECON, EPSY, HDFS, MATH, MICR, NREM, NSCI, PBIO, PHYS, PLP, POLS, SOC, SPCH, STAT, and/or upper-division General Education (A), (N) OR (S) excluding PSYC.		4
Hours Subtotal		**51**
Electives		
Select 15 hours		15
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department. See note 2.c.		
Hours Subtotal		**15**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of

college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
MATH 1513	College Algebra (Q) (or higher MATH (A) course)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
PSYC 1113	Introductory Psychology (S)	3
General Education courses		5
	Hours	**15**
Spring		
CHEM 1314	Chemistry I (LN)	4
PSYC 2583	Developmental Psychology (S)	3
General Education courses		8
	Hours	**15**
Sophomore		
Fall		
PSYC 1111	Succeeding in Psychology	1
PSYC 3214	Statistical Methods in Psychology	4
PHYS 1114	College Physics I (LN)	4
CS 1003	Computer Proficiency	3
General Education and Elective courses		3
	Hours	**15**
Spring		
PSYC 3914	Experimental Psychology: Introduction to Research Methods in Psychology	4
PHYS 1214	College Physics II (LN)	4
General Education courses		7
	Hours	**15**
Junior		
Fall		
BIOL 3204	Physiology	4
Major, College, and Elective courses		11
	Hours	**15**
Spring		
BIOL 3214	Human Anatomy	4
Major, College, and Elective courses		11
	Hours	**15**
Senior		
Fall		
Major, College, and Elective courses		15
	Hours	**15**
Spring		
Major, College, and Elective courses		15
	Hours	**15**
	Total Hours	**120**

Speech Communication (SPCH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Nina Williams, 213 LSE, 405-744-5658

Minimum GPA: 2.00
Total Hours: 15

Code	Title	Hours
Required Courses		
SPCH 2713	Introduction to Speech Communication (S)	3
SPCH 3733	Elements of Persuasion (S)	3
SPCH 4793	Nonverbal Communication (S)	3
Select 6 hours of from the following:		6
SPCH 3703	Small Group Communication	
SPCH 3723	Business and Professional Communication	
SPCH 3743	Advanced Public Speaking	
SPCH 4743	Problems of Interpersonal Speech Communication	
SPCH 4753	Intercultural Communication (I)	
SPCH 4763	Organizational Communication	
PSYC 3033	Psychology of Humor (S)	
PSYC 4163	Psychology of Prejudice and Discrimination (D)	
PSYC 4213	Conflict Resolution (S)	
PSYC 4343	Language Development (S)	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Religious Studies

Courses in religious studies are a vital part of a liberal arts education. The field involves the objective study of religious belief, literature and practice around the world. Opportunity is given for serious and objective study of these aspects in relation to major religions of past and present cultures. Special attention is given to the historical bases of world religions as well as to their effect upon present-day societies, in both the East and West. Courses are offered in several world religions, biblical studies, religious thought, and religion and culture.

Courses are open to all students without regard to personal views or affiliations. No attempt is made to promote a particular view. Emphasis is placed on the academic study of religion rather than the practice of a particular form of religion. Many of the undergraduate courses enable students to satisfy humanities requirements and also provide an excellent background for many types of graduate and professional programs.

Courses

REL 1103 Introduction to World Religions (GH)
Description: Major world religions such as Hinduism, Buddhism, Judaism, Christianity and Islam with a view to understanding the general nature of religion and its various dimensions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 2013 The Old Testament and its Study (H)
Description: A study of the Old Testament with emphasis upon content, historical background, the history of its study and the critical analysis and interpretation of selected passages. Previously offered as REL 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2023 The New Testament and Its Study (H)
Description: A study of the writings of the New Testament in their historical contexts and the methods used in their study. Emphasis interpreting selected New Testament passages. Previously offered as REL 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2113 Religion in Film (H)
Description: This course will examine how religious beliefs, practices, experiences and communities have been portrayed in film. Students will explore how film has used allegory, symbolism and other tropes to represent different religious traditions and their systems of beliefs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2213 Ghosts, Gods, and Monsters
Description: Ghosts, Gods and Monsters all have something in common. They are not just an element of a given culture, but is a cipher for, or boundary markers for what is sacred and profane, monstrous and heroic, or life and death. And while all three can be found across history (depending on the lens used), how they are understood and what purposes they serve, changes depending on the time and place.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2313 Religious Violence, Wild Weather, and Ancient Prophecy
Description: This course will introduce students to religions that were in existence during ancient times. The course will focus on religions that have had an impact on cultures that may now be extinct as well as religions that developed into modern systems of belief. Students will read primary sources indigenous to these religions. We will explore aspects of religions that include violence, weather phenomena and mythology and prophetic ideas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 2413 Religion and the Body: Sports, Medicine and Sexuality (H)
Description: This course will explore the role of religious beliefs and practices as they relate to sports, medicine and sexuality. Topics will include the cultural influence of religion on sports, religiously-informed debates within the field of medicine, and conceptions of sexuality and gender from the perspective of various Eastern and Western religious traditions. More generally, this course will explore how different world religions view the human body.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2593 Mystics & Skeptics (H)
Description: This course will explore the complex relationship between mysticism, skepticism, and philosophy. Our exploration of these themes will take us into some classic epistemological problems regarding the limits of reason, and the implications of these limitations for religious faith. Other topics include: theological predication, the problem of divine hiddenness, and religious diversity. Same course as PHIL 2593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 2743 Religious Perspectives on Food and Agriculture (H)
Description: The goal of this course is to understand the interconnected history of agriculture, food, and religion. We will explore related ancient religions and mythologies, the pastoral roots of many world religions, dietary rules in different religions, as well as contemporary ethical issues as seen through the lens of religion. Previously offered as REL 3743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3113 Asian Religions (GH)
Description: This course will examine the diverse histories, beliefs, and practices of major Asian religious traditions: Hinduism, Buddhism, Confucianism, Daoism, Shintoism, Shamanism, and modern-day religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3213 Judaism: History, Culture and Beliefs (H)
Description: This course will explore the development of Judaism beginning with its roots in Ancient Israelite religion, the early biblical tradition, and moving through Assyrian and Babylonian conquests, Diaspora, Hellenistic occupation, Roman occupation, Byzantium, the Middle Ages, the Holocaust, the establishment of the state of Israel, up to present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3223 Jesus: Teachings, History and Interpretation (H)
Prerequisites: REL 2023.
Description: This course will examine the teaching of Jesus, the historical context of the first century, and how Jesus' life and teachings have been interpreted through history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3243 Origins of the Christian Church (H)
Prerequisites: REL 2023.
Description: This course will examine the letters of Paul in their historical context, focusing especially on the early Christian communities that were their audience, and how these letters helped shape beliefs and practices before Constantine made Christianity the official religion of Rome.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3313 Islam: History, Culture and Beliefs (GH)
Description: This course will examine the history, culture and beliefs of Islam, from its seventh century origins to modern times.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3413 The Bible and Contemporary Social Issues (H)
Description: This course addresses contemporary social issues through critical engagement with Christian textual and practical traditions. We will critically analyze how various biblical passages influence public discourse, political activity, and personal moral choices on current issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3423 Classic Christian Writings (H)
Description: A study of the primary source material from representative Christian authors scattered throughout two thousand years of church history, focusing on understanding the backgrounds from which the writings emerged, and grasping the writers' key ideas. Course previously offered as REL 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3513 Religious Experience (H)
Description: This course will explore the nature of religious experience and what role it plays within different traditions. Modes of religious experience to be explored range from meditation and prayer to conversion experiences and mystical states of consciousness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3523 Gender and Religion Across Cultures (H)
Description: This course explores the interconnectedness of gender, religion.and culture both locally and globally. We will critically analyze how religious ideas, events, texts and traditions inform individual identities, gender discourse, gender roles, as well as issues of power, privilege and oppression within different religious communities around the world. Same course as GWST 3523 and GEOG 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3543 Religion, Race and Social Justice (DH)
Description: This course examines the role of religion in the history and understanding of race, as well as how religion has been leveraged in relation to challenges of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3573 The Religions of Native Americans (DH)
Prerequisites: REL 1103.
Description: Selected tribal worldviews, belief systems and religious ceremonies as depicted in oral traditions, songs, and literature. Emphasis on Northern and Southern Plains Indians.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

REL 3613 Global Christianity (GH)
Description: This course examines the varied expressions of the Christian tradition across the world, including Africa, Asia, Europe, the Pacific, the Caribbean, and the Americas. While there are points of continuity within and across Christian communities, we focus our attention on its contemporary international diversity, as communities across the globe interpret and practice the Christian faith as shaped by their varied geographical, historical, social, political, economic and cultural contexts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 3623 Magic, Witchcraft, and the Occult (H)
Description: This course will examine the historical and cultural contexts that have shaped various portrayals of magic and witchcraft. We will consider how the supernatural worldviews underlying these portrayals related to both more traditional religious worldviews as well as the ways in which representations of the supernatural serve as vehicles for a culture's hopes and fears.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3643 Cults, Conspiracies, and Contemporary Religious Movements (H)
Description: This course will examine recent religiously-themed cults and conspiracy theories as well as various new Christian and Non-Christian religious movements in North America, focusing on those that tend to be seen as outside mainline traditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 3713 Religion, Culture and Society
Prerequisites: REL 1103, ANTH 2353, SOC 1113.
Description: An introduction to the scientific study of religion. Religious activity in both tribal and technological societies studied in the light of contemporary interpretations of culture and of social behavior. Same course as SOC 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4033 Religion in Early America (H)
Description: A study of religious life and its history in early America, beginning with its earliest European settlers, Native Americans, and continuing through the 1800s. Same course as HIST 4633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4050 Studies in Religion
Description: Independent studies, seminars and courses on selected topics in religion. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4113 The World of Islam: Cultural Perspectives (GH)
Description: The cultural heritage of the world of Islam explored through its expression in the art, architecture, and literature of the Muslim peoples.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4213 Understanding Global Islam (GH)
Description: A study of the history of Islam starting from Prophet Muhammad to the spread of the Islamic Empire. How Islam moved from Arabia to the world. Introduction to the Islamic divisions, where they are now, why they are similar and different in terms of laws, schools, countries, literature, sciences, Arabic script, the Shia, the Sunna, and different Islamic countries' practices. Also, debatable issues on Muslim women in American and other countries and why those are different from others.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4223 Religion and Conflict in the Middle East (GH)
Description: This course will explore the religions of the Middle East, focusing on how they have shaped the region's recent history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

REL 4330 Seminar in Biblical Studies
Prerequisites: Two courses in Biblical studies.
Description: Selected topics in the academic study of the Bible. Offered for fixed credit, 3 credit hours, maximum of 9 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Arts & Science

REL 4423 Death and the Afterlife (H)
Description: This course will explore and critically analyze the varying perspectives on death and the afterlife as seen across world religions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4513 Literary Art in the Bible
Description: This course will explore literary devices (foreshadowing, allegory, symbolism, etc) and how they are implemented in biblical texts, The Bible will be the primary focus, but comparative texts will be used to build an understanding and recognition of literary devices. We will examine the texts and their history on their own terms, rather than promote a particular religious or non-religious viewpoint. Same course as ENGL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science

REL 4613 Women in the Bible (H)
Description: This course will examine the stories about and portrayals of women in the Bible. We will explore what the biblical authors have to say about women within their cultural contexts and how these portrayals have shaped how women are seen in Western society. By analyzing the portrayals of women in antiquity, the course will also provide conceptual tools to help students examine how gender has been understood in Western society. Same course as GWST 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4753 Muslim-Christian Relations (H)
Description: Exploration of commonalities and differences between Christianity and Islam, and the history of cooperation and conflict between Muslims and Christians, from Arabia in Muhammad's time to worldwide in the twenty-first century. Themes include mutual understanding and misunderstanding, conversion, rulers and subjects, discrimination, and dialogue. Same course as HIST 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

REL 4923 Visions of Apocalypse: Portrayals of the End-Time in World Religions (H)
Description: This course will examine the various portrayals of the Apocalypse from many religious and folklore traditions around the world. This course will also explore various contemporary portrayals of the Apocalypse ranging from malevolent emergent artificial intelligence to the zombie virus.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Arts & Science
General Education and other Course Attributes: Human Heritage & Cultures

Minors

- Religious Studies (REL), Minor (p. 1872)

Faculty

Richard J. Boles, PhD—Interim Director of Program and Associate Professor
Assistant Professor: Jin Young Kim, PhD
Teaching Associate Professors: Matthew Pereira, PhD; Justin Rice, MA
Teaching Assistant Professors: Glen Fairen, PhD; Dani Dempsey, PhD
Teaching Instructor: Jessica Doyle, MA

Religious Studies (REL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sarah Mutschelknaus, 101B MUR, 405-744-8197

Minimum Grade Point Average in Minor Coursework: 2.50
Total Hours: 18

Awarding of the Religious Studies minor is subject to course availability.

Code	Title	Hours
Minor Requirements		
Select 6 hours from the following:		6
REL 1103	Introduction to World Religions (HI)	
REL 2013	The Old Testament and its Study (H)	
REL 2023	The New Testament and Its Study (H)	
REL 2113	Religion in Film (H)	
REL 2413	Religion and the Body: Sports, Medicine and Sexuality (H)	
HIST 2343	Religion in America (DH)	
Select 3 hours upper-division non-Western religion from the following:		3
HIST 3503	Medieval Islamic History (H)	
PHIL 3943	Asian Philosophy (HI)	
PHIL 4943	Indian Philosophy	
PHIL 4953	East Asian Philosophy	
REL 3113	Asian Religions (HI)	
REL 3313	Islam: History, Culture and Beliefs (HI)	
REL 3573	The Religions of Native Americans (DH)	
REL 4113	The World of Islam: Cultural Perspectives (HI)	
REL 4213	Understanding Global Islam (HI)	
REL 4223	Religion and Conflict in the Middle East (HI)	
Select 9 upper-division hours with at least 6 hours of REL coursework and up to 3 hours from the following course options:		9
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3673	History of Northern Renaissance Art	
ART 3713	Early Medieval Art: Saints, Martyrs, Pagans (H)	
ART 3723	Court and Cloister: Medieval Art 1050-1400 (H)	
ART 3753	The Arts of Spain and the Spanish World (H)	
ART 4713	The Visual Culture of the Islamic World (HI)	
ENGL 3123	Mythology (H)	
ENGL 3183	Native American Literature (DH)	
ENGL 4200	Studies in Early American Literature	
ENGL 4600	Studies in Chaucer or Milton	
HIST 3013	Ancient Egypt and Israel (H)	
HIST 3043	From the Garden of Eden to Babylon (H)	
HIST 3203	The Medieval World, 500-1500 (H)	
HIST 3243	Renaissance, 1350-1517 (H)	
HIST 3253	Absolutism and Enlightenment, 1648-1789	
HIST 3363	Popular Religion in the West, 1300-1700 (H)	
HIST 3483	Reformation Europe, 1517-1648 (H)	
HIST 3583	Minorities and Diversity in the Middle East (H)	
HIST 3953	Earthly Powers: Politics and Religion in Modern Europe	
HIST 4403	Sorcerers, Saints and Heretics: Religion in the Medieval World (H)	
PHIL 3523	Medieval Philosophy (H)	
PHIL 3613	Philosophy of Religion (H)	
PHIL 3933	Creation and Evolution	
PHIL 4013	Perspectives on Death and Dying (H)	
SOC 3713	Religion, Culture and Society	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Sociology

Sociology is the scientific study of human society and social behavior. Sociologists study a broad array of social phenomena ranging from the dynamics of social interaction to the composition and workings of entire societies.

The diversity of the faculty is reflected in the many different types of undergraduate and graduate courses offered. Topics include environment; criminology and criminal justice; law and society; juvenile delinquency; social problems; social movements; social inequality; social psychology; race and ethnicity; gender; religion; and family. Students gain mastery of knowledge in topical areas as well as in the methods of social research, enabling them to pursue professional positions in a variety of occupational fields. Students at the graduate level may pursue the MS or PhD in Sociology.

In addition to a general Sociology degree, the Department of Sociology offers a variety of BA and BS degree options for students hoping to specialize their education. With concentrations in anthropology, criminology and criminal justice, environment and society, and social services, students can tailor their Sociology degree for their future career field. For those students interested in pursuing professional degrees, the Department of Sociology also offers Pre-Med and Pre-Law options.

The general Sociology degree provides students with a strong foundation in sociological theory and methods while also allowing flexibility for interdisciplinary exploration of society and social behavior. Students seeking professional degrees can further specialize their degree with BS options in both Pre-Medical Science and Pre-Law.

A concentration in Anthropology familiarizes students with the methods and principles of cultural anthropology, archaeology, and biological anthropology. While studying the history of humans and culture, engaging courses and opportunities for hands-on experience prepare students to enter both academic and nonacademic careers.

Our Criminology and Criminal Justice students are well prepared for both academic and nonacademic careers related to crime, criminal behavior, law enforcement, the courts, and corrections. A wide variety of course offerings provide students the opportunity to study topics such as the criminal justice system, drugs and drug policy, juvenile delinquency, and gangs and society.

The Environment and Society degree introduces students to the critical relationship among humans, society, and the environment. Course offerings focus on topics such as environmental hazards and disasters, environmental inequality, and technology, preparing students for future careers in environmental law, government, nonprofit, or academics.

Concentrating in Social Services gives students an opportunity to study specific communities, group trends, and public service. With course offerings such as Sociology of Families, Sociology of Health and Illness, and Social Psychology, students are provided a foundation for careers in both public service and academia.

Courses

ANTH 1353 Introduction to Anthropology (S)
Description: Explores the holistic dimensions of anthropology by introducing the four fields that comprise the discipline: cultural anthropology, linguistics, archaeology, and biological anthropology. Examines the content of each field and their collective contribution to the understanding of humanity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 2353 Introduction to Biological Anthropology (N)
Description: Introduction to human biological evolution, including genetics, paleoanthropology, primatology, and osteology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Natural Science Reasoning

ANTH 2883 Introduction to Archaeology (S)
Description: A general introduction to the methods of study of archaeology. Understanding the development of prehistoric cultures as adaptive responses to changing natural and social environments from early Paleolithic to emergence of urban civilizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 3353 Cultural Anthropology (GS)
Description: Introduction to culture, various subdisciplines of cultural anthropology, anthropological concepts, and capsule ethnographies of assorted ethnic groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ANTH 3443 Peoples of Mesoamerica (GS)
Description: Modern indigenous peoples of Mexico and Central America. Examination of contemporary communities and modern social and cultural practices understood from a historical perspective, leading to an appreciation of regional similarities and diversity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ANTH 3990 Fieldwork in Anthropology
Prerequisites: Consent of instructor.
Description: Instruction through ethnographic or archaeological field techniques by participation in a field program. Topics subject to change from year to year depending upon the type of field program offered or available. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Lecture: 1-8 Contact: 1-8
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

ANTH 4123 Archaeology of North America (S)
Description: Factors influencing the initial peopling of North America, the spread and diversification of hunting and gathering economies, the rise of agricultural systems and emergence of extensive and complex political units.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 4223 The Aztec Empire (H)
Description: Society and Culture of the Aztecs of Mesoamerica. Overview of preceding civilizations, analysis of imperial strategies, social organization, religion, and other topics culminating in the Spanish conquest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Human Heritage & Cultures

ANTH 4443 Oklahoma Archeology (S)
Description: Surveys social and cultural development of Native peoples of Oklahoma from Paleoindian hunting adaptations to villagers encountered by early Europeans. Using archaeological investigations examines diversity of social and cultural adaptations to various environments of Oklahoma, including development of complex societies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

ANTH 4990 Special Topics in Anthropology
Prerequisites: Consent of instructor.
Description: Directed readings or research on significant topics in anthropology. May not be used for degree credit with ANTH 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology

ANTH 5243 Globalization and Culture
Prerequisites: Admission to Graduate College and International Studies.
Description: Critical assessment of 20th century social scientific theories of development culminating in current theories of globalization. Exploration of capitalism's antecedents, origin, and proliferation. Evaluation of global inequality from a cross-culture perspective. Utility of anthropological theories of culture, ideology and hegemony in assessing local responses to globalization. No credit for students with credit in INTL 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

ANTH 5990 Advanced Problems and Issues in Anthropology
Prerequisites: Consent of instructor.
Description: Directed readings or research on significant topics in anthropology. May not be used for Degree Credit with ANTH 4990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 1113 Introductory Sociology (S)
Description: Coming to terms with the requirements for living in a complex social world. Sociological concepts used to assist students in understanding the social influences in day-to-day life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2113 Introduction to Criminal Justice (S)
Description: This introductory course provides an overview of the U.S. criminal justice system. Some of the topics covered include police and corrections officers, prosecutors, defense attorneys, and judges. While a variety of societal responses to adult and juvenile crimes are discussed, this course primarily focuses on the formal responses of law enforcement, the courts, and corrections. Societal goals of punishment are covered as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2123 Social Problems (DS)
Description: Exploration in selected social issues in contemporary American society, such as deviance, poverty, sexism, racism and ageism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 2213 Gangs and Society (S)
Description: This course provides an overview of gangs as social phenomena. Gangs of particular interest include youth gangs, urban/rural gangs, street gangs, prison gangs, military gangs, and outlaw motorcycle gangs. The course additionally analyzes how socially-constructed group characteristics (i.e., race, class, gender and ethnicity) relate to gang membership. U.S. street and prison gangs receive extensive coverage. Social alternatives to gangs are discussed as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 2233 Building Partnerships through Policing
Description: The course explores the fundamentals of policing, introducing students to important concepts in and practices related to policing with particular focus on the college setting. This course is aimed at students considering a law enforcement career or interested in learning more about policing. Part of OSUPD's mission is to educate students about how we police the community. Applying both theoretical knowledge with practical application introduces the realities faced by modern law enforcement. By taking this course, students will gain an introspective, applied perspective of law enforcement. Students will be required to complete a release waiver that allows them to participate in some of the practical skills illustrated throughout the course, including a ride-along with an OSUPD officer and interacting with the firearms simulator.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 2243 Sociology of Drugs
Description: Why do individuals use drugs? Why are some substances criminalized and not others? What sociocultural factors determine how drugs are defined and categorized? What is the history of U.S. drug policy and how has it changed? What responses are effective in controlling drug use and abuse? This course answers these questions and more through sociological literature, case studies, film and popular media, and class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 2890 Honors Experience in Sociology
Prerequisites: Honors Program participation and concurrent enrollment in a designated SOC course.
Description: A supplemental Honors experience in Sociology to partner concurrently with designated Sociology course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 3113 Theoretical Thinking in Sociology
Prerequisites: Six credit hours of sociology, including SOC 1113.
Description: Sociological theory in three broad areas: the emergence of social theory, the major schools of social theory and the relevance of theory to sociological research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3133 Racial and Ethnic Relations (DS)
Description: This course examines cause and dimensions of racial inequalities in American society, with special emphasis on intersectional, social psychological, organizational, and institutional processes. Previously offered as SOC 2133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 3153 Sociology of Sport (S)
Description: Application of sociological principles, theories, and methods to the understanding of sport as a social institution. Topics such as the social organization of sport, relations with other institutions such as education, economy, politics, family and religion, deviance in sport, inequality, gender, and race in sport, and the future of sport are covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3223 Social Psychology (S)
Description: Social basis of personality development and behavior, including symbolic environment, self and group motivation, attitudes and opinions, and social roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3323 Collective Behavior and Social Movements
Description: Analyzes panics, crazes, riots and social movements emphasizing institutional and social psychological origins and consequences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3333 Policing and Society (S)
Description: This course explores the social institution of policing. Extensively covered are the relationships between police agencies, agents, and practices and social groups (based on race, class, gender, sexual identity/orientation, age, disability, and other classifications) and policies (e.g., War on Drugs) in the United States. Additional course topics include the roles of police, police patrol, police discretion, police use of force, and community policing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 3343 Technology and Society
Description: Exploration of various aspects of the relationship between society and technology. Analysis of arguments about the role of technology in society. Examination of the social contexts within which technology is created and discussion of the mechanisms and processes through which technology is embraced or discarded, such as peer review, politics, religion, and legal frameworks. Previously offered as SOC 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3423 Urban Sociology
Description: Urbanization as a worldwide process. The demography and ecology of cities and metropolitan regions. Urban planning and future development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3523 Juvenile Delinquency (DS)
Description: Juvenile delinquency behavior in relation to family, school, church, peers, community and institutional structures. The extent of delinquent expressions, varieties of delinquency, comparative international perspectives and new trends of females in delinquency and gang behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 3713 Religion, Culture and Society
Prerequisites: Recommended: SOC 1113, ANTH 2353, REL 1103.
Description: An introduction to the scientific study of religion. Religious activity in both tribal and technological societies studied in the light of contemporary interpretations of culture and of social behavior. Same course as REL 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3890 Advanced Honors Experience in Sociology
Prerequisites: Honors Program participation and concurrent enrollment in a designated SOC course.
Description: A supplemental Honors experience in Sociology to partner concurrently with designated upper-division SOC course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 3953 Applied Sociology
Prerequisites: Sociology majors or consent of instructor or adviser.
Description: Application of sociological theory and methods to various job situations. Preparation for field experience in a variety of work settings. Previously offered as SOC 3952.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 3993 Sociology of Aging (DS)
Description: Sociological perspectives on aging, including the analysis of the social behaviors across all stages of the life course from birth to death.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 4023 Juvenile Corrections and Treatment Strategies
Prerequisites: SOC 3523 or SOC 4333.
Description: The juvenile justice system, emphasizing the juvenile court, diversion and youth service bureaus as well as the more traditional training schools and foster homes. Experimental treatment strategies with institutionalized delinquents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4033 Comparative Perspectives of Criminal Justice Systems (GS)
Description: Study of criminal justice systems in different nation states and culture context from a different comparative perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SOC 4043 Gender and Work (DS)
Description: Consideration of unpaid, paid and volunteer work and gender differences. Linkages between economy, work, and family with examples from United States and less developed countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Diversity, Society & Human Behavior

SOC 4103 The Death Penalty in America (S)
Description: This course is designed to examine problems and issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, how the various jurisdictions (state and federal) deal with capital cases, the comparative costs of incarceration and execution, miscarriages of justice in capital cases and how the criminal justice responds to these issues. Same course as AMST 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4133 Social Research Methods
Prerequisites: SOC 1113. Past completion of or concurrent enrollment in SOC 3113.
Description: Applying sociological theory to designing quantitative and qualitative research; methods of data collection, processing and analysis; basic skills in computer analysis of social data. Research project included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4153 Sociology of Health and Illness
Description: Critically analyzes the social production of disease and illness in modern society from a sociological perspective. Examines the social organization of Medicare care, including critical issues affecting healthcare and health insurance in the United States. Focuses on the meanings and experiences of illness, as well as on contemporary critical debates such as environmental and health, bioengineering, and bioethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4213 Sociology of Sexualities (S)
Description: Sociological aspects of sexual behavior, attitudes and belief systems in society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4243 Quantitative Methods in Sociology
Prerequisites: SOC 1113, SOC 3113, SOC 4133.
Description: Strategies and procedures in the analysis of quantitative sociological data, including the use of statistical computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4313 Sociology of Law
Description: Law has been studied from different perspectives. In this course, we will focus on issues concerning the relationship between law, legal institution, and society. Issues such as the relationship between law and social change, the origins of law, the integrative function of law, law and social conflict, legal profession, and rationales of punishment and penal policies are explored through classical and contemporary sociological theories. In addition, we will consider the role of law and legal institution in reinforcing and changing social class, gender, and race inequalities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4333 Criminology (S)
Description: Summary of sociological and psychological research pertaining to crime causation and crime trends. Modern trends in control and treatment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4383 Social Stratification (S)
Description: Systems of class and caste, with special attention to the United States. Status, occupation, income, and other elements in stratification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4433 Environmental Sociology (S)
Description: Critical assessment of the social causes and consequences of problems with resource scarcity and environmental degradation. Environmental problems viewed as social problems, requiring an understanding of the structural conditions producing environmental problems and inhibiting resolutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4453 Environmental Inequality (S)
Prerequisites: SOC 1113.
Description: Considers the connection between environmental problems and race/ethnicity and class inequality. Focuses on environmental justice/equity, social movements, health, policy and risk at the local, national and global levels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4473 Oklahoma Environmental Sociology
Description: Critical assessment of the social causes and consequences of environmental problems in Oklahoma, both historical and contemporary. Examines the Land Run, the Dust Bowl, the Oil Boom, land ownership and use patterns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4493 Sociology of Environmental Hazards and Disasters
Prerequisites: SOC 3113 or instructor permission.
Description: Explores societal dimensions of environmental hazards and disasters, emphasizing disaster theory and research, key issues in the sociological study of environmental hazards and disasters, such as social impacts, social vulnerability, and community development and resilience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4533 World Population Problems
Description: Fertility, mortality and migration, and other factors related to population size, density, and composition; the population explosion, worldwide famine, birth control, and other serious social issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4573 Victimology
Description: This course combines various academic disciples to introduce the field of Victimology. The course represents an overview of the Victimology field; courts, victim services, victimization, and personnel issues. Students use the on- line and reading material to build a framework for understanding the wide field of Victimology together with victim issues and career opportunities. Same course as PSYC 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4643 Sociology of Gender (S)
Description: Explores the social organization of gender from diverse theoretical and empirical perspectives using a global experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4653 Gender and the Middle East (GS)
Description: An overview of gender-related issues in the Middle East and North African countries is provided to bridge cultures and build understanding. Specific attention is given to issues of women and how they are connected to changes in culture, economics, politics and society. May not be used for degree credit with SOC 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SOC 4663 Undergraduate Capstone Seminar in Sociology
Prerequisites: Majors; senior standing; SOC 3113, SOC 4133, SOC 4243.
Description: Concluding course for Sociology majors. Application of the skills, knowledge and expertise acquired in Sociology, including critical thinking, writing, theory and methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4723 Sociology of Families (S)
Description: The family as a social institution and relationship between family and other institutional structures and systems, including work and the economy, education, government and law, health care, and the media. Previously offered as SOC 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4733 Criminal Behavior Analysis
Prerequisites: SOC 3523 or SOC 4333.
Description: This course combines various academic disciplines toward a behavioral examination of the violent criminal offender. By examining the crime scene from a behavioral perspective, the psychodynamics of the offender, the sociological forces, and the social psychological dimensions of victim-offender interactions are combined for a more holistic understanding of the violent offender.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4743 Criminalistics: Introduction to Forensic Sciences
Prerequisites: SOC 3523 or SOC 4333.
Description: Criminalistics or forensic sciences involve the application of physical and behavioral sciences to social order or more specifically, the relationship between science and law. This course introduces the student to the various aspects of forensic examinations of violent criminal behavior. By examining modern techniques of crime scene analysis, the student learns how theory and technological development impact our social concepts of law and justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4753 Advanced Forensics
Prerequisites: SOC 3523 or SOC 4333 and SOC 4743.
Description: Forensic sciences involve the application of physical and behavioral sciences to social order and law. This course advances students' understanding of examinations of violent criminal behavior. Students gain awareness of the interdependent relationships of various physical and social science disciplines and how these issues are operationalized at an actual crime scene.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4923 Sociology of Punishment (S)
Description: An overview of punishment across time and place. Topics surveyed include theories of punishment; formal and Informal social control; and corrections, including Its consequences and alternatives. Special topics may be examined when time permits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology
General Education and other Course Attributes: Society & Human Behavior

SOC 4950 Current Topics in Sociology
Description: Special topics in sociology; topics vary from semester to semester. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Undergraduate
Schedule types: Lecture
Department/School: Sociology

SOC 4990 Exploration of Sociological Issues
Prerequisites: Consent of instructor.
Description: Examines sociologically significant topics and issues. May not be used for degree credit with SOC 5990. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology

SOC 4993 Senior Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a senior faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in sociology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Sociology
General Education and other Course Attributes: Honors Credit

SOC 5000 Thesis in Sociology
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 5001 Graduate Proseminar
Prerequisites: Admission to Sociology graduate program.
Description: Introduction and orientation to the graduate program in the Department of Sociology.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5013 Creative Component in Sociology
Description: A guided course serving as the final requirement for graduate students in the Department of Sociology's Master of Science degree, non-thesis option.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5063 Seminar in Social Inequality and Stratification
Prerequisites: Graduate standing.
Description: Provides comprehensive overview and analysis of theories and research in social inequality and social stratification. Includes: study of classical and contemporary theories, development of research in the field, dynamics of inequalities and current and future perspectives.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5113 Classical Sociological Theory
Prerequisites: SOC 3113 or equivalent.
Description: Major trends in sociological thought. The emergence of sociological theory in Europe and America.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5123 Contemporary Sociological Theory
Prerequisites: SOC 3113 or equivalent.
Description: Critical examination of significant theoretical formulations, 1920 to the present. Relation between theoretical development and current research emphasis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5213 Techniques of Population Analysis
Prerequisites: Graduate standing.
Description: Examination of primary techniques and statistics employed in studies of population characteristics. Examination of sources of demographic data, methods employed in the collection and analysis of data on population characteristics, composition and change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5223 Culture, History and World Systems
Prerequisites: Admission to Graduate College and international studies program.
Description: The modern world system and its new social formations resulting from increasing globalization. Examination of cultural, socio-economic, and political changes in developed and developing societies. Modern societies, their historical developments, the cultural politics of difference, and the re-emergence of ethnic groups worldwide. Existing theoretical models of change for profit and non-profit organizations. Same course as INTL 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5243 Social Research Design
Prerequisites: SOC 3113; SOC 4133 or equivalent; graduate standing.
Description: Techniques in design, data collection, and interpretation of data for sociological research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5263 Quantitative Analysis of Social Research
Prerequisites: SOC 3133; SOC 4133 or equivalent; graduate standing.
Description: Advanced techniques in sociological research and data analysis focusing on the formulation of substantive research questions and application of a variety of research procedures to answer such questions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5273 Qualitative Research Methods
Description: Examination of ethnographic studies and implementation issues connected with qualitative research. Research project required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5283 Advanced Qualitative Sociological Research
Prerequisites: SOC 5273 or consent of instructor.
Description: Intensive examination of advanced qualitative research in sociology. Requires students to design and implement their own qualitative sociological research projects under the guidance of the instructor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5323 Seminar on Collective Behavior and Social Movements
Prerequisites: Graduate standing.
Description: Examination of major theoretical and empirical approaches employed in the study of social movements. Exploration of problems on the nature and current theories of social movements including individual versus group approaches. Grassroots resistance, community organizing, political conflicts, and revolutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5333 Global Population and Social Problems
Prerequisites: Graduate standing.
Description: Study in world, regional and national population characteristics, changes and associated problems and cultural influences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5343 Sociology of Law and Punishment
Description: Advanced study in the sociology of law and punishment. Focus on both classical and contemporary sociological and legal research. An interdisciplinary and comparative approach is also emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5463 Seminar in Environmental Sociology
Description: Critical overview of contemporary developments in environmental sociology. Environment concern, disasters, health issues, risk assessment, and environmental conflict.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5473 Seminar on the Contemporary Environmental Movement
Description: Critical overview of contemporary theory and research on the environmental movement. Analysis of crucial movements dynamics, including historical development, central organizing themes, strategies and tactics, and movement activities, environmental health movements, and transnational movement campaigns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5493 Seminar in Environmental Justice
Description: Considers racial, class and equity implications of environmental degradation and regulation. Includes discussion of controversies over the siting of hazardous facilities in urban and rural areas, the extraction of resources from native lands, national and transnational export of toxic waste to the South and the development of a distinct environmental justice movement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5553 Seminar in Medical Sociology
Description: Advanced study in the sociology of medicine, including the doctor-patient relationship, the social meanings of health and illness, epidemiology, health care delivery, and the medicalization of American society. Analysis of the sociology of organic illness and mental illness using readings from both classical and contemporary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5573 Seminar on Victimology
Description: Critical overview of contemporary theory and research on victimology. Relationships between victim and offenders, social institutions such as media, police, business, advocacy groups, and various social movements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5583 Comparative Criminal Justice Systems
Description: Examines crime and criminal justice in a global world. Compares the current major legal traditions with the U.S. criminal justice system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5593 Seminar on Organization and Administration in Law Enforcement and Society
Description: Critical overview of contemporary theory and research on administration in law enforcement and society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5643 Gender and Society
Prerequisites: Graduate standing.
Description: This course provides an overview of current theoretical and empirical research in the sociology of gender. Topics include (1) how best to theorize, conceptualize, and analyze gender; (2) how gender is socially constructed and enacted in individuals' lives; (3) how gender intersects with other identities (e.g., race, social class, sexuality) to shape our experiences and life chances; and, (4) how gender is embedded within institutional processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5653 Gender and the Middle East
Description: An overview of gender-related issues in the Middle East and North African countries is provided to bridge cultures and build understanding. Specific attention is given to issues of women and how they are connected to changes in contemporary culture, economics, politics, and society. May not be used for degree credit with SOC 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5663 Seminar in Race and Ethnicity
Prerequisites: Graduate standing.
Description: Analysis of the dynamics of intercultural and intergroup relations in America with special emphasis on the examination of major conceptual perspectives that have characterized the study of race and ethnicity in American life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5763 Contemporary Organizational Theory
Prerequisites: Graduate standing.
Description: Advanced study of contemporary theories used to explain, predict and understand organizations. Behavior of populations of organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5793 Seminar on Organizational Deviance
Description: Overview of contemporary theory and research on organizational deviance. Defining acceptable risk. Organizational structures, processes, and standard operating procedures that produce mistake, misconduct and disaster.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5813 Myths and Realities of Organizational Change
Prerequisites: Graduate standing.
Description: A critical examination of the various theories and models that address change and improvement processes in complex organizations. Theoretical and methodological validity of assumptions underlying such organizational theories and models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5950 Seminar in Sociology
Prerequisites: Graduate standing.
Description: Special seminar; topics vary from semester to semester. Offered for variable credit, 1-3 credit hours, maximum of 25 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 5980 Internship
Description: Supervised field placement. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 5990 Advanced Problems and Issues in Sociology
Prerequisites: Consent of instructor.
Description: Group enrollment or individual research enrollment as needed. Graduate level analysis of special problems and issues in sociology not covered in other department offerings. May not be used for degree credit with SOC 4990. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6000 Dissertation
Description: Offered for variable credit, 1-12 credit hours, maximum of 18 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6213 Theory of Social Structure
Prerequisites: Six hours of undergraduate sociology or equivalent.
Description: Relationship between human thought and the social context within which it arises.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6390 Seminar in the Family, Marriage and Male-Female Roles in American Sociology
Description: Analysis of published research in sociology of family, marriage and male-female roles and relationships with special emphasis on American society. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6460 Advanced Studies in Environmental Sociology
Prerequisites: SOC 5463 or consent of instructor.
Description: Intensive examination of selected topics in environmental sociology. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

SOC 6463 International Issues in Environmental Sociology
Prerequisites: Graduate standing.
Description: Advanced study of the international context of environmental issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6493 Sociology of Disaster
Description: Critical examination of contemporary theory and research on the social aspects of disasters. Social system response to large-scale crises. Vulnerability, warnings, preparedness, recovery, mitigation, and sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6653 Seminar in Social Psychology
Description: Development and critical analysis of theory and research in social psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6753 Seminar in Deviance and Criminology
Description: Current research and theory in criminology, penology and deviance in modern society. Previously offered as SOC 6750.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6763 Seminar in Theory of Criminal Behavior Analysis
Description: Critical overview of contemporary theory and research on criminal behavioral analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6853 Seminar in Symbolic Interactionism
Description: Symbolic interactionism, a major contemporary school of thought in sociology and psychology, emerging from philosophical pragmatism with special emphasis on the thoughts of George H. Mead and its derivatives including dramaturgy, existential social psychology, and phenomenological.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Sociology

SOC 6950 Seminar in Social Gerontology
Description: A theoretical and practical examination of the sociological implications, both individual and societal, of an aging population. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Sociology

Undergraduate Programs

- Sociology, BA (p. 1888)
- Sociology, BS (p. 1891)
- Sociology: Anthropology, BA (p. 1894)
- Sociology: Anthropology, BS (p. 1897)
- Sociology: Criminology and Criminal Justice, BA (p. 1900)
- Sociology: Criminology and Criminal Justice, BS (p. 1903)
- Sociology: Environment and Society, BA (p. 1906)
- Sociology: Environment and Society, BS (p. 1909)
- Sociology: Pre-Law, BS (p. 1912)
- Sociology: Pre-Medical Science, BS (p. 1915)
- Sociology: Social Services, BA (p. 1918)
- Sociology: Social Services, BS (p. 1921)

Graduate Programs

The Department of Sociology offers the Master of Science degree with thesis or non-thesis (terminal degree) options, and the Doctor of Philosophy degree. Programs are designed to prepare students for appointments to the faculty of colleges and universities, to work in private industry and social service agencies, and to be employed in research positions in business and/or government. The Department offers concentrations in Criminology and Deviance, Environmental Sociology, Social Inequality, Social Movements, and Social Psychology. Excellent training and research opportunities are provided for students in quantitative and qualitative social science research methods and theory, further enhancing opportunities in a wide array of career fields.

Degree Requirements

The MS in sociology thesis option requires a minimum of 31 hours of coursework. The MS in sociology non-thesis option requires 32 hours of coursework. For students pursuing the PhD, a minimum of 90 semester credit hours beyond the baccalaureate, or 60 hours beyond the master's degree, is required. Each PhD student is required to take six hours of sociological theory, and 15 hours of research methods/statistics. Detailed information on each program is available on the Departmental website.

Minors

- Anthropology (ANTH), Minor (p. 1884)
- Criminology and Criminal Justice (CRCJ), Minor (p. 1885)
- Social Justice (SOJU), Minor (p. 1886)
- Sociology (SOC), Minor (p. 1887)

Faculty

Tamara Mix PhD—Dresser Professor and Department Head
Regents Professors: Riley Dunlap, PhD (emeritus); Duane Gill, PhD (emeritus); Ken Kiser, PhD (emeritus); David Knottnerus, PhD (emeritus)
Professors: Andrew Fullerton, PhD; Bin Liang, PhD; Mike Long, PhD; Tamara Mix, PhD; Jean Van Delinder, PhD; Kelley Sittner, PhD
Associate Professors: Jonathan Coley, PhD; Heather McLaughlin, PhD; Stephen Perkins, PhD; Rachel Schmitz, PhD; Monica Whitham, PhD
Assistant Professors: Daniel Alvord, PhD; Katie Constantin, PhD; Alex Diamond, PhD; Jared Fitzgerald, PhD; Nick Heiserman, PhD; Ashley Railey, PhD; Adam Roth, PhD; Corinne Schwarz, PhD
Teaching Assistant Professors: Peyman Hekmatpour, PhD; Jericho McElroy, PhD; Jacob Mwita, PhD

Anthropology (ANTH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

427 Social Sciences and Humanities, 405-744-6114

Minimum Grade Point Average in Minor Coursework: Minimum GPA 2.50 in minor and minimum grade of "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
ANTH 2353	Introduction to Biological Anthropology (N)	3
ANTH 3353	Cultural Anthropology (IS)	3
Select 3 hours of any level ANTH		3
Select 9 hours upper-division ANTH		9
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Criminology and Criminal Justice (CRCJ), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA: 2.50
Total Hours: 18

Code	Title	Hours
Course Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2113	Introduction to Criminal Justice (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
Select nine hours from the following:		9
SOC 2213	Gangs and Society (S)	
SOC 2233	Building Partnerships through Policing	
SOC 2243	Sociology of Drugs	
SOC 3333	Policing and Society (S)	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (IS)	
SOC 4103	The Death Penalty in America (S)	
SOC 4313	Sociology of Law	
SOC 4333	Criminology (S)	
SOC 4923	Sociology of Punishment (S)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Social Justice (SOJU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum grade and/or GPA: 2.50 GPA
Total Hours: 18

Code	Title	Hours
Course Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
SOC 3113	Theoretical Thinking in Sociology	3
Select nine hours of the following:		9
POLS 2313	Social Justice Politics (D)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3993	Sociology of Aging (DS)	
SOC 4153	Sociology of Health and Illness	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4643	Sociology of Gender (S)	
SOC 4723	Sociology of Families (S)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Sociology (SOC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

427 Social Sciences and Humanities, 405-744-6114

Minimum Grade Point Average in Minor Coursework: Minimum GPA 2.50 in minor with minimum grade of "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
Select 3 hours of any level SOC		3
Select 9 hours of upper-division SOC		9
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Sociology, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 3353	Cultural Anthropology (GS)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Select 15 hours of upper-division SOC/ANTH		15
Select 9 hours of upper-division courses (not SOC/ANTH)		9
Hours Subtotal		**45**
Electives		
Select 13 hours		13
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**13**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**

a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.

b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.

c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).

e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**

a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.

b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.

c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
POLS 1113	American Government	3
Foreign Language III		3
General Education courses		6
	Hours	**15**
Spring		
Inequalities SOC course		3
Upper division SOC course		3
General Education courses		9
	Hours	**15**

Junior		
Fall		
SOC 4133	Social Research Methods	3
Upper division SOC course		3
Upper division Non-SOC/ANTH course		3
College and Elective courses		6
	Hours	**15**
Spring		
Inequalities SOC course		3
Upper division SOC course		3
Upper division Non-SOC/ANTH course		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
College and Elective courses		12
	Hours	**15**
Spring		
Upper division SOC courses		6
Upper division Non-SOC/ANTH course		3
College and Elective courses		4
	Hours	**13**
	Total Hours	**120**

Sociology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minumum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 3353	Cultural Anthropology (GS)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Select 15 hours of upper-division SOC/ANTH		15
Select 9 hours of upper-division courses (not SOC/ANTH) [1]		9
Hours Subtotal		**45**
Electives		
Select 22 hours. [1]		22
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.).		
Hours Subtotal		**22**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for these areas.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
POLS 1113	American Government	3
General Education courses		9
	Hours	**15**
Spring		
Inequalities SOC course		3
Upper division SOC course		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3

Upper division SOC course		3
Upper division Non-SOC/ANTH course		3
College and Elective courses		6
	Hours	**15**
Spring		
Inequalities SOC course		3
Upper division SOC course		3
Upper division Non-SOC/ANTH course		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
College and Elective courses		12
	Hours	**15**
Spring		
Upper division SOC courses		6
Upper division Non-SOC/ANTH course		3
College and Elective courses		4
	Hours	**13**
	Total Hours	**120**

Sociology: Anthropology, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		9
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
ANTH 1353	Introduction to Anthropology (S)	3
ANTH 2353	Introduction to Biological Anthropology (N)	3
ANTH 2883	Introduction to Archaeology (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
ANTH 3353	Cultural Anthropology (GS)	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 9 hours of the following		9
ANTH 3443	Peoples of Mesoamerica (GS)	
ANTH 4123	Archaeology of North America (S)	
ANTH 4223	The Aztec Empire (H)	
ANTH 4443	Oklahoma Archeology (S)	
Select 6 hours of upper-division SOC		6
Select 12 hours upper-division related courses of the following:		12
AMIS 4013	American Indian Sovereignty (D)	
ANTH 3990	Fieldwork in Anthropology	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3733	History of Latin American Art I	
ART 4603	History of Ancient Egyptian Art	
ART 4763	Native American Art and Material Culture	
BIOL 3113	Human Evolution (N)	
BIOL 3123	Human Heredity (N)	
ENGL 3183	Native American Literature (DH)	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4333	Studies in Native American Literature	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4303	Applications of the Global Positioning System in Field Research	
GEOG 4333	Remote Sensing	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	

HIST 3013	Ancient Egypt and Israel (H)	
HIST 3023	Ancient Greece (H)	
HIST 3043	From the Garden of Eden to Babylon (H)	
HIST 3453	Colonial Latin America (H)	
HIST 3593	Introduction to Museum and Cultural Studies (H)	
HIST 3793	Native American History (DH)	
HIST 3853	History of the North American Borderlands (DH)	
HIST 4063	Historic Preservation	
HIST 4093	Oral History: Theory and Methodology	
REL 3573	The Religions of Native Americans (DH)	
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3713	Religion, Culture and Society	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4643	Sociology of Gender (S)	
SOC 4653	Gender and the Middle East (GS)	
Hours Subtotal		**51**
Electives		
Select 7 hours		7
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour		
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
First Year Seminar		1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
ANTH 1353	Introduction to Anthropology (S)	3
ANTH 2353	Introduction to Biological Anthropology (N)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
	Hours	**15**
Sophomore		
Fall		
ANTH 2883	Introduction to Archaeology (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
POLS 1113	American Government	3
Foreign Language III		3
General Education course		3
	Hours	**15**
Spring		
ANTH 3353	Cultural Anthropology (GS)	3
Anthropology related coursework		3
General Education courses		8
	Hours	**14**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Upper-division Anthropology course		3
Anthropology related coursework		3
General Education courses		6
	Hours	**15**
Spring		
Upper-division Anthropology		3
Upper-division Sociology		3
Anthropology related coursework		3
Major and College Electives		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Upper-division Sociology		3
Major and College Electives		9
	Hours	**15**
Spring		
Upper-division Anthropology		3
Anthropology related coursework		3
Major and College Electives		9
	Hours	**15**
	Total Hours	**120**

Sociology: Anthropology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minumum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
ANTH 1353	Introduction to Anthropology (S)	3
ANTH 2353	Introduction to Biological Anthropology (N)	3
ANTH 2883	Introduction to Archaeology (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
ANTH 3353	Cultural Anthropology (GS)	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 9 hours of the following:		9
ANTH 3443	Peoples of Mesoamerica (GS)	
ANTH 4123	Archaeology of North America (S)	
ANTH 4223	The Aztec Empire (H)	
ANTH 4443	Oklahoma Archeology (S)	
Select 6 hours of upper-division SOC		6
Select 12 hours upper-division related courses from the following:		12
AMIS 4013	American Indian Sovereignty (D)	
ANTH 3990	Fieldwork in Anthropology	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
ART 3733	History of Latin American Art I	
ART 4603	History of Ancient Egyptian Art	
ART 4763	Native American Art and Material Culture	
BIOL 3113	Human Evolution (N)	
BIOL 3123	Human Heredity (N)	
ENGL 3183	Native American Literature (DH)	
ENGL 4073	Introduction to Sociolinguistics	
ENGL 4333	Studies in Native American Literature	
GEOG 3093	Historical Geography of North America to 1800 (H)	
GEOG 3243	Legal Geography of Native America, Sovereign Tribal Nations, and Indian Country (DS)	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4303	Applications of the Global Positioning System in Field Research	
GEOG 4333	Remote Sensing	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
HIST 3013	Ancient Egypt and Israel (H)	

HIST 3023	Ancient Greece (H)
HIST 3043	From the Garden of Eden to Babylon (H)
HIST 3453	Colonial Latin America (H)
HIST 3593	Introduction to Museum and Cultural Studies (H)
HIST 3793	Native American History (DH)
HIST 3853	History of the North American Borderlands (DH)
HIST 4063	Historic Preservation
HIST 4093	Oral History: Theory and Methodology
REL 3573	The Religions of Native Americans (DH)
SOC 3133	Racial and Ethnic Relations (DS)
SOC 3713	Religion, Culture and Society
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
SOC 4643	Sociology of Gender (S)
SOC 4653	Gender and the Middle East (GS)
Hours Subtotal	**51**
Electives	
Select 16 hours	16
May need to include 6 hours of a foreign language. See note 3.	
May need to include 6 hours upper-division general education outside major department (see note 2.c.).	
Hours Subtotal	**16**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be applied to degree requirements.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education Course		3
	Hours	**16**
Spring		
ANTH 1353	Introduction to Anthropology (S)	3
ANTH 2353	Introduction to Biological Anthropology (N)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
	Hours	**15**
Sophomore		
Fall		
ANTH 2883	Introduction to Archaeology (S)	3
SOC 3113	Theoretical Thinking in Sociology	3
POLS 1113	American Government	3
Foreign Language III		3
General Education Course		3
	Hours	**15**
Spring		
ANTH 3353	Cultural Anthropology (GS)	3
Anthropology related coursework		3
General Education Courses		8
	Hours	**14**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Upper-division Anthropology course		3
Anthropology related coursework		3
College and Major Electives		6
	Hours	**15**
Spring		
Upper division Anthropology course		3
Upper division Sociology course		3
Anthropology related coursework		3
General Education and College Electives		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Upper division Sociology course		3
College and Major Electives		9
	Hours	**15**
Spring		
Upper division Anthropology course		3
Anthropology related coursework		3
College and Major Electives		9
	Hours	**15**
	Total Hours	**120**

Sociology: Criminology and Criminal Justice, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematics Sciences		
(See Note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select six hours from:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Criminology and Criminal Justice		
SOC 2113	Introduction to Criminal Justice (S)	3
SOC 4333	Criminology (S)	3
Select 12 hours from (3 hours may be lower-division):		12
SOC 2213	Gangs and Society (S)	
SOC 2243	Sociology of Drugs	
SOC 3333	Policing and Society (S)	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	
SOC 4313	Sociology of Law	
SOC 4923	Sociology of Punishment (S)	
Select 12 hours of approved related courses. Recommended:		12
SOC 2233	Building Partnerships through Policing	
SOC 3223	Social Psychology (S)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3953	Applied Sociology	
SOC 4023	Juvenile Corrections and Treatment Strategies	
SOC 4103	The Death Penalty in America (S)	
SOC 4573	Victimology	
SOC 4733	Criminal Behavior Analysis	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
SOC 4753	Advanced Forensics	
EPSY 3213	Psychology of Adolescence	
PHIL 3843	Philosophy of Law (H)	

POLS 3983	Courts and Judicial Process (S)	
PSYC 3443	Psychopathology (S)	
PSYC 4143	Psychology and Law	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 7 hours.		7
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
HIST 1103	Survey of American History	3
ENGL 1213	Composition II	3
PSYC 1113	Introductory Psychology (S)	3
SOC 2123	Social Problems (DS)	3
Foreign Language II		3
	Hours	**15**
Sophomore		
Fall		
POLS 1113	American Government	3
SOC 3113	Theoretical Thinking in Sociology	3
Foreign Language III		3
General Education courses		6
	Hours	**15**
Spring		
SOC 2113	Introduction to Criminal Justice (S)	3
Inequalities SOC course		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Inequalities SOC course		3
Criminology & Criminal Justice courses		6
General Education course		3
	Hours	**15**
Spring		
SOC 4333	Criminology (S)	3
Criminology & Criminal Justice courses		6
Upper division General Education courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Criminology & Criminal Justice course		3
College and Elective courses		9
	Hours	**15**
Spring		
Criminology & Criminal Justice courses		9
College and Elective courses		5
	Hours	**14**
	Total Hours	**120**

Sociology: Criminology and Criminal Justice, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematics Sciences		
(See Note 2.b.)		9
Foreign Language		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in all SOC/ANTH courses 2.50 with a grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Criminology and Criminal Justice		
SOC 2113	Introduction to Criminal Justice (S)	3
SOC 4333	Criminology (S)	3
Select 12 hours form the following (3 hours may be lower division):		12
SOC 2213	Gangs and Society (S)	
SOC 2243	Sociology of Drugs	
SOC 3333	Policing and Society (S)	
SOC 3523	Juvenile Delinquency (DS)	
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	
SOC 4313	Sociology of Law	
SOC 4923	Sociology of Punishment (S)	
Select 12 hours of approved option-related courses.		12
SOC 2233	Building Partnerships through Policing	
SOC 3223	Social Psychology (S)	
SOC 3323	Collective Behavior and Social Movements	
SOC 3953	Applied Sociology	
SOC 4023	Juvenile Corrections and Treatment Strategies	
SOC 4103	The Death Penalty in America (S)	
SOC 4573	Victimology	
SOC 4733	Criminal Behavior Analysis	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
SOC 4753	Advanced Forensics	
EPSY 3213	Psychology of Adolescence	
PHIL 3843	Philosophy of Law (H)	

POLS 3983	Courts and Judicial Process (S)	
PSYC 3443	Psychopathology (S)	
PSYC 4143	Psychology and Law	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 16 hours		16
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
POLS 1113	American Government	3
PSYC 1113	Introductory Psychology (S)	3
General Education courses		6
	Hours	**15**
Spring		
SOC 2113	Introduction to Criminal Justice (S)	3
Inequalities SOC course		3
General Education courses		9
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Inequalities SOC course		3
Criminology & Criminal Justice courses		6
General Education course		3
	Hours	**15**
Spring		
SOC 4333	Criminology (S)	3
Criminology & Criminal Justice courses		6
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Criminology & Criminal Justice course		3
College and Elective courses		9
	Hours	**15**
Spring		
Criminology & Criminal Justice courses		9
College and Elective courses		4
	Hours	**13**
	Total Hours	**120**

Sociology: Environment and Society, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
HDFS 2113	Lifespan Human Development (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematics Sciences		
(See Note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of “C” in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours from:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Environment and Society		
SOC 3323	Collective Behavior and Social Movements	3
SOC 4433	Environmental Sociology (S)	3
SOC 4453	Environmental Inequality (S)	3
SOC 3343	Technology and Society	3
Select 18 hours from:		18
SOC 3223	Social Psychology (S)	
SOC 3423	Urban Sociology	
SOC 3953	Applied Sociology	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4493	Sociology of Environmental Hazards and Disasters	
SOC 4533	World Population Problems	
AGEC 3023	Farm to Fork	
AGEC 4503	Environmental Economics and Resource Development	
ECON 4913	Urban and Regional Economics	
ENVR 1113	Elements of Environmental Science (N)	
FDSC 2102	Regional Diversity in Food Production, Selection and Consumption (D)	
FEMP 3103	Introduction to Emergency Management (S)	
GEOG 2002	Global Sustainability (N)	
or GLST 2002	Global Sustainability (N)	
GEOG 2103	Global Perspectives (GS)	
or GLST 2103	Global Perspectives (GS)	

GEOG 3153	Conservation of Natural Resources (S)	
GEOG 3373	Health and Maps	
GEOG 4003	Natural Hazards and Society	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
or AMST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 4523	American Environmental History (H)	
NSCI 3543	Food and the Human Environment (GS)	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 7 hours		7
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**7**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
POLS 1113	American Government	3
PSYC 1113	Introductory Psychology (S)	3
Foreign Language II		3
	Hours	**15**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
HDFS 2113	Lifespan Human Development (S)	3
HIST 1103	Survey of American History	3
Foreign Language III		3
General Education course		3
	Hours	**15**
Spring		
SOC 3323	Collective Behavior and Social Movements	3
Inequalities SOC course		3
Environment & Society course		3
General Education courses		7
	Hours	**16**
Junior		
Fall		
SOC 4133	Social Research Methods	3
SOC 4433	Environmental Sociology (S)	3
Environment & Society courses		6
General Education course		3
	Hours	**15**
Spring		
SOC 4453	Environmental Inequality (S)	3
Inequalities SOC course		3
Environment & Society course		3
General Education courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Environment & Society course		3
College and Elective courses		9
	Hours	**15**
Spring		
SOC 3343	Technology and Society	3
SOC 4493	Sociology of Environmental Hazards and Disasters	3
College and Elective courses		7
	Hours	**13**
	Total Hours	**120**

Sociology: Environment and Society, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
HDFS 2113	Lifespan Human Development (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematics Sciences		
(See Note 2.b.)		9
Foreign Language		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA 2.50. Minimum GPA in all SOC/ANTH 2.50 with minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Environment and Society		
SOC 3323	Collective Behavior and Social Movements	3
SOC 4433	Environmental Sociology (S)	3
SOC 4453	Environmental Inequality (S)	3
SOC 3343	Technology and Society	3
Select 18 hours from the following:		18
SOC 3223	Social Psychology (S)	
SOC 3423	Urban Sociology	
SOC 3953	Applied Sociology	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4493	Sociology of Environmental Hazards and Disasters	
SOC 4533	World Population Problems	
AGEC 3023	Farm to Fork	
AGEC 4503	Environmental Economics and Resource Development	
ECON 4913	Urban and Regional Economics	
ENVR 1113	Elements of Environmental Science (N)	
FDSC 2102	Regional Diversity in Food Production, Selection and Consumption (D)	
FEMP 3103	Introduction to Emergency Management (S)	
GEOG 2002	Global Sustainability (N)	
or GLST 2002	Global Sustainability (N)	
GEOG 2103	Global Perspectives (GS)	
or GLST 2103	Global Perspectives (GS)	
GEOG 3153	Conservation of Natural Resources (S)	

GEOG 3373	Health and Maps	
GEOG 4003	Natural Hazards and Society	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
or AMST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 4523	American Environmental History (H)	
NSCI 3543	Food and the Human Environment (GS)	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 16 hours		16
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.		
Hours Subtotal		**16**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
PSYC 1113	Introductory Psychology (S)	3
POLS 1113	American Government	3
Foreign Language II		3
	Hours	**15**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
HIST 1103	Survey of American History	3
HDFS 2113	Lifespan Human Development (S)	3
General Education courses		7
	Hours	**16**
Spring		
SOC 3323	Collective Behavior and Social Movements	3
Environment & Society course		3
Inequalities SOC course		3
General Education courses		6
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
SOC 4433	Environmental Sociology (S)	3
Environment & Society courses		6
General Education course		3
	Hours	**15**
Spring		
SOC 4453	Environmental Inequality (S)	3
Environment & Society course		3
Inequalities SOC course		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Environment & Society course		3
College and Elective courses		9
	Hours	**15**
Spring		
SOC 4463	Technology and Society	3
SOC 4493	Sociology of Environmental Hazards and Disasters	3
College and Elective courses		7
	Hours	**13**
	Total Hours	**120**

Sociology: Pre-Law, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
PHIL 1313	Logic and Critical Thinking (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
See note 2.b.		9
Foreign Language		
See note 3.		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 3353	Cultural Anthropology (GS)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
SOC 3223	Social Psychology (S)	3
SOC 3523	Juvenile Delinquency (DS)	3
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	3
SOC 4313	Sociology of Law	3
SOC 4333	Criminology (S)	3
SOC 4923	Sociology of Punishment (S)	3
Select 9 hours of approved law related courses. 3 hours may be lower-division.		9
Recommended:		
AMIS 4013	American Indian Sovereignty (D)	
AMST 3333	Crime, Law and American Culture (S)	
ECON 2103	Introduction to Microeconomics (S)	
PHIL 3843	Philosophy of Law (H)	
POLS 3963	State Courts and the Bar	
POLS 4353	Administrative Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
PSYC 4143	Psychology and Law	
SPCH 3733	Elements of Persuasion (S)	
SPCH 4753	Intercultural Communication (G)	
SPCH 4793	Nonverbal Communication (S)	
Hours Subtotal		**48**
Electives		
Select 19 hours		19
May need to include 6 hours of a foreign language (see note 3)		

May need to include 6 hours upper-division general education outside major department (see note 2.c.)	
Hours Subtotal	**19**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
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   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
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3. **Foreign Language Proficiency**
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   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
PSYC 1113	Introductory Psychology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
	Hours	**16**

Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
SOC 3223	Social Psychology (S)	3
POLS 1113	American Government	3
HDFS 2113	Lifespan Human Development (S)	3
General Education course		3
	Hours	**15**
Spring		
PHIL 1313	Logic and Critical Thinking (Q)	3
SOC 3523	Juvenile Delinquency (DS)	3
SOC 4033	Comparative Perspectives of Criminal Justice Systems (GS)	3
Inequalities SOC course		3
General Education course		3
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
SOC 4313	Sociology of Law	3
Pre-Law related course		3
College and Elective courses		6
	Hours	**15**
Spring		
SOC 4333	Criminology (S)	3
Inequalities SOC course		3
College and Elective courses		9
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Pre-Law related course		3
College and Elective courses		7
	Hours	**13**
Spring		
SOC 4923	Sociology of Punishment (S)	3
Pre-Law related course		3
College and Elective courses		9
	Hours	**15**
	Total Hours	**120**

Sociology: Pre-Medical Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	4
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1515	Chemistry II (LN)	5
BIOL 1604	Animal Biology	4
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 3353	Cultural Anthropology (GS)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 21 hours of upper-division courses from the following:		21
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3223	Social Psychology (S)	
SOC 3993	Sociology of Aging (DS)	
SOC 4043	Gender and Work (DS)	
SOC 4153	Sociology of Health and Illness	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4433	Environmental Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4533	World Population Problems	
SOC 4643	Sociology of Gender (S)	
BIOL 3023	General Genetics [1]	3
CHEM 3053	Organic Chemistry I [1]	3
CHEM 3112	Organic Chemistry Laboratory [1]	2
CHEM 3153	Organic Chemistry II [1]	3
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Hours Subtotal		**51**
Electives		
Select 14 hours [1, 2]		14
May need to include 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
Hours Subtotal		**14**
Total Hours		**120**

1

With approval from the advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for these areas.

2

Recommend: BIOC 3653 Survey of BIochemistry & MICR 3033 Cell and Molecular Biology.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3

BIOL 1114	Introductory Biology (LN)	4
STAT 2013	Elementary Statistics (Q)	3
	Hours	**14**
Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
CHEM 1314	Chemistry I (LN)	4
HIST 1103	Survey of American History	3
POLS 1113	American Government	3
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
CHEM 1515	Chemistry II (LN)	5
Foreign Language I		3
Pre-Med SOC course		3
	Hours	**14**
Spring		
BIOL 1604	Animal Biology	4
MICR 2123	Introduction to Microbiology	3
Foreign Language II		3
Pre-Med SOC course		3
General Education course		3
	Hours	**16**
Junior		
Fall		
BIOL 3023	General Genetics	3
CHEM 3053	Organic Chemistry I	3
Pre-Med SOC course		3
General Education courses		6
	Hours	**15**
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
SOC 4133	Social Research Methods	3
College and Elective courses		6
	Hours	**14**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
PHYS 1114	College Physics I (LN)	4
Pre-Med SOC courses		6
General Education course		3
	Hours	**16**
Spring		
PHYS 1214	College Physics II (LN)	4
Pre-Med SOC courses		6
College and Elective courses		5
	Hours	**15**
	Total Hours	**120**

Sociology: Social Services, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(See note 2.a.)		9
Natural & Mathematics Sciences		
(See Note 2.b.)		3
Foreign Language		
(See note 3.)		9
Non-Western Studies		
At least one course. (See note 2.d.)		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**22**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in al SOC/ANTH courses 2.50 with a minimum grade of “C” in all SOC/ANTH courses.		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours from:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Social Services		
SOC 3223	Social Psychology (S)	3
SOC 3323	Collective Behavior and Social Movements	3
SOC 4153	Sociology of Health and Illness	3
SOC 4723	Sociology of Families (S)	3
Select nine hours from:		9
SOC 2243	Sociology of Drugs	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3953	Applied Sociology	
SOC 4023	Juvenile Corrections and Treatment Strategies	
SOC 4043	Gender and Work (DS)	
SOC 4653	Gender and the Middle East (GS)	
Select nine hours from:		9
HDFS 3423	Adolescent Development in Family Contexts (S)	
HDFS 3443	Family Dynamics	
HDFS 4423	Family Risk and Resilience	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3613	Community Health	
HLTH 3913	Substance Use & Public Health	
GWST 3553	LGBTQ Lives in the United States (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 7 hours.		7

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.	
Hours Subtotal	**7**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
A&S 1111	A&S First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**

Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
Inequalities SOC course		3
PSYC 1113	Introductory Psychology (S)	3
POLS 1113	American Government	3
Foreign Language III		3
	Hours	**15**
Spring		
HDFS 2113	Lifespan Human Development (S)	3
SOC 3223	Social Psychology (S)	3
SOC 3323	Collective Behavior and Social Movements	3
General Education courses		6
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Inequalities SOC course		3
Social Services course		3
General Education courses		6
	Hours	**15**
Spring		
SOC 4153	Sociology of Health and Illness	3
Social Services courses		6
General Education courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Social Services course		3
College and Elective courses		7
	Hours	**13**
Spring		
SOC 4723	Sociology of Families (S)	3
Social Services courses		6
College and Elective courses		6
	Hours	**15**
	Total Hours	**120**

Sociology: Social Services, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
(See note 2.a.)		3
Natural & Mathematics Sciences		
(See Note 2.b.)		9
Foreign Language		
(See note 3.)		
0-6 hours		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum major GPA 2.50 in major block.		
Minimum GPA in all SOC/ANTH courses 2.50 with a minimum grade of "C" in all SOC/ANTH courses..		
Minimum 30 hours of courses with SOC/ANTH prefix.		
Core Requirements		
SOC 1113	Introductory Sociology (S)	3
SOC 2123	Social Problems (DS)	3
or ANTH 1353	Introduction to Anthropology (S)	
SOC 3113	Theoretical Thinking in Sociology	3
SOC 4133	Social Research Methods	3
SOC 4243	Quantitative Methods in Sociology	3
Select 6 hours of the following:		6
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 3993	Sociology of Aging (DS)	
SOC 4213	Sociology of Sexualities (S)	
SOC 4383	Social Stratification (S)	
SOC 4643	Sociology of Gender (S)	
Social Services		
SOC 3223	Social Psychology (S)	3
SOC 3323	Collective Behavior and Social Movements	3
SOC 4153	Sociology of Health and Illness	3
SOC 4723	Sociology of Families (S)	3
Select 9 hours from the following:		9
SOC 2243	Sociology of Drugs	
SOC 3523	Juvenile Delinquency (DS)	
SOC 3953	Applied Sociology	
SOC 4023	Juvenile Corrections and Treatment Strategies	
SOC 4043	Gender and Work (DS)	
SOC 4653	Gender and the Middle East (GS)	
Select 9 hours from the following:		9
HDFS 3423	Adolescent Development in Family Contexts (S)	
HDFS 3443	Family Dynamics	
HDFS 4423	Family Risk and Resilience	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3613	Community Health	
HLTH 3913	Substance Use & Public Health	
GWST 3553	LGBTQ Lives in the United States (D)	
GWST 3613	Race and Reproduction in the U.S. (D)	
PSYC 4213	Conflict Resolution (S)	
Hours Subtotal		**51**
Electives		
Select 16 hours		16

May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 1 additional upper-division hour.	
Hours Subtotal	**16**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SOC 1113	Introductory Sociology (S)	3
ENGL 1113	Composition I	3
STAT 2013	Elementary Statistics (Q)	3
Foreign Language I		3
General Education course		3
	Hours	**16**

Spring		
SOC 2123	Social Problems (DS)	3
ENGL 1213	Composition II	3
HIST 1103	Survey of American History	3
Foreign Language II		3
General Education course		4
	Hours	**16**
Sophomore		
Fall		
SOC 3113	Theoretical Thinking in Sociology	3
PSYC 1113	Introductory Psychology (S)	3
POLS 1113	American Government	3
Inequalities SOC course		3
General Education course		3
	Hours	**15**
Spring		
SOC 3223	Social Psychology (S)	3
SOC 3323	Collective Behavior and Social Movements	3
HDFS 2113	Lifespan Human Development (S)	3
General Education courses		6
	Hours	**15**
Junior		
Fall		
SOC 4133	Social Research Methods	3
Inequalities SOC course		3
Social Services course		3
College and Elective courses		6
	Hours	**15**
Spring		
SOC 4153	Sociology of Health and Illness	3
Social Services courses		6
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
SOC 4243	Quantitative Methods in Sociology	3
Social Services course		3
College and Elective courses		9
	Hours	**15**
Spring		
SOC 4723	Sociology of Families (S)	3
Social Services courses		6
College and Elective courses		4
	Hours	**13**
	Total Hours	**120**

Statistics

Statistics is the science of learning from data. It is concerned with the development of theory and with the application of that theory to the collection, analysis, and interpretation of quantitative information.

Because statistics is important in many scholarly disciplines, a degree in statistics provides the opportunity to enter not only the statistics profession but also many other fields which make extensive use of statistics. The areas of application include agriculture, the biological sciences, engineering, the physical sciences, the social sciences, education, business, and home economics, among others. Statistics also promises to be important in emerging endeavors such as pollution and environmental research, energy utilization, and health-care administration.

Those who pursue the study of statistics should be interested in scientific inquiry and should have a good mathematical background. In addition, it is desirable that they have a genuine interest in another discipline and learn some application of statistics in that discipline.

Careers in government, industry, and education, involving the disciplines previously mentioned, are open to the statistics graduate. In government and industry a statistician usually serves as a researcher or as a consultant to research scientists and decision-makers. In education, of course, the teaching function is added to those of research and consultation.

The Department of Statistics offers the BS and MS degrees to those interested in applications of statistics, and the PhD degree to those who wish to make original contributions to the theory of statistics.

Courses

STAT 1013 Statistical Literacy (Q)
Prerequisites: Students must qualify for non-remediation of mathematics.
Description: This course focuses on statistical concepts and conclusions rather than on computations. Topics include descriptive measures, graphical representations, measures of center and variability, discussion of variability, sampling techniques, conditional probability interpretation and ramifications, confidence interval interpretation, practical vs. statistical significance, formulation and interpretation of hypothesis testing and p-values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2013 Elementary Statistics (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: An introductory course in the theory and methods of statistics. Descriptive measures, elementary probability, sampling, estimation, hypothesis testing, correlation and regression. Same course as STAT 2023 or STAT 2053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2023 Elementary Statistics for Business and Economics (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic statistics course for undergraduate business majors. Descriptive statistics, basic probability, discrete and continuous distributions, point and interval estimation, hypothesis testing, correlation and simple linear regression. Same course as STAT 2013 or STAT 2053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2053 Elementary Statistics for the Social Sciences (Q)
Prerequisites: MATH 1483 or higher, except MATH 1493, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: An introductory course in the theory and methods of statistics. Descriptive measures, elementary probability, sampling, estimation, hypothesis testing, correlation and regression. Same course as STAT 2013 or STAT 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 2331 SAS Programming
Prerequisites: A different programming language or consent of instructor.
Description: SAS as a general purpose programming language, data representation, input/output, use of built-in procedures, report generation. Course previously offered as CS 2331.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 2890 Honors Experience in Statistics
Prerequisites: Honors Program participation and concurrent enrollment in a designated STAT course.
Description: A supplemental Honors experience in statistics to partner concurrently with designated statistics courses. This course adds a different intellectual dimension to the designated courses. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Honors Credit

STAT 3013 Intermediate Statistical Analysis
Prerequisites: STAT 2013, STAT 2023 or STAT 2053.
Description: Applications of elementary statistics, introductory experimental design, introduction to the analysis of variance, simple and multiple linear regression, nonparametric statistics, survey sampling and time series. Data analysis using Excel included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 3023 Statistical Reasoning for Medical Applications (Q)
Prerequisites: MATH 1483 or MATH 1513 or higher on an acceptable math placement score. See mathplacement.okstate.edu.
Description: This course focuses on developing the quantitative skills necessary for success in medical school and related activities. Topics include study design, descriptive measures, graphical representations, basic probability, statistical inference, correlation and regression, contingency tables.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 3033 Sports Analytics (Q)
Prerequisites: Any of the following: MATH 1483, or MATH 1513, or an equivalent college algebra course, or math placement score of 50 or higher.
Description: This course focuses on developing the quantitative skills necessary to analyze both sports performance metrics and sports business data. Topics include introduction to data ecosystems, building relational databases. data visualization techniques, computation and evaluation of performance metrics, exploring statistical relationships, predictive modelling, analytics in sports marketing. and data-driven decision-making in sports management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4013 Statistical Methods I (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic experimental statistics, basic probability distributions, methods of estimation, tests of significance, linear regression and correlation, analysis of variance for data that are in a one way, a two-way crossed, or in a two-fold nested classification. Same course as STAT 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4023 Statistical Methods II
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple regression in estimation and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4063 or STAT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4033 Engineering Statistics
Prerequisites: MATH 2133 or MATH 2163.
Description: Probability, random variables, probability distributions, estimation, confidence intervals, hypothesis testing, linear regression. No degree credit for students with credit in STAT 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4043 Applied Regression Analysis
Prerequisites: One of STAT 4013, STAT 4033, STAT 4053, STAT 5013 or equivalent.
Description: Matrix algebra, simple linear regression, residual analysis techniques, multiple regression, dummy variables, interactions, model building, introduction to logistic regression. This course explains fundamentals of linear regression and provides an introduction to logistic regression. May not be used for degree credit with STAT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4053 Statistical Methods I for the Social Sciences (Q)
Prerequisites: MATH 1513 or higher, with a grade of "C" or better; or an acceptable placement score (see mathplacement.okstate.edu).
Description: Basic experimental statistics, basic probability distributions, methods of estimation, tests of significance, linear regression, calculation and analysis of variance for one and two-way classifications. Same course as STAT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics
General Education and other Course Attributes: Analytical & Quant Thought

STAT 4063 Statistical Methods II for the Social Sciences
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4023 and STAT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4073 Engineering Statistics with Design of Experiments
Prerequisites: MATH 2163.
Description: Random variables and basic probability distributions, estimation, confidence intervals, hypothesis testing, basic analysis of variance, factorial arrangement of treatments and fractional factorial experiments, elementary quality control. No degree credit for students with credit in STAT 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4091 Sas Programming
Prerequisites: STAT 4013 or equivalent.
Description: SAS dataset construction, elementary statistical analysis, and use of statistics and graphics procedures available in SAS. No credit for students with credit in STAT 5091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4123 Probability Theory
Prerequisites: MATH 2163 and either MATH 2233 or MATH 3013.
Description: Basic probability, including conditional, marginal, and joint distributions. Random variables, moments, independences and dependence, common distributions, and distributions of functions of random variables.Course explains probability calculations, the usefulness of probability, and fundamentals required for obtaining sampling distributions. Useful in preparing for the actuarial P exam. May not be used for degree credit with STAT 4203, STAT 5123 and STAT 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4191 R Programming
Prerequisites: STAT 4013 or equivalent.
Description: R dataset construction, elementary statistical analysis, and use of statistics and graphics with R. May not be used for degree credit with STAT 4193, STAT 5191, STAT 5193.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4193 SAS and R Programming
Prerequisites: STAT 4013 or equivalent.
Description: SAS and R dataset construction, elementary statistical analysis, and use of statistics and graphics with SAS and R. May not be used for degree credit with STAT 4091, STAT 4191, STAT 5091, STAT 5191, STAT 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4203 Mathematical Statistics I
Prerequisites: MATH 2163 with a grade of "C" or better.
Description: Probability, random variables such as Poisson, Geometric, Hypergeometric, Uniform, Normal, Gamma, Beta, Exponential and their distributions, independence and correlation, multivariate distributions, marginal and conditional probabilities, functions of random variables, order statistics and their distributions, moment generating functions, the Central Limit Theorem. May not be used for degree credit with STAT 4123 and STAT 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4213 Mathematical Statistics II
Prerequisites: STAT 4203 or STAT 4123.
Description: Methods of estimating population parameters such as point and confidence interval estimation for a mean, proportion, and the difference between means and proportions, maximum likelihood methods, method of moments, hypothesis testing and its applications, sample size estimation, linear regression models, and categorical data analysis. May not be used for degree credit with STAT 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4463 Statistical Machine Learning with R
Prerequisites: STAT 4043.
Description: Computationally intense statistical methods for prediction and classification with R. Topics are bias-variance tradeoff; prediction and classification error; cross validation; bootstrapping; linear and logistic regression; discriminant functions; k-nearest neighbors; local and spline-based regression; generalized additive models; model selection and regularization; support vector machines; decision trees; principle component analysis; cluster analysis. May not be used for degree credit with STAT 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4910 Special Studies
Prerequisites: Consent of instructor.
Description: Special subjects in statistics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics

STAT 4980 Internship in Statistics
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a Statistics-related professional work setting. Students must have an approved internship that will provide statistical experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics

STAT 4981 Statistics Capstone I
Prerequisites: STAT 4023, STAT 4043, STAT 4091 or STAT 4193; and STAT 4203 or concurrent enrollment.
Description: Information and preparation for graduate school for statistics undergraduates, communication skills for collaborating with scientists, introduction to research in statistics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4991 Statistics Capstone II
Prerequisites: STAT 4023 and STAT 4043 and STAT 4091 or STAT 4193; and STAT 4203 or concurrent enrollment.
Description: Career skills for statistics undergraduates entering the workforce, communication skills for collaborating with scientists.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Statistics

STAT 4993 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors project under the direction of a faculty member, with a second faculty reader and an oral examination. Required for graduation with departmental honors in statistics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Statistics
General Education and other Course Attributes: Honors Credit

STAT 5000 Master's Research
Prerequisites: Consent of advisory committee.
Description: Methods of research and supervised thesis or report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5002 Applied Masters Creative Component
Prerequisites: Consent of advisory committee.
Description: Creative component for Applied Masters in Statistics.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5003 Statistics for Medical Residents
Prerequisites: Employed as a medical or veterinary resident or permission of instructor.
Description: Survey of statistical methodology relevant to health care professionals. Basic understanding of statistics presented in recent medical literature. Hypothesis testing, ANOVA techniques, regression, categorical techniques. Same course as BIOM 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5013 Statistics for Experimenters I
Prerequisites: Graduate standing and MATH 1513.
Description: Introductory statistics course for graduate students. Descriptive statistics, basic probability, estimation, hypothesis testing, p-values, analysis of variance, multiple comparisons, correlation and linear regression, categorical data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5023 Statistics for Experimenters II
Prerequisites: Graduate standing and STAT 4023 or STAT 5013.
Description: Analysis of variance, contrasts and multiple comparisons, factorial experiments, variance components and their estimation, completely randomized, randomized block and Latin square designs, split plot experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5033 Nonparametric Methods
Prerequisites: One of STAT 4023, STAT 4043, STAT 5023 or consent of instructor.
Description: A continuation of STAT 4013 and STAT 4023, concentration on nonparametric methods. Alternatives to normal-theory statistical methods; analysis of categorical and ordinal data, methods based on rank transforms, measures of association, goodness of fit tests, order statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5043 Sample Survey Designs
Prerequisites: One of STAT 4013, STAT 4033, STAT 5013 or consent of instructor.
Description: Constructing and analyzing personal, telephone and mail surveys. Descriptive surveys including simple random, stratified random designs. Questionnaire design, frame construction, non-sampling errors, use of random number tables, sample size estimation and other topics related to practical conduct of surveys.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5053 Time Series Analysis
Prerequisites: STAT 4043.
Description: An applied approach to the analysis of time series in the time domain. Trends, autocorrelation, random walk, seasonality, stationarity, autoregressive integrated moving average (ARIMA) processes, Box-Jenkins method, forecasting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5063 Statistical Machine Learning with R
Prerequisites: STAT 5543.
Description: Computationally intense statistical methods for prediction and classification with R. Topics are bias-variance tradeoff; prediction and classification error; cross validation; bootstrapping; linear and logistic regression; discriminant functions; k-nearest neighbors; local and spline-based regression; generalized additive models; model selection and regularization; support vector machines; decision trees; principle component analysis; cluster analysis. May not be used for degree credit with STAT 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5073 Categorical Data Analysis
Prerequisites: STAT 5223, STAT 5023 or equivalent or concurrent enrollment.
Description: Analysis of data involving variables of a categorical nature. Independence/association test for contingency tables, exact tests for small counts, generalized linear models, logistic regression models for binary response variables, loglinear models for count data, analyses of ordinal variables, multicategory logit models for multiple category responses, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5083 Statistics for Biomedical Researchers
Prerequisites: STAT 5013.
Description: Analysis of variance, experimental designs pertaining to medical research, regression and data modeling, categorical techniques and the evaluation of diagnostic tests. No credit for students with credit in STAT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5091 Sas Programming
Prerequisites: STAT 5013 or equivalent.
Description: SAS dataset construction, elementary statistical analysis, and use of statistics and graphics procedures available in SAS. No credit for students with credit in STAT 4091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5093 Statistical Computing
Prerequisites: STAT 5223.
Description: Random variable generation; numerical calculations of maximum likelihood estimators, computer intensive exact tests; randomized tests; bootstrap and cross validation methods, Monte Carlo integration and simulation; Markov Chain Monte Carlo methods for Bayesian estimation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5123 Probability Theory
Prerequisites: MATH 2163 and one other course in MATH that has either MATH 2144 or MATH 2153 as a prerequisite.
Description: Basic probability, including conditional, marginal, and joint distributions. Random variables, moments, independences and dependence, common distributions, and distributions of functions of random variables. Course explains probability calculations, the usefulness of probability, and the fundamentals required for obtaining sampling distributions. Useful in preparing for the actuarial P exam.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5133 Stochastic Processes
Prerequisites: STAT 5123 and MATH 2233, MATH 3013.
Description: Definition of a stochastic process, probability structure, mean and covariance function, the set of sample functions, stationary processes and their spectral analyses, renewal processes, counting processes, discrete and continuous Markov chains, birth and death processes, exponential model, queuing theory. Same course as IEM 5133 & MATH 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5191 R Programming
Prerequisites: STAT 4013 or STAT 5013.
Description: R dataset construction, elementary statistical analysis, and use of statistics and graphics with R. May not be used for degree credit with STAT 4191, STAT 4193, STAT 5193.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5193 SAS and R Programming
Prerequisites: STAT 5013 or equivalent.
Description: SAS and R dataset construction, elementary statistical analysis, and use of statistics and graphics with SAS and R. May not be used for degree credit with STAT 4091, STAT 4191, STAT 4193, STAT 5191, STAT 5091.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5213 Bayesian Analysis
Prerequisites: STAT 5123 or STAT 5253 or STAT 4203 or consent of instructor.
Description: Bayes rule, fundamentals of Bayesian statistics, conjugate priors, posterior and predictive inference. Markov chain Monte Carlo, computation and software, hierarchical models, convergence diagnostics, Bayes factor, nonparametric Bayes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5223 Statistical Inference
Prerequisites: STAT 5123 and MATH 3013.
Description: Convergence concepts, Central Limit Theorem, sampling distributions, point estimation, maximum likelihood methods, Bayesian estimation, Cramer-Rao lower bound, confidence intervals. Hypothesis testing including Neyman-Pearson tests, uniformly most powerful tests, and generalized likelihood ratio tests. Course derives and explains testing and estimation included in introductory statistics courses. Useful for understanding assumptions and theory in common statistical methods. Previously offered as STAT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5253 Mathematical Statistics I
Prerequisites: MATH 2163 with a grade of "C" or better.
Description: Probability, random variables such as Poisson, Geometric, Hypergeometric, Uniform, Normal, Gamma, Beta, Exponential and their distributions, independence and correlation, multivariate distributions, marginal and conditional probabilities, functions of random variables, order statistics and their distributions, moment generating functions, the Central Limit Theorem. No credit for students with credit in STAT 4203 or STAT 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5263 Mathematical Statistics II
Prerequisites: STAT 5253 or STAT 4123.
Description: Methods of estimating population parameters such as point and confidence interval estimation for a mean, proportion, and the difference between means and proportions, maximum likelihood methods, method of moments, hypothesis testing and its applications, sample size estimation, linear regression models, and categorical data analysis. No credit for students with credit in STAT 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5303 Experimental Designs
Prerequisites: STAT 5023 or STAT 4023 with consent of instructor.
Description: Students will identify treatment structures and design structures, conduct the analyses of data from experimental scenarios, and interpret the results. The understanding and preparation of statistical analysis statements for publication are also covered. Analysis topics include: ANOVA, multiple comparisons, factorial experiments, complete and incomplete block designs, linear mixed models analysis (including repeated measures analysis), split-plot experiments, 2n and 3n factorial experiments, fractional factorial experiments, crossover designs, ANCOVA and SAS programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5323 Theory of Linear Models I
Prerequisites: STAT 5223, MATH 3013, and one of STAT 4023 or STAT 5023.
Description: Matrix theory (generalized inverse, idempotent matrix, and non- negative matrix results), multivariate normal distribution, quadratic forms, chi-square distribution, general linear models, estimability, general hypothesis testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5333 Theory of Linear Models II
Prerequisites: STAT 5323.
Description: Maximum likelihood estimation; one- way and two-way ANOVA models, multiple comparisons, regression models, linear mixed models, variance component estimation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5503 Statistical Literacy for Researchers
Prerequisites: MATH 1513.
Description: This course focuses on developing the statistical skills graduate students will utilize in deciphering the wealth of data available today. The course focuses on concepts and conclusions rather than on computations. Topics include descriptive statistics, basic probability, confidence interval, hypothesis testing and p-values, analysis of variance, design of experiments, categorical data analysis, multiple linear regression, logistic regression, and nonparametric statistics. This course cannot be used as a prerequisite for other statistics courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5513 Multivariate Analysis
Prerequisites: STAT 5323.
Description: Multivariate normal distribution, simple, partial and multiple correlation, multivariate sampling distributions. Wishart distribution, general T-distribution, estimation of parameters and tests of hypotheses on vector means and covariance matrix. Classification problems, discriminate analysis, and applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5543 Applied Regression Analysis
Prerequisites: One of STAT 4013, STAT 4033, STAT 4053, STAT 5013 or equivalent.
Description: Matrix algebra, simple linear regression, residual analysis techniques, multiple regression, dummy variables, interactions, model building, introduction to logistic regression. This course explains fundamentals of linear regression and provides an introduction to logistic regression. May not be used for degree credit with STAT 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5563 Statistical Methods II for the Social Sciences
Prerequisites: STAT 3013 or STAT 4013 or STAT 4033 or STAT 4053.
Description: Basic concepts of experimental design. Analysis of variance, covariance, split-plot design. Factorial arrangements of treatments, multiple and curvilinear regression, enumeration data. May not be used for degree credit with STAT 4023 and STAT 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 5910 Seminar in Statistics
Prerequisites: Consent of instructor.
Description: Investigation of special problems in the theory and/or application of statistics using current techniques. Special studies for M.S. level students. Offered for variable credit, 1-6 credits. maximum of 3 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 5980 Internship in Statistics
Prerequisites: Consent of instructor.
Description: Directed practicum or internship experience in a Statistics-related professional work setting. Students must have an approved internship that will provide statistical experience beyond that available in the classroom. Students produce written analyses of their work and learning under the guidance of the instructor and internship site supervisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee.
Description: Directed research culminating in the PhD thesis. Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

STAT 6010 Statistics Literature
Prerequisites: Consent of instructor.
Description: Published journal articles from statistics or related areas are discussed. Previously offered as STAT 6001. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6013 Genetic Statistics
Prerequisites: Elementary Statistics or with the permission of the instructor.
Description: Course provides a statistical basis for analyzing genetic sequence data. Review of basic concepts in statistics including graphical and numerical methods, sample size estimation for biological experiments, and hypothesis testing. Review of basic concepts in genetics including DNA, genes, alleles, polymorphisms, SNP's. Descriptive statistics for genetic sequences, use of statistical tools for sequence analysis and statistical inference with R.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6113 Advanced Probability Theory
Prerequisites: STAT 5123 and MATH 5143.
Description: Measure theoretical presentation of probability, integration and expectation, product spaces and independence, conditioning, different kinds of convergence in probability theory, statistical spaces, characteristic functions and their applications. Previously offered as STAT 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6203 Large Sample Inference
Prerequisites: STAT 5223 and STAT 6113.
Description: Different types of convergence in probability theory, central limit theorem, consistency, large sample estimation and tests of hypotheses, concepts of asymptotic efficiency, nonparametric tests. Previously offered as STAT 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6223 Advanced Statistical Inference
Prerequisites: STAT 6113.
Description: Point estimation, maximum likelihood, Cramer-Rao inequality, confidence intervals, Neyman-Pearson theory of testing hypothesis and power of test. Previously offered as STAT 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Statistics

STAT 6910 Special Problems
Prerequisites: Consent of instructor.
Description: Investigation of special problems in the theory and application of statistics using current techniques. Special studies for PhD level students. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Statistics

Undergraduate Programs

- Statistics, BS (p. 1936)
- Statistics: Actuarial Science, BS (p. 1939)
- Statistics: Business Essentials, BS (p. 1942)
- Statistics: Data Science, BS (p. 1945)

Graduate Programs

Admission Requirements

It is necessary to have an undergraduate degree, not necessarily in statistics or mathematics, to begin a program of study toward the master's degree in statistics. In some instances, it may be advantageous to have an undergraduate degree in another field. However, the student should have acquired a good mathematical background and some

statistical background as an undergraduate. Also, each student is required to have completed CS 1113 Computer Science I (A) or to have demonstrated competence in a programming language such as C. This should be equivalent to the required courses in the bachelor's program:

Code	Title	Hours
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (Q)	3
MATH 3013	Linear Algebra (Q) (not required for Applied MS)	3
MATH 4013	Calculus of Several Variables (not required for Applied MS)	3
CS 1113	Computer Science I (Q)	3

Students admitted to the program with deficiencies will be required to remedy such deficiencies. MATH 3013 and MATH 4013 are not required for the Master of Science in Applied Statistics.

The Master of Science Degree

The Master of Science degree in statistics is designed to prepare students for work as a statistician or doctoral studies in statistics. It may be completed by following one of the three plans listed in the "Graduate College (p. 2927)" section of the Catalog. Normally, the all-course work plan will be initiated at the suggestion of the faculty. Each student will be required to attain an introductory knowledge of some field of application outside of statistics, mathematics, and computer science. This requirement may be satisfied by having taken a three-hour graduate course in an approved field of statistical application.

The Master of Science in Applied Statistics Degree

The Master of Science in Applied Statistics (MSAS) degree can be completed with online coursework. It is intended to be a terminal professional master's degree. It is not intended to be preparation for doctoral work in statistics. Neither comprehensive exams nor a thesis or formal report is required for completion of this degree. A two-hour creative component course is required at the end of the matriculation through the program. More information regarding this degree can be found on the OSU Statistics Department website.

The Doctor of Philosophy Degree

The PhD requires the completion of 90 hours beyond the BS degree. A maximum of 30 of these credit hours may be earned by research for the dissertation. Each student will be required to attain an introductory knowledge of some field of application which may be satisfied by taking a three-hour graduate course outside the fields of statistics, mathematics, and computing.

Minors

- Applied Statistics (APST), Minor (p. 1933)
- Statistical Data Science (SDSC), Minor (p. 1934)
- Statistics (STAT), Minor (p. 1935)

Faculty

Melinda H. McCann, PhD—Professor and Head

Professors: Carla L. Goad, PhD; Joshua Habiger, PhD; Lan Zhu, PhD
Associate Professors: Ye Liang, PhD; Pratyaydipta Rudra, PhD
Assistant Professors: Sangyoon Yi, PhD; Zeyi Wang, PhD
Teaching Assistant Professor: Nishantha Samarakoon, PhD; Alyaa Zahran, PhD; Nicholas Kaukis, PhD
Lecturer: Jana Alford, MS

Applied Statistics (APST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C"
Total Hours: 15

Code	Title	Hours
Minor Requirements		
STAT 4013	Statistical Methods I (A)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4463	Statistical Machine Learning with R	3
or STAT 5033	Nonparametric Methods	
or STAT 5053	Time Series Analysis	
12 of the 15 hours must be in residence at OSU.		
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Statistical Data Science (SDSC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Contact: Cara Brun, 213 LSE, 405-744-5658.

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
STAT 4013	Statistical Methods I (A)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
MSIS 3103	End User Database Systems Design and Management	3
MSIS 3223	Principles of Data Analytics	3
12 of the 18 hours must be in residence at OSU.		
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Statistics (STAT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Cara Brun, 213 LSE, 405-744-5658

Minimum Grade Point Average in Minor Coursework: 2.50
Total Hours: 25

Code	Title	Hours
Minor Requirements		
MATH 2144	Calculus I (A)	4
MATH 2153	Calculus II (A)	3
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (A)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
Total Hours		**25**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Statistics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
CS 2133	Computer Science II	3
or MATH 2233	Differential Equations	
CS 3513	Numerical Methods for Digital Computers	3
or MATH 4513	Introduction to Numerical Analysis	
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
Statistics Core Courses (25 hours)		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
STAT 4013	Statistical Methods I (Q)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
STAT 4213	Mathematical Statistics II	3
STAT 4981	Statistics Capstone I	1
or STAT 4991	Statistics Capstone II	
Area of Application (9 hours)		
Select 9 hours of the following:		9
CS 3353	Data Structures and Algorithm Analysis I	
CS 3443	Computer Systems	
CS 3653	Discrete Mathematics for Computer Science	
ECON 3113	Intermediate Microeconomics	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
FIN 3113	Principles of Finance	
FIN 4223	Investments	
FIN 4333	Financial Modeling	
FIN 4763	Financial Futures and Options Markets	
IEM 3703	Probability and Statistics for Engineers II	
IEM 4013	Operations Research	
IEM 4103	Quality Control and Reliability Analysis	
IEM 4113	Experimental Design and Analysis for Engineering	
MATH 3613	Introduction to Abstract Algebra	
MATH 4013	Calculus of Several Variables	
MATH 4423	Geometry and Algorithms in Three-Dimensional Modeling	
MATH 4453	Mathematical Interest Theory	
MATH 4553	Introduction to Optimization	
MATH 4663	Combinatorics	
MSIS 3103	End User Database Systems Design and Management	
or MSIS 3333	Database Systems Development	

	MSIS 3223	Principles of Data Analytics
	MSIS 3233	Management Science - Prescriptive Analytics
	MSIS 3243	Descriptive Analytics
	MSIS 3393	Advanced Spreadsheet Modeling and Programming
	STAT 4463	Statistical Machine Learning with R
	STAT 4980	Internship in Statistics (max 3 hours)
	STAT 5053	Time Series Analysis
Concentration (9 hours)		
9 additional upper-division hours from Area of Application or 9 upper-division hours of one prefix from CS, ECON, FIN, IEM, MATH (excluding MATH 3303, 3403, or 3603), MSIS, MKTG, MGMT, STAT, or other upper-division courses approved by the department		9
Hours Subtotal		**43**
Electives		
Select 24 hours		24
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		
MATH 1513 and/or MATH 1813 required for students who do not place directly into MATH 2144.		
Hours Subtotal		**24**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
MATH 2144	Calculus I (Q)	4
General Education and Elective courses (MSIS 2103 recommended)		10
	Hours	**15**
Spring		
MATH 2153	Calculus II (Q)	3
If interested in Economics or Finance Application, consider ECON 2003 or 2103, and ACCT 2003.		
General Education courses		12
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (Q)	3
General Education courses		9
	Hours	**15**
Spring		
MATH 3013	Linear Algebra (Q)	3
STAT 4023	Statistical Methods II	3
CS 1113 or CS 1103	Computer Science I (Q) or Computer Programming (Q)	3
College and Elective courses		6
	Hours	**15**
Junior		
Fall		
STAT 4193	SAS and R Programming	3
CS 2133 or MATH 2233	Computer Science II or Differential Equations	3
3 hours from Area of Application		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4043	Applied Regression Analysis	3
3 hours from Area of Application		3
3 hours from Concentration		3
Major, College, and Elective courses		6
	Hours	**15**
Senior		
Fall		
STAT 4203	Mathematical Statistics I	3
STAT 4981	Statistics Capstone I (if Grad School bound)	1
CS 3513 or CS 4513	Numerical Methods for Digital Computers or Introduction to Numerical Analysis	3
3 hours from Area of Application		3
3 hours from Concentration		3
Major, College, and Elective courses		2
	Hours	**15**
Spring		
STAT 4213	Mathematical Statistics II	3
STAT 4991	Statistics Capstone II (if Industry bound)	1
3 hours from Concentration		3
Major, College, and Elective courses		8
	Hours	**15**
	Total Hours	**120**

1

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.

Statistics: Actuarial Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one from the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
ECON 2103	Introduction to Microeconomics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
MATH 2233	Differential Equations	3
MATH 4513	Introduction to Numerical Analysis	3
or CS 3513	Numerical Methods for Digital Computers	
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "'C" in each course.		
No more than 29 hours from ACCT, BADM, ECON, EEE, FIN, LSB, MGMT, MKTG, MSIS may be applied to the degree.		
Statistics Core Courses (25 hours):		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
STAT 4013	Statistical Methods I (Q)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
or STAT 4123	Probability Theory	
STAT 4213	Mathematical Statistics II [1]	3
STAT 4981	Statistics Capstone I	1
or STAT 4991	Statistics Capstone II	
Actuarial Science Requirements (24 hours):		
ACCT 2003	Survey of Accounting [1]	3
ECON 2203	Introduction to Macroeconomics [1]	3
FIN 3113	Principles of Finance [1]	3
MATH 4453	Mathematical Interest Theory	3
Select 6 hours from:		6
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
FIN 3613	General Insurance	
FIN 4223	Investments	
FIN 4333	Financial Modeling	
FIN 4763	Financial Futures and Options Markets	
FIN 4843	Risk Management	
STAT 4980	Internship in Statistics (max 3 hours)	
STAT 5053	Time Series Analysis	
Select 6 hours from:		6
ECON 3113	Intermediate Microeconomics	
MATH 3613	Introduction to Abstract Algebra	
MATH 4013	Calculus of Several Variables	
MATH 4553	Introduction to Optimization	
MATH 4663	Combinatorics	
MGMT 3013	Fundamentals of Management (S)	
or any upper-division AGEC, ECON, FIN.		
Hours Subtotal		**49**
Electives		
Select 18 hours.		18
May need to include 6 hours of a foreign language. See note 3.		

May need to include 6 hours upper-division general education outside major department. See note 2.c.	
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
SPCH 2713 highly recommended.	
Hours Subtotal	**18**
Total Hours	**120**

[1]

Minimum grade of "B" required for the Society of Actuaries' Validation by Educational Experience (VEE) certification.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1

MATH 2144	Calculus I (Q)	4
General Education and Elective courses (MSIS 2103 recommended)		11
	Hours	**16**
Spring		
MATH 2153	Calculus II (Q)	3
ECON 2103	Introduction to Microeconomics (S)	3
General Education courses		9
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (Q)	3
ACCT 2003	Survey of Accounting	3
General Education courses		6
	Hours	**15**
Spring		
MATH 3013	Linear Algebra (Q)	3
STAT 4023	Statistical Methods II	3
CS 1103 or CS 1113	Computer Programming (Q) or Computer Science I (Q)	3
FIN 3113	Principles of Finance	3
College and Elective courses		3
	Hours	**15**
Junior		
Fall		
STAT 4193	SAS and R Programming	3
CS 2133 or MATH 2233	Computer Science II or Differential Equations	3
3 hours from Actuarial Science courses		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4043	Applied Regression Analysis	3
MATH 4453	Mathematical Interest Theory (Recommended: SOA Exam FM Preparation)	3
Major Elective		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
STAT 4203	Mathematical Statistics I	3
CS 3513 or CS 4513	Numerical Methods for Digital Computers or Introduction to Numerical Analysis	3
STAT 4981	Statistics Capstone I (if Grad School bound)	1
3 hours from Concentration		3
Major, College, and Elective courses		5
	Hours	**15**
Spring		
STAT 4213	Mathematical Statistics II	3
STAT 4991	Statistics Capstone II (if Industry bound)	1
3 hours from Actuarial Science courses		3
Major elective		3
Elective courses		4
	Hours	**14**
	Total Hours	**120**

Statistics: Business Essentials, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
CS 2133	Computer Science II	3
or MATH 2233	Differential Equations	
CS 3513	Numerical Methods for Digital Computers	3
or CS 4513	Introduction to Numerical Analysis	
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
No more than 29 hours from ACCT, BADM, ECON, EEE, FIN, LSB, MGMT, MKTG, MSIS may be applied to the degree.		
Statistics Core Courses:		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
STAT 4013	Statistical Methods I (Q)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
STAT 4213	Mathematical Statistics II	3
STAT 4981	Statistics Capstone I	1
or STAT 4991	Statistics Capstone II	
Area of Application:		
9 hours to be selected from upper-division CS, ECON, FIN, IEM, MATH (excluding MATH 3303, 3403, or 3603), MSIS, STAT (no more than 3 hours of STAT 4980).		9
ACCT 2003	Survey of Accounting	3
MKTG 3213	Marketing (S)	3
3 hours from:		3
ECON 2003	Microeconomic Principles for Business	
EEE 2023	Introduction to Entrepreneurship	
LSB 3213	Legal and Regulatory Environment of Business	
MSIS 2103	Business Data Science Technologies	
Hours Subtotal		**43**
Electives		
Select 24 hours.		24
May need 6 hours of a foreign language. See note 3.		
May need to include 6 hours upper-division general education outside major department. See note 2.c.		
MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.		
SPCH 2713 highly recommended.		
Hours Subtotal		**24**
Total Hours		**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
MATH 2144	Calculus I (Q)	4
General Education and Elective courses (MSIS 2103 recommended)		10
	Hours	**15**
Spring		
MATH 2153	Calculus II (Q)	3
ECON 2003	Microeconomic Principles for Business	3
ACCT 2003	Survey of Accounting	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3

STAT 4013	Statistical Methods I (Q)	3
MGMT 3013	Fundamentals of Management (S)	3
General Education courses		6
	Hours	**15**
Spring		
MATH 3013	Linear Algebra (Q)	3
STAT 4023	Statistical Methods II	3
CS 1103 or CS 1113	Computer Programming (Q) or Computer Science I (Q)	3
MKTG 3213	Marketing (S)	3
College and Elective courses		3
	Hours	**15**
Junior		
Fall		
STAT 4193	SAS and R Programming	3
CS 2133 or MATH 2233	Computer Science II or Differential Equations	3
3 hours from Area of Application		3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4043	Applied Regression Analysis	3
3 hours from Area of Application		3
Major, College, and Elective courses		9
	Hours	**15**
Senior		
Fall		
STAT 4203	Mathematical Statistics I	3
CS 3513 or CS 4513	Numerical Methods for Digital Computers or Introduction to Numerical Analysis	3
STAT 4981	Statistics Capstone I (if Grad School bound)	1
3 hours from Area of Application		3
Major, College, and Elective courses		5
	Hours	**15**
Spring		
STAT 4213	Mathematical Statistics II	3
STAT 4991	Statistics Capstone II (if Industry bound)	1
Major, College, and Elective courses		11
	Hours	**15**
	Total Hours	**120**

Statistics: Data Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
(see note 2.a.)		3
Natural & Mathematical Sciences		
CS 1103	Computer Programming (Q)	3
or CS 1113	Computer Science I (Q)	
CS 2133	Computer Science II	3
or MATH 2233	Differential Equations	
CS 3513	Numerical Methods for Digital Computers	3
or CS 4513	Introduction to Numerical Analysis	
Foreign Language		
0-6 hours. See note 3.		
Upper-Division General Education		
6 hours outside major department (See note 2.c.)		
Hours Subtotal		**13**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course.		
No more than 29 hours from ACCT, BADM, ECON, EEE, FIN, LSB, MGMT, MKTG, MSIS may be applied to the degree.		
Statistics Core Courses		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
STAT 4013	Statistical Methods I (Q)	3
STAT 4023	Statistical Methods II	3
STAT 4043	Applied Regression Analysis	3
STAT 4193	SAS and R Programming	3
STAT 4203	Mathematical Statistics I	3
STAT 4213	Mathematical Statistics II	3
STAT 4981	Statistics Capstone I	1
or STAT 4991	Statistics Capstone II	
Data Science		
MSIS 2103	Business Data Science Technologies	3
MSIS 3103	End User Database Systems Design and Management	3
or MSIS 3333	Database Systems Development	
STAT 4463	Statistical Machine Learning with R	3
Select 9 hours from the following:		9
MSIS 2203	Computer Programming for Business	
MSIS 3223	Principles of Data Analytics	
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3393	Advanced Spreadsheet Modeling and Programming	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
STAT 4980	Internship in Statistics (max 3 hours)	
STAT 5053	Time Series Analysis	
Select 6 additional hours from Data Science courses or 6 hours from any upper-division CS, MATH (excluding MATH 3303, 3404, or 3603), MKTG, MGMT, MSIS, or STAT.		6
Hours Subtotal		**49**
Electives		
18 hours		18
May need to include 6 hours of a foreign language. (see note 3.)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.)		

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.	
Hours Subtotal	**18**
Total Hours	**120**

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
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   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
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   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
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   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
MATH 2144	Calculus I (Q)	4
MSIS 2103	Business Data Science Technologies	3
General Education and Elective courses (MSIS 2103 recommended)		7
	Hours	**15**
Spring		
MATH 2153	Calculus II (Q)	3

General Education courses		12
	Hours	**15**
Sophomore		
Fall		
MATH 2163	Calculus III	3
STAT 4013	Statistical Methods I (Q)	3
MSIS 3103	End User Database Systems Design and Management	3
General Education courses		6
	Hours	**15**
Spring		
MATH 3013	Linear Algebra (Q)	3
STAT 4023	Statistical Methods II	3
CS 1113 or CS 1103	Computer Science I (Q) or Computer Programming (Q)	3
College and Elective courses		6
	Hours	**15**
Junior		
Fall		
STAT 4193	SAS and R Programming	3
CS 2133 or MATH 2233	Computer Science II or Differential Equations	3
MSIS 3223	Principles of Data Analytics	3
Major, College, and Elective courses		6
	Hours	**15**
Spring		
STAT 4043	Applied Regression Analysis	3
MSIS 3233	Management Science - Prescriptive Analytics	3
Major Elective		3
College and Elective courses		6
	Hours	**15**
Senior		
Fall		
STAT 4203	Mathematical Statistics I	3
CS 3513 or CS 4513	Numerical Methods for Digital Computers or Introduction to Numerical Analysis	3
STAT 4981	Statistics Capstone I (if Grad School bound)	1
3 hours from Data Science courses		3
Major Elective		3
College and Elective courses		2
	Hours	**15**
Spring		
STAT 4213	Mathematical Statistics II	3
STAT 4991	Statistics Capstone II (if Industry bound)	1
STAT 4463	Statistical Machine Learning with R	3
Elective courses		8
	Hours	**15**
	Total Hours	**120**

Theatre

The Department of Theatre offers the Bachelor of Arts in Theatre degree and minors in Theatre and Dance.

The BA degree is a generalist degree, designed to provide a broad background in practical and theoretical areas while allowing students to develop an area of emphasis. The BA in Theatre is a comprehensive 45-hour degree with coursework in performance, technical theatre, directing, design, theatre history and dramatic literature. Students may elect an emphasis in performance, technical theatre, and design, or a combination of performance and design/tech. This degree program is ideally suited for students interested in several areas of performance and production and who desire a comprehensive education in every aspect of theatre. The size of the degree plan allows for students to pursue a double major or minor in another discipline.

An active production program in two well-equipped theatre spaces augments coursework. The regular production schedule consists of four faculty-supported main stage productions each year and two to four studio productions that are primarily directed, designed, and performed by students. Students also have the opportunity to study with a variety of guest artists and scholars during each academic year.

In addition to professional careers in acting and production, this major can lead to careers in arts management, teaching, law, counseling, or any career area where effective personal communication, team work, problem solving, and creativity are essential.

Courses

DANC 1003 Introduction to Dance Studies (H)
Description: Explore dance as an art form and academic discipline within a global context. No prior dance experience necessary.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

DANC 1200 Dance Ensemble Practicum
Description: Directed study and practice of dance in performance as a soloist or ensemble member. Offered for variable credit, 1-2 credit hours, maximum of 6 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

DANC 2002 Ballet I
Description: Fundamentals of ballet vocabulary, technique, and aesthetics taught through exercises at the barre, center work, and movement combinations. Suitable for the beginning through advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2102 Contemporary Modern Dance I
Description: Class provides an introduction to the use of gravity, spatial awareness, rhythm, and energy through study of global influences which construct contemporary dance - through floor work, center, and traveling combinations. Suitable for the beginning through advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2202 Jazz Dance
Description: Jazz dance techniques for theatrical performance emphasizing body alignment, coordination, flexibility, rhythm and jazz dance vocabulary in simple dance combinations. Suitable for the beginning through advanced student. Previously offered as TH 2412.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2302 Tap I
Description: Fundamentals of tap dance techniques for theatrical performance emphasizing coordination, rhythm, and dance vocabulary in simple tap combinations. Suitable for the beginning through intermediate student. Previously offered as TH 2432.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2402 Hip Hop Dance and Cultures
Description: This class provides an introduction to hip hop dance techniques and histories. Grounded in appropriate historical and cultural contexts, students will experience various styles under the Hip Hop "umbrella", and develop an understanding of the socio-cultural forces which shape the form.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2563 American Social Dance and Visual Culture
Description: This introductory course offers a beginning-level survey of the cultural history of social dance in North America from the eighteenth century to the present. It combines study of the history, theory, and visual/material culture of social dance with physical practice of specific dance forms. Because few comprehensive written sources exist for social dance, visual art, including film, animation, paintings, sculpture, photography, and illustration, is a vital tool for understanding historic dance and its role in American society. Over the course of the semester, we will examine the visual culture of social dance in order to gain insight into its historical functions as a tool for social cohesion, intercultural exchange, protest/activism, and identity formation, among other things. Through the practice of these dance forms, we will add an experiential component to our analysis of the roles that social dance has played in American culture over time. Same course as ART 2563.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Theatre

DANC 2602 Dance Composition
Prerequisites: DANC 2002 and DANC 2102 or permission of instructor.
Description: An investigation of the elements of dance composition and improvisation in order to experience new kinds of movement, make connections among varied movement ideas, and seek new relationships to create dances. A primer for choreographic studies.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 2603 Context and Cultures: Mapping the Dancing Body (H)
Description: This course orients students to the field of dance as an art form and academic discipline that exists beyond simple entertainment. Through readings, video viewing, discussions, writing, and creative assignments students will attune to "reading" the body as a space of intelligence, a creator and product of culture, and entwined within its socio-political contexts. Students will apply critical lenses of gender, race/ethnicity, economics, sexuality, and colonial/post-colonial/neo-colonialism to analyze systems of power. Coursework is curated to encourage curiosity, critical engagement, and a layered understanding of the rich lineages of dance. Students will demonstrate their understanding through written, spoken, and movement-based work.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Discussion
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

DANC 3002 Ballet II
Prerequisites: DANC 2002 or permission of instructor.
Description: Building upon Ballet I, this course emphasizes technical and artistic skills in style and presentation, and the use of increasingly complex combinations and technical vocabulary.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3102 Contemporary Modern Dance II
Prerequisites: DANC 2102 or permission of instructor.
Description: Building on DANC 2102, class provides a continued investigation in to the use of gravity, spatial awareness, rhythm, and energy through study of global influences which construct contemporary dance - through floor work, center, and traveling combinations. Suitable for intermediate through advanced students.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3302 Tap II
Prerequisites: DANC 2302 or permission of instructor.
Description: This class builds on the skills developed in Tap I, with a focus on complex rhythmic patterns, advanced tap steps, and Broadway choreography. Recommended for the Intermediate to advanced student.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3400 Teaching Assistant Practicum
Prerequisites: Permission of instructor.
Description: Directed study and practice of dance teaching. This course provides the opportunity for students to learn about the process of teaching through active observation and assisting the instructor during a dance course. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Lab: 2-4 Contact: 3-6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3502 Musical Theatre Dance
Prerequisites: Ballet 1 or consent of instructor.
Description: Course focuses on training performers in the various dance styles used in Broadway and Off-Broadway musicals, and demonstrates the dance skills through performance of choreography by well-known choreographers.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3530 Special Topics in Dance
Prerequisites: Instructor approval.
Description: This course offers specialized topics in dance techniques and dance histories. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Lab: 1-4 Contact: 2-7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

DANC 3603 Choreography
Prerequisites: DANC 2602 or permission of instructor.
Description: Building upon DANC 2602 Dance Composition, this course is an investigation of dance composition and the choreographic process. Students will learn and execute the fundamentals of dance choreography.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

DANC 3703 Competition Dance - Through an Ethnographic Lens
Description: This upper-level course provides students the opportunity to learn, broadly, about dance as an expression of culture and, specifically, about the phenomenon of commercial competition dance in the United States. Through readings, lectures, discussion, and active fieldwork, students will learn about and utilize Ethnography as a framework for research; apply critical lenses to analysis of research, and plan, administer, and report on active field research. From week to week, students will observe and analyze filmed competition dance classes, rehearsals, and performances through critical research lenses of economics, pedagogy, race/ethnicity, gender, and performance of sexuality. Students will also consider factors of child development as they relate to these lenses. Final work will be submitted as a written report and a verbal presentation developed in collaboration with a small group of peers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1223 Acting Fundamentals for Non-Majors
Description: This acting course introduces students to fundamental acting techniques. Through lecture and application, students will focus on observation, improvisation, and performances, learning to effectively express themselves orally and physically, develop empathy, enhance communication skills, nurture creativity, and build leadership and teamwork abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1301 BFA Acting Laboratory
Description: The BFA Acting Laboratory is a course designed to give students the opportunity to explore concepts from their acting class in a laboratory environment. Using group problem-solving techniques, students will create weekly performances, critically respond to others performances and develop a sense of community within the BFA environment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1310 BFA Movement Laboratory 1
Description: The BFA Movement Laboratory is a course designed to give students the opportunity to explore concepts from their movement class in a laboratory environment. Students will be developing and strengthening their physical instrument (mind, body, voice) through rigorous physical investigation including yoga, tai chi, circuit training, circus, acrobatics, strength training, kinesthetic awareness and flexibility. Previously offered as TH 1311. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lab: 2-8 Contact: 2-8
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 1323 Acting I - Fundamentals of Acting
Description: An introduction to the craft of acting for performance: ensemble techniques, vocal and physical development for the actor, fundamental scene and character analysis, basic audition techniques, and scene performance workshops. No previous experience necessary. Previously offered as TH 1322.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1330 BFA Movement Laboratory 2
Description: The BFA Movement Laboratory 2 is a course designed to give students the opportunity to explore advanced concepts from their movement class in a laboratory environment working in ensemble. Students will be developing and strengthening their physical instrument (mind, body, voice) through rigorous physical investigation including partner yoga, adagio, advanced circus, advanced acrobatics, dramatic acrobatics, long form tai chi and mask work. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 1333 Voice for the Actor
Description: Study of the skills required to develop an expressive, resonant voice, and Improved speech on and off the stage. The class will focus on freeing the breath, the release of physical tenslon, the flexibility of the voice, and application of vocal and physical variety as It pertains to the impulse to speak. Content includes vocal anatomy, methods to prevent vocal Injury, and an Introduction of the International Phonetic Alphabet.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1403 Musicianship for the Singing Actor I
Prerequisites: Theatre major, Musical Theatre Major.
Description: This course develops core musical skills that actors need for interacting with a score-based art form. Topics include critical listening, aural skills, and improvisation as well as reading and writing musical notation. Focusing on practical needs in the industry, students develop skills in keyboarding, conducting, and audio production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1413 Musicianship for the Singing Actor II
Prerequisites: TH 1403 or Instructor Permission.
Description: This course builds advanced musical skills following the basics acquired in Musicianship for the Singing Actor I. Students learn sight-singing, ensemble collaboration, back-phrasing, and recitative. Focusing on practical needs in the industry, students develop skills in keyboarding, conducting, and audio production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 1500 Run Crew Practicum
Description: Practical application of run crew duties by participation in technical rehearsals and performances for a Theatre Department Production. Offered for fixed 1 credit hour, maximum of 6 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 1663 Stage Technology
Description: An introduction to technical concepts for theatrical productions in the performance and entertainment disciplines. Lectures provide preparatory principles, concepts, and theory; laboratory hours teach hands-on skills needed in the technical production environment including scenographic elements and fabrication. Course previously offered as TH 1664.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 1673 Costume Technology
Description: An introduction to technical concepts for theatrical productions in the performance and entertainment disciplines. Lectures provide preparatory principles, concepts, and theory; laboratory hours teach hands-on skills needed in the costume production environment including hand and machine sewing and pattern making. Previously offered as TH 1674 and TH 2673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2213 Dialects and Accents for Stage and Screen
Prerequisites: TH 1333 Voice and Movement.
Description: The study and practice of dialects and accents most frequently required by American actors. The course will Include the study of the cultural impact on speech and dialect acquisition. Students will be expected to use the International Phonetic Alphabet for transcriptions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2320 Performance Lessons I
Prerequisites: BFA Musical Theatre major or instructor permission.
Description: This one-on-one vocal coaching focuses on learning and performing musical theatre song as well as other popular styles encountered by the modern singing actor (jazz, pop, rock, country). Emphasis is on healthy singing, musical style, developing practice routines, and analyzing music and lyrics. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2323 Acting II - Character Development
Prerequisites: TH 1323.
Description: A continuation of the actor's process to the intermediate level. Content will include further character study, scene analysis, Improvisation, and applied Stanlslavski based techniques. Scene work will focus on truthful behavior through imaginary circumstances on the stage, including extreme circumstances, using active or event analysis. Audition techniques will be further developed. Students will see OSU Theatre Department or professional productions and write critical responses to that work.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2413 Introduction to Staged Entertainment (H)
Description: Explores storytelling through performance and how staged and filmed performances create and convey meaning in western society. Attendance of productions and study of acting, directing, entertainment technology, dramatic structure, and artistic movements. For non-majors; no prior theatre experience necessary.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 2500 Production Crew Practicum
Description: Laboratory experience in the theatrical production process through participation on a production crew for a department production or semester. Course previously offered as TH 1501. Offered for variable credit,1-2 credit hours, maximum of 8 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 2553 Fundamentals of Theatrical Design
Description: A comprehensive exploration of the essential principles, theories, and practices in theatrical design for performance and entertainment disciplines. Students will be equipped with the foundation of the creative processes that bring performances to life by crafting compelling and immersive storytelling by means of design. Through a blend of lectures, practical projects, and critical analysis, students will cultivate the solid skill sets of an ideal theatrical designer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2563 Script Analysis
Description: The study of writing for performance from the point of view of entertainment professionals, including directors, designers, performers and technicians. Course focuses on the techniques necessary for the translation of the written text into production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2593 Lighting Technology
Description: An introduction to the principles and practices of stage lighting in performance and entertainment disciplines. Includes theoretical explorations and hands-on practice of elementary electricity, mechanics of lighting equipment, and artistic aspects of lighting technology that enhance performance and entertainment productions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2633 Movement for the Actor
Prerequisites: TH 1323 Acting I.
Description: This is an introductory course to the physical aspects of role creation. It introduces the student to a variety of methodologies to increase somatic awareness used in analyzing and altering physical performance for the stage. The students will be evaluated on the application of theories discussed and demonstrated in class.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 2753 Stage Management
Description: An introduction to stage management for the performing arts. Emphasis on basic stage management skills, professional etiquette, and incorporation of digital tools and documentation. Overview of stage management relationships with other departments, timelines of productions, and application of stage management skills in other areas of performance and entertainment disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2833 Transition to Professions in Design and Technology
Prerequisites: TH 1663 and TH 1673; and TH 1500 or TH 2500.
Description: Preparation for transition into the professional world for theatre designers and technicians. Includes career development, national/international theatre organizations, portfolio preparation, websites, resume/application writing and interviewing. Course previously offered as TH 3533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 2971 Stage Makeup
Description: Techniques of basic stage makeup. Application of makeup including a study of facial anatomy and character development. Laboratory work in preparation for departmental productions. Course previously offered as TH 3971.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 3183 Theatrical Scenic Design
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: Approaches to designing scenery for performance and entertainment disciplines. Through lectures and practical exercises, students will learn to create visually compelling environments by integrating research and conceptual analysis. Focusing on the entire design process, including technical considerations and collaboration, students will develop the skills needed to become a successful theatrical scenic designer. Previously offered as TH 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3203 Musical Theatre Vocal Styles I
Prerequisites: TH 1403 or Instructor Permission.
Description: This course explores the musical features and vocal styles represented in early 20th century Musical Theatre literature including operetta, Golden-Age, and musical comedy. Core topics include tone, diction, phrasing, and vibrato as well as the physicality and movements associated with a style period. Students apply these styles and techniques to their own performance. The course includes critical viewing and listening of musical theatre repertoire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3233 Musical Theatre Vocal Styles II
Prerequisites: TH 1403 or Instructor Permission.
Description: This course explores the musical features and vocal styles represented in the second half of the 20th century musical theatre literature, extending to contemporary works, including rock, pop, county, and folk. Core topics include tone, diction, phrasing, and vibrato as well as the physicality and movements associated with a style period. Students apply these styles and techniques to their own performance. The course includes critical viewing and listening of musical theatre repertoire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3320 Performance Lessons II
Prerequisites: TH 2320 and Instructor Permission.
Description: Building on Performance Lessons I, this upper-level one-on-one vocal coaching explores the synthesis of music and lyrics within theatre song as well as popular styles encountered by the modern singing actor (jazz, pop, rock, country). Emphasis is on advanced techniques in vocal style, musical phrasing, lyric analysis, diction, and performance. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3323 Theatrical Sound Design and Technology
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: A comprehensive exploration of creating immersive and impactful sound environments for performance and entertainment disciplines. Students will acquire the skills needed to design, implement, and manage sound for theatrical productions using various technologies and techniques. Previously offered as TH 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3343 Acting for Musical Theatre
Prerequisites: TH 1323 or Instructor's permission.
Description: Acting for Musical Theatre is a performance-oriented course in which students will apply fundamentals of acting to musical theatre song. Students will workshop and perform musical theatre songs of multiple genres and develop skills in acting, and movement. This course will be a combination of lecture and practical application of learned concepts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3373 Acting III - Shakespeare
Prerequisites: TH 1323 and TH 2323 or consent of instructor.
Description: Designed to provide a foundational understanding and working knowledge of many of Shakespeare's plays, this course will use a combination of both lecture and action-based studio work to expand and refine the actor's skills. Physical and vocal techniques needed to perform classical verse plays will be included. Course previously offered as TH 4143.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3400 Upper-Division Projects
Prerequisites: Consent of instructor.
Description: Individual or group study of techniques, history, or literature of the theatre. Required project or term paper. May not be used for degree credit with TH 5400. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 3433 Acting for the Camera
Prerequisites: TH 1323 and TH 2323 or consent of instructor.
Description: An introduction to acting with electronic media technology. Through a series of exercises and scenes students will become familiar with the similarities and differences of acting on stage and with technology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3500 Theatre Practicum II
Prerequisites: Consent of instructor.
Description: Advanced laboratory experience in theatre production, design, acting, and/or major crew assignments. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Theatre

TH 3503 Digital Branding for the Performer
Description: This course surveys the development of radio, television, cable/satellite, and digital media, including the Internet and how it affects the modern actor. We will focus on how technology and industrial control of the electronic media shape an actor's content. The purpose of this course is to provide you with a solid understanding of how the electronic media function in modern life in terms of the social, political, and cultural impact for the actor. Students will be utilizing film, editing software, social media, website design to create content and audition reels.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3530 Topics in Performance
Prerequisites: Consent of instructor.
Description: Specialized topics in acting or directing. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3593 Theatrical Lighting Design
Prerequisites: TH 2593, TH 2553, and TH 2563 or consent of instructor.
Description: Approaches to the principles and techniques of lighting design for performance and entertainment disciplines. Students will learn to research, conceptualize, and execute lighting design through a combination of theoretical study and practical application. Previously offered as TH 4593.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 3633 Diverse American Drama (DH)
Description: Survey of dramatic literature and theatre created by diverse dramatists and theatre companies in the United States. Course focus may either be a broad investigation of drama across many different identity groups or an in-depth exploration of the theatrical activity of one group of people.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

TH 3822 Advanced Stage Movement
Prerequisites: TH 2633 or instructor's permission.
Description: This course investigates kinesthesia In the actor through a progression of exercises that strengthen physical agility, listening, and responding. The student will deepen the connection between impulse and action through mask, physical comedy, biomechanics, and plastique training. Students will liberate the right-brained imagination for transformative performance, preparing the student for In-depth exploration of character development, with emphasis on ensemble collaboration.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 3823 Advanced Voice for the Stage
Prerequisites: TH 1333.
Description: This course is a continuation of the development and practice of skills in breathing, phonation and resonance, with added attention being paid to the analysis, expression and pronunciation of elevated and/or poetic drama. Students will also investigate how different acoustical spaces require different vocal techniques needed for the amplification of the voice.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3843 Musical Theatre Scene Study
Prerequisites: TH 2343 or Instructor Approval.
Description: Musical Theatre Scene Study is an advanced performance course focusing on musical theatre scenes. This course will be a combination of lecture and practical application of learned concepts, focusing on navigating the transition between scene and song.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3853 Auditioning
Prerequisites: TH 3843 or TH 3373 or Instructor's permission.
Description: This course wIll develop the tools necessary for professional development and pursuit of work as a theatrical performer. Students will prepare for and experience practical musical and non-musical in-person and video auditions. Main topics Include self-tapes, casting, networking, and booking work. Emphasizing professional readiness, students create a professional portfolio-resume, headshots, audition book, and website. Course previously offered as TH 4853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3863 Auditioning in Musical Theatre
Prerequisites: TH 2343 or instructor approval.
Description: The goal of this course is to teach students the skills and aspects of professional musical theatre auditions. Students in this course will learn the elements of auditioning in musical theatre and how to build a complete audition book. They will be given guidance and feedback about cover letters, resumes and headshots and basic information about the professional world. Finally, students will test out their skills with multiple mock audition opportunities.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 3873 History of Musical Theatre (H)
Description: Musical Theatre History is a survey course of the American musical theatre tradition, exploring representative shows, creators, and performers that trace the evolution of this unique American art form from its origins to contemporary Broadway and pop culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3923 World Theatre History Before 1800 (H)
Description: Aesthetic and social relationships of the dramatic arts and world cultures from Ancient Greece to the 19th century. Course previously offered as TH 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3933 World Theatre History After 1800 (H)
Description: Aesthetic and social relationships of the dramatic arts and world cultures from the 19th century to the present. Course previously offered as TH 3123. May be taken prior to TH 3923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre
General Education and other Course Attributes: Human Heritage & Cultures

TH 3953 Theatrical Costume Design
Prerequisites: TH 2553 and TH 2563 or consent of instructor.
Description: Approaches to costume design for performance and entertainment disciplines through research, conceptual analysis, figure drawing, and execution of sketches and renderings. Previously offered as TH 4973.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4303 Ensemble Theatre
Description: Ensemble Theatre is an alternative approach to creating that emphasizes collaborative ensemble-based writing, community research and outreach, and social and political awareness. Utilizing improvisational techniques, community-oriented research skills and non-textual performance practices, students will explore and create theatre based on their communities, interests and concerns.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4320 BFA Voice Lessons III
Prerequisites: TH 3320.
Description: This course is a continuation of private vocal instruction for students nearing completion of the Musical Theatre BFA degree. Building on the skills learned in BFA Voice Lessons II, students will explore advanced techniques of color and style within the musical theatre genre, continuing to develop their vocal instrument and performance skills. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Lecture: 1-2 Contact: 1-2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4353 Acting IV - Advanced Scene Study
Prerequisites: TH 2323 or Instructor's permission.
Description: An advanced scene study acting laboratory to sharpen the actor's process for professional preparation. This course explores acting pedagogy and techniques which synthesize all previous acting levels, providing a timely capstone experience as the student actor prepares to enter the profession.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4382 Staged Combat and Physical Acting
Prerequisites: TH 2633 or Instructor's permission.
Description: Advanced application of the actor's movement skills to the unique requirements of theatrical forms that Incorporate stage violence or physical comedy. Applied skills include hand-to-hand combat armed combat, and may include tumbling, gymnastics, clowning, mask work, or ethnic arts. Previously offered as TH 4383.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 4403 Senior Honors Project
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis or performance under the direction of a faculty member, with second faculty committee member. Required for graduation with departmental honors in theatre.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4423 Professional Preparation for Performance
Prerequisites: Must have completed 72 credit hours or Instructor's permission.
Description: This course will prepare students to make the transition from academic theatre to professional theatre. Students will research what is currently happening in the industry, and develop the skills needed to be a working professional Other topics will include the business aspects of a career in theatre, a plan for personal financial health, the business of creating and producing theatre work, creating a relocation plan to a potential arts market and the graduate school process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4630 Topics in Design and Technology
Prerequisites: TH 1663, 1673 and 2553 or consent of instructor.
Description: Specialized topics in scenic, costume, sound, or lighting design or technology. Course previously offered as TH 3630. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4653 Advanced Stage Technology
Prerequisites: TH 1663.
Description: Advanced study in technical concepts for productions in the performance and entertainment disciplines. Lectures provide principles, concepts, and theory; laboratory hours offer advanced hands-on skills needed in the technical production environment including unique scenographic elements and advanced fabrication techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4673 Advanced Costume Technology
Prerequisites: TH 1673.
Description: Advanced study in technical concepts for costuming in the performance and entertainment disciplines. This course explores principles, concepts, and theory with hands-on skills needed in a costume production environment including historical costume elements and advanced fabrication techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4753 Advanced Stage Management
Prerequisites: TH 1500 and TH 2753 or consent of instructor.
Description: Advanced procedures and leadership skills of effective stage management for performance and entertainment disciplines. Principles of efficient management of rehearsals and performances, collaboration with artistic team members to execute and maintain creative vision, and exploration of stage management roles in various entertainment fields. May not be used for degree credit with TH 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 4953 Directing
Prerequisites: TH 1323 and TH 2563 and TH 4753 or consent of instructor.
Description: Script analysis for production, problems in staging, and the role of the director. Planning and direction of scenes in laboratory situations. May not be used for degree credit with TH 5953.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 4983 Theatrical Scenic Painting
Prerequisites: TH 1663 or consent of instructor.
Description: Explores the various tools, materials, techniques, and processes used in scenic painting for performance and entertainment disciplines. Through research and practical experience, students will acquire the skills necessary to implement theatrical painting techniques per designer specification.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Theatre

TH 4990 BFA Capstone
Prerequisites: TH 2320 (4) and TH 3320 (3).
Description: In this course, students demonstrate mastery of singing and acting through memorized songs in the form of a recital, cabaret, or other creative project. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Theatre

TH 5000 Master's Thesis and Research
Prerequisites: Consent of department head.
Description: Master's level research in theatre for thesis option graduate students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5100 Master's Creative Component and Research
Description: Master's level research in theatre for creative component option graduate students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5113 Theatre History and Theory I
Description: Global study of theatre and performance across cultures and multiple theories used to interpret and construct world theatre history, from ancient times to the nineteenth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5240 Topics in Advanced Acting
Description: Specialized topics in advanced acting. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-2 Lab: 0-2 Contact: 1-4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5313 Dramaturgy
Description: Advanced investigation of the nature and process of dramaturgy. Emphasis on dramaturgical research and writing. No credit for students with credit in TH 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5383 Action Acting
Description: This course introduces the student to stage violence. Emphasis is placed on safe and dramatically effective performance of violent scenes, to include slapstick and physical comedy. Stage/screen fencing, unarmed combat, basic tumbling, physical comedy, and theatrical firearms are covered within the context of scene work. May not be used for degree credit with TH 4383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5400 Seminar in Theatre
Description: Individual or group studies of techniques, history or literature of the theatre. A term paper or written report and self-evaluation of the study or project required. Cannot receive credit for both TH 3400 and TH 5400. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5500 Individual Theatre Projects
Prerequisites: Consent of instructor.
Description: Individual projects in directing, acting, or design and technology for a specified theatre production, with concept, realization, and self-evaluation under faculty guidance. Course previously offered as TH 5090. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Theatre

TH 5513 Theatre History and Theory II
Description: Global study of theatre and performance across cultures and multiple theories used to interpret and construct world theatre history, from the nineteenth century to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5600 Seminar in Dramatic Literature
Prerequisites: Consent of instructor.
Description: Selected topics in dramatic literature. Texts and themes will vary by semester. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5673 Advanced Costume Construction
Description: Advanced construction of techniques for theatrical costumes. Includes period garments, pattern drafting, fabric manipulation, and boning. May not be used for degree credit with TH 4673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Theatre

TH 5753 Stage Management
Description: Procedures and skills of effective stage management. Authoritative coordination of performers and technicians during rehearsal and performance periods. Maintenance and use of the production prompt book, notation of ground plan and blocking; scene shifts; cues for lighting, sound, special effects, and performers; opening and calling the show; post-show wrap-up. May not be used for degree credit with TH 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

TH 5953 Problems in Advanced Directing
Description: Problems in directing styles, especially Shakespeare, comedy, and absurdist drama. Preparation, rehearsal and staging of a complete production by each student. May not be used for degree credit with TH 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Theatre

Undergraduate Programs

- Acting, BFA (p. 1959)
- Musical Theatre, BFA (p. 1964)
- Theatre, BA (p. 1968)

Graduate Programs

The department offers coursework leading to the Master of Arts degree in Theatre. The Master of Arts degree in Theatre is an initial graduate degree designed to build on students' individual theatre skills and to deepen a student's theoretical and practical understanding of the art form. Accepting only a limited number of students each year, the program affords a great deal of individual contact with faculty members and considerable latitude in developing the plan of study.

Graduate candidates take a central core of graduate level courses in theatre history, theory, and directing, augmented by other courses available in the department and the university to develop and support their areas of special interest. Typically students accepted into this degree program pursue careers in professional theatre, become teachers in secondary schools or two-year colleges, or they prepare for the pursuit of advanced degree work in a Master of Fine Arts or Doctoral program.

The Master of Arts degree may be achieved in accordance with any of the three plans described in the section "Master's Degree Programs" in the "Graduate College (p. 2927)" section of the *Catalog*.

A limited number of graduate teaching assistantships (GTA's) are available to highly qualified students. Information and application information may be obtained from the department head.

Undergraduate credentials should be referred to the department graduate program coordinator for evaluation to assist advisement and to determine any possible deficiencies that will affect the admission status.

Minors

- Arts Administration (AADM), Minor (p. 1962)
- Dance (DANC), Minor (p. 1963)
- Theatre (TH), Minor (p. 1967)

Faculty

Lee Brasuell, MFA—Associate Professor and Head
Professors: Andrew Kimbrough, PhD
Assistant Professors: Jason Estala, MFA; Marley Giggey, MFA; Devon Hunt, MFA; Eric Frei, MM; Joan Korte, MFA; David Weber, MFA; Fabian J Garcia, MFA
Instructor of Professional Practice: Leslie Currell, MFA, Brian Butler, MFA; Larry Huffman, BA

Acting, BFA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours MATH or STAT designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
ENGL 4723	Studies in Shakespeare (H)	3
TH 3923	World Theatre History Before 1800 (H)	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
TH 3933	World Theatre History After 1800 (H)	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
TH 1323	Acting I - Fundamentals of Acting	3
TH 1663	Stage Technology	3
TH 2563	Script Analysis	3
Foreign Language		
0-6 hours. See note 3.		
Non-Western Studies		
At least one course. See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**10**
Major Requirements		
Minimum GPA 3.00 in major block, with no grade below "C."		
TH 1333	Voice for the Actor	3
TH 1500	Run Crew Practicum (minimum 1 hour)	1
TH 1673	Costume Technology	3
TH 2213	Dialects and Accents for Stage and Screen	3
TH 2323	Acting II - Character Development	3
TH 2633	Movement for the Actor	3
TH 2971	Stage Makeup	1
2 hours DANC from:		2
DANC 2002	Ballet I	
DANC 2102	Contemporary Modern Dance I	
DANC 2202	Jazz Dance	
DANC 2302	Tap I	
DANC 2402	Hip Hop Dance and Cultures	
DANC 2602	Dance Composition	
DANC 3002	Ballet II	
DANC 3102	Contemporary Modern Dance II	
DANC 3302	Tap II	
DANC 3502	Musical Theatre Dance	
TH 3373	Acting III - Shakespeare	3
TH 3433	Acting for the Camera	3
Six hours from:		6
TH 3530	Topics in Performance	
TH 3822	Advanced Stage Movement	2
TH 3823	Advanced Voice for the Stage	3
TH 3853	Auditioning	3
TH 4303	Ensemble Theatre	3
TH 4353	Acting IV - Advanced Scene Study	3
TH 4382	Staged Combat and Physical Acting	2
TH 4423	Professional Preparation for Performance	3
TH 4753	Advanced Stage Management	3
TH 4953	Directing	3
Electives		
Select 8 hours from the following:		8
TH 1403	Musicianship for the Singing Actor I	
TH 3843	Musical Theatre Scene Study	
Any 2 hours of practical DANC		
TH 3400	Upper-Division Projects	
TH 3500	Theatre Practicum II (No more than 2 credit hours)	
TH 3530	Topics in Performance	
TH 3633	Diverse American Drama (DH)	
Hours Subtotal		**64**

Electives	
Select 6 hours.	6
May need to include 6 hours upper-division general education outside major department. See note 2.c.	
May need to include 6 hours of a foreign language. See note 3.b.	
Hours Subtotal	**6**
Total Hours	**120**

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Program Entrance Requirements

- All Acting majors must successfully complete an entrance audition to enter the program. An annual performance jury will determine continued participation in the Bachelor of Fine Arts program.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
TH 1323	Acting I - Fundamentals of Acting	3
TH 1663 or TH 1673	Stage Technology or Costume Technology	3
TH 2563	Script Analysis	3
TH 1500	Run Crew Practicum	1
General Education courses		3
	Hours	**14**
Spring		
TH 1333	Voice for the Actor	3
TH 2633	Movement for the Actor	3
TH 1673 or TH 1663	Costume Technology or Stage Technology	3
General Education courses		6
	Hours	**15**
Sophomore		
Fall		
TH 2323	Acting II - Character Development	3
TH 2971	Stage Makeup	1
Theatre Elective		3
General Education or College courses		9
	Hours	**16**
Spring		
TH 4953 or TH 2213	Directing or Dialects and Accents for Stage and Screen	3
TH 3633	Diverse American Drama (DH)	3
TH Elective		3
General Education or College courses		6
	Hours	**15**
Junior		
Fall		
TH 3373	Acting III - Shakespeare	3
TH 4382	Staged Combat and Physical Acting	2
TH 3923	World Theatre History Before 1800 (H)	3
TH 4753	Advanced Stage Management	3
ENGL 4723	Studies in Shakespeare (H)	3
DANC Course option		2
	Hours	**16**
Spring		
TH 2213	Dialects and Accents for Stage and Screen	3
TH 3933	World Theatre History After 1800 (H)	3
TH 3853	Auditioning	3
TH 3530	Topics in Performance	3
General Education course		3
	Hours	**15**
Senior		
Fall		
TH 4353	Acting IV - Advanced Scene Study	3
TH 4423	Professional Preparation for Performance	3
TH 3822	Advanced Stage Movement	2
Theatre Elective		2
General Education or Elective courses		4
	Hours	**14**
Spring		
TH 3433	Acting for the Camera	3
TH 3823	Advanced Voice for the Stage	3
TH 4303	Ensemble Theatre	3
TH 3530	Topics in Performance	3
General Education or Elective course		3
	Hours	**15**
	Total Hours	**120**

Arts Administration (AADM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clarissa Bonner 209 MOR, 405-744-6146

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 17

Code	Title	Hours
Minor Requirements		
AADM 1203	Introduction to Arts Administration	3
AADM 2103	Fundraising for the Arts	3
AADM 2500	Practicum in Arts Administration	2
AADM 3203	Approaches in Arts Administration	3
Select six hours from:		6
AADM 4203	Senior Project in Arts Administration	
ART 3583	Introduction to Museum and Curatorial Studies (H)	
DANC 1003	Introduction to Dance Studies (H)	
MGMT 3013	Fundamentals of Management (S)	
MUSI 1623	Introduction to Music Business	
TH 2413	Introduction to Staged Entertainment (H)	
Total Hours		**17**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Dance (DANC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clarissa Bonner - 209 Morrill Hall, (405) 744-6146

Total Hours: 16

Code	Title	Hours
Minor Requirements		
DANC 1003	Introduction to Dance Studies (H)	3
DANC 2002	Ballet I	2
DANC 2102	Contemporary Modern Dance I	2
DANC 2202	Jazz Dance	2
DANC 2602	Dance Composition	2
Select 5 hours of the following:		5
DANC 1200	Dance Ensemble Practicum	
DANC 2302	Tap I	
DANC 3002	Ballet II	
DANC 3102	Contemporary Modern Dance II	
DANC 3502	Musical Theatre Dance	
DANC 3603	Choreography	
Total Hours		**16**

Other Requirements

- No grade below "C."

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Musical Theatre, BFA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours MATH or STAT designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
TH 3923	World Theatre History Before 1800 (H)	3
or TH 3933	World Theatre History After 1800 (H)	
ENGL 4723	Studies in Shakespeare (H)	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
TH 3873	History of Musical Theatre (H)	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Arts & Humanities		
See note 2.a.		
TH 1323	Acting I - Fundamentals of Acting	3
TH 1663	Stage Technology	3
or TH 1673	Costume Technology	
TH 2563	Script Analysis	3
Foreign Language		
0-6 hours. See note 3.		
Non-Western Studies		
At least one course. See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department. See note 2.c.		
Hours Subtotal		**10**
Major Requirements		
Minimum GPA 3.00 with no grade below "C."		
TH 1403	Musicianship for the Singing Actor I	3
TH 1413	Musicianship for the Singing Actor II	3
TH 1500	Run Crew Practicum	1
Four (4) hours from:		4
TH 2320	Performance Lessons I	
TH 2323	Acting II - Character Development	3
TH 2633	Movement for the Actor	3
TH 2971	Stage Makeup	1
TH 3203	Musical Theatre Vocal Styles I	3
TH 3233	Musical Theatre Vocal Styles II	3
Three (3) hours from:		3
TH 3320	Performance Lessons II	
TH 3343	Acting for Musical Theatre	3
TH 3373	Acting III - Shakespeare	3
TH 3843	Musical Theatre Scene Study	3
DANC 2002	Ballet I	2
DANC 2202	Jazz Dance	2
DANC 2302	Tap I	2
DANC 3002	Ballet II	2
DANC 3502	Musical Theatre Dance	2
Two hours from:		2
DANC 2102	Contemporary Modern Dance I	
DANC 2402	Hip Hop Dance and Cultures	
DANC 3302	Tap II	
TH 3853	Auditioning	3
TH 4423	Professional Preparation for Performance	3
TH 4953	Directing	3
TH 4990	BFA Capstone	1
Theatre Electives		*6*
TH 1333	Voice for the Actor	
TH 2213	Dialects and Accents for Stage and Screen	
TH 3400	Upper-Division Projects	
TH 3433	Acting for the Camera	
TH 3500	Theatre Practicum II	
TH 3530	Topics in Performance	
TH 3633	Diverse American Drama (DH)	
TH 4353	Acting IV - Advanced Scene Study	
Hours Subtotal		**64**
Electives		

Select 6 hours.	6
May need to include 6 hours upper-division general education outside major department. See note 2.c.	
May need to include 6 hours of a foreign language. See note 3.b.	
Hours Subtotal	**6**
Total Hours	**120**

All Musical Theatre majors must successfully complete an entrance audition to enter the program. An annual performance jury will determine continued participation in the Bachelor of Fine Arts program.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
TH 2320	Performance Lessons I	1

TH 1323	Acting I - Fundamentals of Acting	3
TH 2563	Script Analysis	3
TH 1500	Run Crew Practicum	1
DANC 2002	Ballet I	2
General Education courses		3
	Hours	**14**
Spring		
TH 2320	Performance Lessons I	1
TH 2633	Movement for the Actor	3
TH 2971	Stage Makeup	1
DANC 2202	Jazz Dance	2
General Education courses		9
	Hours	**16**
Sophomore		
Fall		
TH 2323	Acting II - Character Development	3
TH 2320	Performance Lessons I	1
TH 3343	Acting for Musical Theatre (or TH 2243)	3
TH 1403	Musicianship for the Singing Actor I	3
DANC elective		2
General Education or College courses		3
	Hours	**15**
Spring		
TH 2320	Performance Lessons I	1
TH 1413	Musicianship for the Singing Actor II	3
TH 1663 or TH 1673	Stage Technology or Costume Technology	3
DANC 2302	Tap I	2
General Education or College courses		6
	Hours	**15**
Junior		
Fall		
TH 3320	Performance Lessons II	1
TH 3203	Musical Theatre Vocal Styles I	3
TH 3873	History of Musical Theatre (H)	3
DANC 3502	Musical Theatre Dance	2
General Education or Elective courses		7
	Hours	**16**
Spring		
TH 3320	Performance Lessons II	1
TH 3233	Musical Theatre Vocal Styles II	3
TH 3843	Musical Theatre Scene Study	3
TH 3853	Auditioning	3
TH 3933	World Theatre History After 1800 (H)	3
General Education course		3
	Hours	**16**
Senior		
Fall		
TH 3320	Performance Lessons II	1
TH 3373	Acting III - Shakespeare	3
TH 4423	Professional Preparation for Performance	3
ENGL 4723	Studies in Shakespeare (H)	3
TH Elective		3
General Education or Elective course		3
	Hours	**16**
Spring		
TH 4990	BFA Capstone	1
TH 4953	Directing	3
TH 3633	Diverse American Drama (DH)	3
DANC 3002	Ballet II	2
TH Elective		3
	Hours	**12**
	Total Hours	**120**

Theatre (TH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Clarissa Bonner 405-744-6146

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 17

Code	Title	Hours
Minor Requirements		
TH 2413	Introduction to Staged Entertainment (H)	3
Select 3 hours of the following:		3
TH 2563	Script Analysis	
TH 3633	Diverse American Drama (DH)	
TH 3923	World Theatre History Before 1800 (H)	
TH 3933	World Theatre History After 1800 (H)	
Select a minimum of two 1-hour practica		2
Select nine additional hours approved by the department head		9
Total Hours		**17**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Theatre, BA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
TH 3923	World Theatre History Before 1800 (H) [1]	3
TH 3933	World Theatre History After 1800 (H) [1]	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
Arts & Humanities		
ENGL 3933	Shakespeare (H)	3
or ENGL 4723	Studies in Shakespeare (H)	
3 additional hours from:		3
ENGL 3263	Film & TV Criticism	
ENGL 3363	Readings in Drama (H)	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3453	History of American Film (H)	
ENGL 3463	History of International Film (GH)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 4263	Moving Image Aesthetics (H)	
ENGL 4350	Contemporary International Cinema	
ENGL 4450	Culture and the Moving Image	
Select 3 additional upper-division hours (not TH or DANC)		3
See note 2.a.		
Natural & Mathematical Sciences		
See note 2.b.		3
Foreign Language		
See note 3.		9
Non-Western Studies		
At least one course		
See note 2.d.		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**22**
Major Requirements		
Minimum GPA 2.50. Minimum grade of "C" in all TH/DANC courses		
Core Requirements		
TH 1323	Acting I - Fundamentals of Acting	3
TH 1663	Stage Technology	3
TH 1673	Costume Technology	3
TH 2563	Script Analysis	3
TH 2753	Stage Management	3
TH 3633	Diverse American Drama (DH)	3
TH 4953	Directing	3
Select 6 hours of the following:		6
TH 1500	Run Crew Practicum (at least 2 hours)	
TH 2500	Production Crew Practicum	
TH 3500	Theatre Practicum II	
Emphasis		
Complete one Emphasis (p. 1969)		18
Hours Subtotal		**45**
Electives		
Select 13 hours		13
May need to include 6 hours upper-division general education outside major department (see note 2.c.), and 10 additional upper-division hours		
Hours Subtotal		**13**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

Emphasis

Performance Emphasis

Code	Title	Hours
TH 1333	Voice for the Actor	3
TH 2323	Acting II - Character Development	3
TH 2971	Stage Makeup	1
TH 3373	Acting III - Shakespeare	3
TH 3853	Auditioning	3
Select 1 of the following:		2
DANC 2002	Ballet I	
DANC 3002	Ballet II	
DANC 2102	Contemporary Modern Dance I	
DANC 2202	Jazz Dance	
DANC 2302	Tap I	
DANC 3102	Contemporary Modern Dance II	
DANC 3502	Musical Theatre Dance	
Select 3 hours of Theatre Electives (3 hours must be upper-division) (p. 1969)		3

Design/Technology Emphasis

Code	Title	Hours
TH 2553	Fundamentals of Theatrical Design	3
TH 2833	Transition to Professions in Design and Technology	3
Select two of the following:		6
TH 2593	Lighting Technology (New course, Lighting Technology)	
TH 3183	Theatrical Scenic Design	
TH 3323	Theatrical Sound Design and Technology	
TH 3593	Theatrical Lighting Design	
TH 3953	Theatrical Costume Design	
TH 4630	Topics in Design and Technology	
TH 4653	Advanced Stage Technology	
TH 4673	Advanced Costume Technology	
TH 4753	Advanced Stage Management	
TH 4983	Theatrical Scenic Painting	
Select 6 hours of Theatre Electives (6 hours must be upper-division) (p. 1969)		6

General Emphasis

Code	Title	Hours
TH 1333	Voice for the Actor	3
TH 2553	Fundamentals of Theatrical Design	3
TH 2833	Transition to Professions in Design and Technology	3
or TH 3853	Auditioning	
Select 9 hours of Theatre Electives (7 hours must be upper-division) (p. 1969)		9

Theatre Electives

Code	Title	Hours
Performance		
TH 1333	Voice for the Actor	3
TH 2213	Dialects and Accents for Stage and Screen	3
TH 2323	Acting II - Character Development	3
TH 2633	Movement for the Actor	3
TH 3343	Acting for Musical Theatre	3
TH 3373	Acting III - Shakespeare	3
TH 3433	Acting for the Camera	3
TH 3530	Topics in Performance	1-3
TH 3843	Musical Theatre Scene Study	3
TH 3853	Auditioning	3
TH 4303	Ensemble Theatre	3
TH 4423	Professional Preparation for Performance	3
TH 4990	BFA Capstone (requires consent of instructor)	1
Select one of the following:		2
DANC 2002	Ballet I	
DANC 3002	Ballet II	
DANC 2102	Contemporary Modern Dance I	
DANC 2202	Jazz Dance	
DANC 2302	Tap I	
DANC 3102	Contemporary Modern Dance II	
DANC 3502	Musical Theatre Dance	
Design/Technology		
TH 2553	Fundamentals of Theatrical Design	3
TH 2833	Transition to Professions in Design and Technology	3
TH 2971	Stage Makeup	1
TH 3183	Theatrical Scenic Design	3
TH 3323	Theatrical Sound Design and Technology	3
TH 3400	Upper-Division Projects	1-3
TH 3593	Theatrical Lighting Design	3
TH 3953	Theatrical Costume Design	3
TH 4403	Senior Honors Project (requires consent of instructor)	3
TH 4630	Topics in Design and Technology	1-3
TH 4653	Advanced Stage Technology	3
TH 4673	Advanced Costume Technology	3
TH 4983	Theatrical Scenic Painting	3

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and

Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.
4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic adviser prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
TH 1323	Acting I - Fundamentals of Acting	3
TH 1663 or TH 1673	Stage Technology or Costume Technology	3
TH 2563	Script Analysis	3
TH 1500	Run Crew Practicum	1
General Education courses		3
	Hours	**14**
Spring		
TH 1673 or TH 1663	Costume Technology or Stage Technology	3
TH 1333	Voice for the Actor	3
TH Elective	Based on emphasis. TH 2633 encouraged for Performance.	3
General Education courses		7
	Hours	**16**
Sophomore		
Fall		
TH 1500 Run Crew Practicum		1
1713 First Semester Foreign Language		3
TH Course based on emphasis	TH 2323 required for Performance	3
General Education and Major courses		8
	Hours	**15**
Spring		
TH 2833 or TH 3853	Transition to Professions in Design and Technology or Auditioning	3
TH 3633	Diverse American Drama (DH)	3

TH 1500 or TH 2500 or TH 3500	Run Crew Practicum or Production Crew Practicum or Theatre Practicum II	1
1813 Second Semester Foreign Language		3
General Education courses		5
	Hours	**15**
Junior		
Fall		
TH 3923	World Theatre History Before 1800 (H)	3
ENGL 3933	Shakespeare (H)	3
TH 1500 or TH 2500 or TH 3500	Run Crew Practicum or Production Crew Practicum or Theatre Practicum II	1
2000-level Foreign Language		3
General Education and Major courses		5
	Hours	**15**
Spring		
TH 3933	World Theatre History After 1800 (H)	3
TH 4753	Advanced Stage Management	3
TH 1500 or TH 2500 or TH 3500	Run Crew Practicum or Production Crew Practicum or Theatre Practicum II	1
College and Elective courses		8
	Hours	**15**
Senior		
Fall		
Major and Elective courses		15
	Hours	**15**
Spring		
TH 1500 or TH 2500 or TH 3500	Run Crew Practicum or Production Crew Practicum or Theatre Practicum II	1
Major, College, and Elective courses		14
	Hours	**15**
	Total Hours	**120**

COLLEGE OF EDUCATION AND HUMAN SCIENCES

College Administration

Jon Pedersen, PhD—Dean
Stephen Clarke, PhD—Senior Associate Dean for Research, Graduate Studies and Faculty Affairs
Gina Peek, PhD—Associate Dean for Extension and Engagement
Darius Prier, PhD—Associate Dean for Strategic Initiatives and Public Impact
Adrienne Sanogo, PhD—Associate Dean for Academic Affairs

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The College of Education & Human Sciences (EHS) are a group of service-minded faculty, staff, students and partners who enhance lives through innovative research, teaching, and engagement. We are committed to the promotion of diversity in the broadest sense. We highly value the dignity and worth of individuals inclusive of their gender, race, ethnicity, nationality, sexual orientation, age, physical and mental abilities, religious beliefs, socioeconomic class, and other identities. Valuing diversity also extends to diversity of thought and perspective. We promote and create a dynamic community for personal transformation and social change with an atmosphere of respect and trust in which individuals explore, discuss, and express their beliefs with one another.

Accreditation

In the College of Education & Human Sciences, we have a number of accredited programs. The Office of Educator Support (OES), which serves the College of Education and Human Sciences, the Ferguson College of Agriculture, and the College of Arts and Sciences, is accredited as an NCATE Legacy Site; the unit adheres to the Council for the Accreditation of Educator Prep (CAEP) standards at the national level and the Office of Educator Quality and Accountability (OEQA) standards in Oklahoma. OSU successfully renewed its accreditation by CAEP/OEQA in 2022. Each OES program area is accredited as well. In Secondary Education the Social Studies Education options are recognized by the National Council for the Social Studies (NCSS) Specialized Program Area (SPA). The English Education option is recognized by the National Council for the Teaching of English (NCTE) SPA, and the Foreign Language Education option is recognized by the American Council on the Teaching of Foreign Languages (ACTFL) SPA. The Mathematics Education option is recognized by the National Council of Teachers of Mathematics (NCTM) SPA and the Science Education option is recognized by the National Science Teachers Association (NSTA) SPA. The Commission for Educator Quality and Accountability through OEQA has approved the following initial certification programs: Early Childhood Education, Elementary Education, Family and Consumer Sciences Education, and the Art Education certification pathway. For advanced certification programs, OEQA has approved the master's in Education Technology School Library-Media option, and the Reading & Literacy Education (Reading Specialist) masters. The Educational Leadership master's (building level) and doctoral (district level) programs are recognized by the National Policy Board for Educational Administration (NPBEA) under Educational Leadership Constituent Council (ELCC) standards, now called the National Educational Leadership Preparation (NELP) standards. The School Psychology program is recognized by the National Association of School Psychologists (NASP) SPA and accredited by the American Psychological Association (APA). The master's Counseling Program with options in Mental Health Counseling and School Counseling is accredited by the Council for Accreditation of Counseling and Related Education Programs (CACREP). The Counseling Psychology doctoral program is accredited by the American Psychological Association (APA). The School Administration EdD, the Educational Administration Ph.D., and the Master of Science in School Administration are full voting members of the University Council for Educational Administration (UCEA), a member organization of the National Policy Board for Educational Administration (NPBEA).

The Child Development Laboratory is licensed by the Oklahoma Department of Human Services (DHS) and has received a Five Star Differential Quality Certification. The Child Development Laboratory is also accredited by the National Association for the Education of Young Children (NAEYC). The Marriage and Family Therapy program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). The Recreational Therapy Program is accredited by the Committee on Accreditation of Recreational Therapy Education (CARTE) through the Commission on Accreditation of Allied Health Education Programs (CAAHEP), which is accredited by the Council on Higher Education Accreditation (CHEA). The BSN and RN to BSN Nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The Didactic Program in Dietetics and the Dietetic Internship at OSU are both currently granted accreditation until 2028 by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics. The Council for Interior Design Accreditation (CIDA) has accredited the undergraduate interior design program since 1984. The pre-production and the production management apparel curricula are endorsed by the American Apparel and Footwear Association (AAFA) Education Foundation, making it one of only 13 approved programs in North America. The Fashion Design and Production and Fashion Merchandising programs are accredited by the Textile and Apparel Programs Accreditation Committee (TAPAC), one of only three schools accredited in the United States.

The Patricia Kain Knaub Center for Student Success & Watson Family Center for Student and Career Development

The Patricia Kain Knaub Center for Student Success and Watson Family Center for Student and Career Development provide welcoming entry points and continuing resources for integrated academic programming and student services. The Centers serve as leaders within the OSU system and to education and human sciences academic units nationally to elevate academic advising, the first-year experience, leadership development, student engagement and career development through purposeful and integrated programming and support services that develop students into active intentional learners. The Centers offer the following comprehensive and integrated services to undergraduate students in the College of Education and Human Sciences:

- Services to prospective students and their families that clearly articulate College of Education and Human Sciences academic programs and related diverse learning opportunities.
- Developmental academic advising services, emphasizing a student-centered, holistic approach.

- First-year experience initiatives to facilitate successful transition of both high school students and transfer students to a large university and into their new academic college home.
- Deliberate leadership development and coaching through first- and second-year experience courses (UNIV 1111 and EDHS 3111), Emerging Leaders initiatives, Ambassador peer mentors, CEHS Student Council, our residential Living Learning Program, and other intentional student organization activities.
- Integrated career development throughout both curricular and co-curricular experiences to effectively develop career readiness skills and link students' education with their career goals and destinations.

Student and Career Development

The Watson Family Center for Student and Career Development (106 Willard Hall) partners with students to support and connect them with success resources and services beginning with their first interaction with the College. The Watson Center is the primary welcome point and informational resource for every prospective student and accompanying family member connecting to the College. Prospective student coordinators and student recruitment assistants help future students learn about academic programs and student experiences in the College of Education and Human Sciences through individual appointments, facility tours, and other connection activities.

For current students in the College of Education and Human Sciences, the Watson Center's student and career development coordinators facilitate and lead purposeful initiatives to cultivate each student's potential and empower their learning and success throughout their college experience; resources, programs, and activities holistically champion student well-being, personal responsibility, self-efficacy, and pursuit of purpose. All student and career development coordinators are certified Global Career Development Facilitators (GDCF) or Certified Career Services Professionals (CCSP), who guide students in exploring diverse educational and career pathways, testing career possibilities of interest, pursuing personal growth and leadership development opportunities, developing a sense of community, and connecting with academic, professional and personal support resources and assistance. We build relationships, act, and advocate for student success. Specifically, the staff of the Center lead initiatives such as our residential Living Learning Program; the Ambassador peer mentoring program; Emerging Leaders Alliance leader development program; student access to career-related assessments, such as MBTI, Strong Interest Inventory, and Clifton StrengthsFinder; and workshops and programs to enhance students' professional presence in person, in print, and online, to name a few.

Academic Advising

The Patricia Kain Knaub Center for Student Success (101 Nancy Randolph Davis) provides developmental advising to undergraduate students (sophomores, juniors, seniors and T2 transfer students) utilizing a holistic approach that fosters the development of the whole student who is informed, empowered, and responsible. Incoming freshmen and T1 transfer students receive academic advisement from the Office of Student Success. Professional academic advisors and students form collaborative partnerships with shared responsibilities. Students are connected with a major specific advisor who specializes in their chosen field of study. With the goal of constructing meaningful academic plans which are compatible with life goals, advisors guide students toward degree completion, navigating University policies and procedures. Our dedicated staff mentor, encourage and ultimately celebrate students who overcome challenges while pursuing degrees.

The Center enhances student learning by maximizing student use of University academic support resources and encouraging co-curricular involvement. Persistence toward educational and career goals, and timely graduation, are our goals for each student. We are here to be their advocate and help them connect, learn, grow, thrive, and achieve.

The requirements for the degree being sought are made known to the student when he/she/they first enroll(s) at Oklahoma State University through the Office of Student Success. While the curriculum may change before a student graduates, a student who makes normal progress toward graduation (no more than two years beyond the normal four-year bachelor's degree requirements) will be held responsible for the degree requirements at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or delay graduation.

Scholarships

The College of Education and Human Sciences offers a number of scholarships for undergraduate and graduate students. College of Education and Human Sciences scholarship applications are typically due for continuing students in December and scholarship awards are announced in March for the coming academic year. Freshmen and first-year transfer student scholarships are selected during the fall and spring semesters to students entering Education and Human Sciences in the following fall semester. Criteria for and the amount of the scholarship awards vary. Visit https://education.okstate.edu/scholarships/ for more information. College of Education and Human Science students are also encouraged to apply for scholarships available through OSU's Office of Scholarships and Financial Aid (https://go.okstate.edu/scholarships-financial-aid/index.html (https://go.okstate.edu/scholarships-financial-aid/)).

High School Preparation

Students are expected to satisfy the high school curriculum requirements as determined by the Oklahoma State Regents for Higher Education. It is recommended that students be involved in clubs and organizations as well as have had some experiences working with children and youth, or other experiences related to their chosen fields.

Admission Requirements

Freshman students are admitted to the College of Education and Human Sciences consistent with the criteria published for admission to the University. Criteria for students wishing to transfer into the College of Education and Human Sciences from another institution or another college at OSU must have a minimum retention GPA as determined by the academic unit and based on the University graduation and retention grade-point average policy. See transfer admission requirements on degree requirement sheets for details as some program requirements differ from the table below.

Total Hours Attempted	Minimum GPA required
Fewer than 31	1.70
31 or more	2.00

For prospective/current students desiring to enter the Aerospace Administration and Operations: Professional Pilot degree program, a secondary application is required for competitive consideration for the limited entry program. Prospective students gain access to the secondary application through their admissions application portal after selecting the Professional Pilot program as their intended major. Current students gain access to the secondary application through https://

education.okstate.edu/departments-programs/educational-foundations-leadership-aviation/aviation-space/professional-pilot-secondary-application.html. Applications are due on November 1 and decisions are announced by January 1. Criteria considered include high school core GPA and/or college GPA, ACT or SAT exam score, and previous flight experience. Up to 85 students are selected to enter the Professional Pilot program each fall.

Prospective/current students planning to complete OSU's professional Nursing (BSN) degree program are required to complete a competitive secondary application process for admission into the professional Nursing program as they near completion of 59 college credit hours of course prerequisites. Nursing prerequisite coursework and the competitive secondary application process are detailed at https://education.okstate.edu/departments-programs/community-health-sciences-counseling-psychology/nursing/bsn-admission-prerequisite-information.html. Prospective/current students may be admitted or change their major to the nursing major in accordance with the College of Education and Human Sciences admission requirements described above. However, prospective/current students nearing completion of the 59 credit hours of required nursing prerequisite courses must also complete the competitive secondary application process and be admitted into the professional Nursing program to advance into nursing laboratories, simulations and clinical experiences required to complete the Nursing (BSN) degree. Fifty students are admitted to the professional Nursing program during each secondary application cycle. Students not selected to advance into the professional Nursing program will be advised of alternative educational options, including using earned coursework to complete a Pre-Nursing Undergraduate Certificate and/or changing their academic path to another human health-related degree plan of interest.

For prospective and/or current students desiring to transfer into the online Nursing, RN to BSN degree program, an associate's degree in nursing, a valid RN license, and course prerequisites as listed on https://education.okstate.edu/departments-programs/community-health-sciences-counseling-psychology/nursing/admission-prerequisite-information (https://education.okstate.edu/departments-programs/community-health-sciences-counseling-psychology/nursing/rn-bsn-admission-prerequisite-information.html), are required for full program admission through a secondary applicant review process completed by program faculty. Prospective Nursing, RN to BSN students who do not meet the prerequisite academic background and/or licensure requirements but who have been accepted to the program through the program's secondary applicant review process may enroll in the Nursing, RN to BSN major but will be limited in their course selection until all program prerequisites and requirements for full admission are completed.

Students pursuing degree options in Applied Exercise Science: Sport and Coaching Science, Recreation and Athletic Management, Interior Design, Fashion Merchandising, and Apparel Design and Technology are required to maintain a 2.00 GPA. Students pursuing a degree in Public Health and Applied Exercise Science: Strength and Conditioning are required to maintain a 2.75 or higher GPA. Students pursuing a degree in Applied Exercise Science: Pre-Professional are required to maintain a 3.00 GPA. All other programs require a 2.50 GPA.

For continuing enrollment in good standing, the Office of Educator Support and some other programs require a minimum of 2.50 GPA for admission to Professional Education, student teaching and graduation. This requirement is consistent with state standards for students in the state of Oklahoma who complete professional education programs and seek certification.

Requests from students seeking readmission after having been placed under probation/suspension should be submitted to the Patricia Kain Knaub Student Success Center in the College of Education and Human Sciences and will be reviewed by the Director of Student Academic Services prior to readmission. All student grades are reviewed at the end of each semester to determine whether appropriate academic progress is being made.

For graduation, with recommendation for Certification in Professional Education, the following minimum GPAs are required:

1. a 2.50 overall GPA;
2. a 2.50 GPA in the Major Requirements;
3. a 2.50 GPA in Professional Core Requirements; and
4. where noted, a 2.50 GPA in the College/Departmental Requirements.

The student must earn minimum grades of "C" or "P" in each course in the Major Requirements, the Professional Core Requirements, and where noted, the College/Departmental Requirements. The student must earn grades of "C" or "P" in all sections of observation (lab and clinical experience) courses and clinical practice for recommendation for Certification.

Academic Programs

Undergraduate Programs

The Bachelor of Science Degrees within the College of Education and Human Sciences are offered by three departments and four schools. The majors are:

- Aerospace Administration & Operations (AAO), with options in aerospace security, aviation management, professional pilot, and technical service management.
- Applied Exercise Science (AES), with options in pre-professional, strength & conditioning, and sport & coaching science.
- Apparel Design and Technology (ADT).
- Early Child Care and Development (ECCD).
- Elementary Education (ELEM).
- Fashion Merchandising (FM).
- Human Development and Family Science (HDFS), with options in child and family services, early childhood education, and family and consumer sciences education.
- Interior Design (ID).
- Nursing (NRBS): RN to BSN completion program.
- Nursing (BSN): Bachelor of Science in Nursing
- Nutritional Sciences (NSCI), with options in allied health, dietetics, human nutrition/premedical sciences, and public health nutrition.
- Public Health (PH), with options in community health and exercise & health.
- Recreation and Athletic Management (RAM), with option in recreation management.
- Recreational Therapy (RT), with options in Pre-Professional Occupational Therapy and Recreational Therapy.
- Secondary Education (SCED), with options in English, mathematics, science, and social studies (psychology/sociology or world history/geography).

Academic Units in the College of Education and Human Sciences offer minors in the following areas: aerospace security, aviation management, child development, creativity studies, gerontology, human services, learning and motivation, nutritional sciences, pre-counseling, public health, public school support specialist for children at-risk, recreation management, special education, sports and coaching science, and visual merchandising. Undergraduate certificates are available in digital design in design & merchandising, fashion design, fashion design: digital product creation, instructional design, learning & motivation, post-baccalaureate in dietetics, pre-nursing, product development for apparel, public health and special education.

Graduate Programs

Graduate study is available in all academic departments/schools. The Master of Science degree (MS) may be earned in the following areas: aging studies, aviation and space, counseling (options in mental health counseling and school counseling), counseling psychology, dietetics, design and merchandising (options in apparel design and textile science, digital design, interior design, and merchandising), educational leadership studies (options in college student development, higher education, school administration and workforce and adult education), educational psychology (options in educational psychology, research, evaluation, measurement & statistics, and school psychometrics), educational technology (options in educational technology and school library media), family and community services, family and consumer sciences education, family financial planning, health and human performance (options in applied exercise science, health promotion, and physical education), human development and family science (options in aging sciences, applied human services, developmental and family sciences, early childhood education, and marriage and family therapy), nutritional sciences (options in nutrition, dietetics practice and dietetics research), recreation management and recreational therapy, and teaching, learning and leadership (options in curriculum & leadership studies, gifted and talented education, K-12 education, mathematics/science education, reading & literacy, special education, and workforce & adult education).

The Specialist in Education degree (EdS) may be obtained in educational administration, language, literacy and culture education, and school psychology. The Doctor of Education degree (EdD) may be earned in aviation and space education, and school administration, while the Doctorate of Philosophy degree (PhD) may be earned in the following areas: community health sciences, counseling psychology, curriculum studies (options in college curriculum and teaching, curriculum and leadership, and international and peace curriculum), education (options in learning, design and technology, literacies and language arts education, mathematics education, science education, social foundations of education, special education, and workforce and adult education), educational leadership and policy studies (options in educational administration and higher education), educational psychology (including research methods, evaluation and statistics), human development and family science, health and human performance, health, recreation and human performance (options in health and human performance, and recreation services), nutritional sciences, and school psychology.

Graduate certificates are available in 3D fashion design/digital product creation, aging studies, aviation/aerospace administration, building level leadership, college teaching, comparative and international education, developmental disabilities, dietetics, digital design in design and merchandising, district level leadership, educational and psychological measurement, effective teaching in secondary schools, effective teaching in elementary schools, elementary mathematics specialist, facilitating career development, family financial planning, fashion merchandising, hidden student populations, infant mental health, K-12 stem educator, learning and motivation, online teaching, principal certification (non-degree seeking), program evaluation, recreation and leisure management, school library media certification, special education, substance abuse counseling, statistical methods & analyses in education & behavioral sciences, and workforce and adult education.

Online Programs

The College of Education and Human Sciences Online Education office provides support services for courses using a variety of delivery methods to serve diverse student needs. Web-based courses and other distance delivery methods serve students who are unable to access traditional educational offerings. As a member of the Innovative Digital Education Alliance (IDEA), the College of Education & Human Sciences Online Education office provides support services for online master's programs in family financial planning, family and community services, family and consumer sciences education, aging studies, and dietetics, as well as an online bachelor's program in early child care and development. In addition to the Innovative Digital Education Alliance programs, we offer Masters degrees in aviation and space, curriculum and leadership, digital design, higher education, school library media, educational technology, educational psychology, reading and literacy education, and special education. In addition to our master's programs, we have an undergraduate RN to BSN nursing degree, university studies, and online BS in elementary education; an educational doctorate in Aviation and Space, and a PhD in health, leisure and human performance-leisure studies option. The college also offers online graduate certificates in the following areas: aging studies, aviation/aerospace administration, digital design in design and merchandising, effective teaching in elementary schools, effective teaching in secondary schools, elementary mathematics specialist, facilitating career development, family financial planning, fashion merchandising, online teaching, school library certification and workforce and adult education.

Special Academic Programs

OSUTeach

The OSUTeach program is a collaboration between the College of Education and Human Sciences and the College of Arts and Sciences and is designed to recruit and train new secondary teachers in science and mathematics. OSUTeach students begin supervised teaching in K-12 classrooms during their first semester in the program and continue these field experiences throughout their coursework, which culminates with apprentice teaching. Students can earn both a Bachelor of Science degree in Secondary Education (in Science or Mathematics Education) and a Bachelor of Science in one of the four-year STEM degree options: biology, chemistry, geology (earth science and/or physical science), mathematics, physics, and zoology, which lead to teacher certification at the secondary level.

Bachelor of University Studies

The College of Education and Human Sciences utilizes the Bachelor of University Studies degree program along with the other colleges in the University. Unique career objectives of students may be met by working with a faculty committee and academic advisors in selecting a specially-tailored program that ultimately leads to a degree.

The Honors College

Outstanding students in the College of Education and Human Sciences who meet the requirements of the Honors College may earn The Honors

College degree while completing their undergraduate degree in this college. For more information, please refer to the Honors College information in this Catalog.

Tutoring Program

The Randall and Carol White Reading and Math Center within the School of Teaching, Learning and Educational Sciences offers elementary education undergraduate and graduate students a faculty-supervised opportunity to tutor school-age children interested in improving their reading and math skills.

Professional Development Conferences

Additional outreach conferences may include the Oklahoma Association of Elementary School Principals, the Oklahoma Association of Environmental Educators; the Oklahoma Education Association Annual Leadership Academy; and the Adult Basic Education Conference.

Alumni Association

The College of Education and Human Sciences sends an annual magazine to approximately 5,000 active members and communicates news and announcements to alumni through a monthly electronic newsletter. The Alumni Society seeks to connect and engage alumni and friends to the college by hosting events throughout the year.

General Education Requirements

All undergraduate degrees in the College of Education and Human Sciences require a minimum of 40 semester hours in general education that include the following: English Composition, quantitative thought and logical reasoning, United States history and government, reasoning in the natural sciences, exploring society & human behavior, understanding humanities-human heritage & cultures, diversity, global cultural competency and electives. All degrees are consistent with the current University General Education requirements and the Oklahoma State Regents for Higher Education standards.

Departmental Clubs and Honor Societies

American Association of Textile Chemists and Colorists
American Society of Interior Designers Student Chapter
College of Education & Human Sciences Ambassadors
College of Education & Human Sciences Graduate Student Association
College of Education & Human Sciences Program for Learning, Adjustment, and Connection Excellence (CEHS P.L.A.C.E.)
College of Education & Human Sciences Student Council
Early Childhood Education Club
Educational Psychology Student Society
Educational Media and Technology Student Association
Elementary Educators of Tomorrow
Family and Consumer Sciences Education Club
Flying Aggies
Graduate Students in Nutritional Sciences
Health Promotion Club
Human Development and Family Science Club
International Facility Management Association Student Chapter
International Interior Design Association Student Chapter
Kappa Delta Pi (education honor society)
Kappa Kappa Iota
Master's Counseling Society
Merchandising and Apparel Design Association
Nutritional Sciences Club
Omicron Tau Theta
OSU National Science Teachers Association Student Chapter
Phi Epsilon Kappa (health, physical education, recreation management and recreational therapy honor society)
Pre-Physical Therapy Club
Rho Phi Lambda
Recreation Management Club
Recreational Therapy Majors Club
School Psychology Graduate Student Organization
Sigma Phi Omega (gerontology honor society)
Student Oklahoma Education Association
U.S. Green Building Council

Extension, Engagement, Continuing Education and International Programs

Extension, Engagement, Continuing Education, and International Programs work together to facilitate the delivery of non-credit coursework and academic programs. Consistent with the OSU mission and in conjunction with faculty and academic programs, Extension, Engagement, Continuing Education and International Programs provide support, services and programs to meet the professional needs of educators advancing the state of Oklahoma and the nation while promoting and facilitating engagement of the college and university with state, national and international communities.

The goals of the unit are to reflect the expertise and promote the accomplishments of the College of Education and Human Sciences faculty and staff and to foster activities and learning that develop faculty and students for multiple futures. Specifically, these offices work to:

- facilitate international degree credit programs and non-degree programs which enable students and professionals to pursue their academic goals in ways that fit their schedule and personal situations;
- extend off-campus international degree programs to individuals pursuing degrees and professional certifications through a variety of different methods;
- provide opportunities for international experiences linking campus faculty and students to a wide range of global locations through travel trips, student teaching and cohort programs;
- assist workforce development initiatives through non-credit educational opportunities for employed adults in educational and governmental environments;
- coordinate professional conferences for the educational community, including school professionals and administrators, educational associations and state organizations; and
- offer community development and cultural enrichment opportunities.

Building on its land-grant heritage, Oklahoma State University's Extension, Engagement, Continuing Education and International Programs Unit promotes learning, advances knowledge, enriches lives, and stimulates economic development through teaching, research, extension, outreach and creative activities. The non-credit arm of the College of Education and Human Sciences supports the following programs:

OLLI @ OSU is a lifelong learning college geared toward those 50 and older, offering a wide variety of liberal arts classes and workshops in Stillwater, Tulsa, Oklahoma City and Bartlesville. OLLI's mission is to provide continuing education for seniors through classes, travel, and social enrichment activities. Founded in 2006 with a grant from the Bernard Osher Foundation and funding from the university, OLLI @ OSU

joined a network of over 100 Osher Lifelong Learning Institutes, housed at colleges and universities throughout the United States. “Learning for the joy of learning” is the guiding principal of this community of learners, where there are no tests, and no grades but the opportunity for people of all backgrounds to keep active and informed. Classes are offered three semesters each year. olli@okstate.edu

The Continuing and Office of Educator Support provides non-credit course programming, certificates programs, professional education, and support for camps, conferences, and workshops affiliated with professional units throughout the College of Education and Human Sciences. osuehse@okstate.edu

Global and Community Engagement provides support to faculty, staff, students, and community partners. Supports the University Network on Community Engagement (UNCE) in their award-winning engagement and service-learning activities throughout the university. International Programs provides support for Study Abroad competencies for the college, serving graduate, undergraduate, and pre-professional students, expanding OSU’s mission beyond the United States.

Academic Areas

- Design and Merchandising (p. 1979)
- Human Development and Family Science (p. 2003)
- Nutritional Sciences (p. 2044)
- Office of Educator Support (p. 2070)
- School of Community Health Sciences, Counseling and Counseling Psychology (p. 2076)
- School of Educational Foundations, Leadership and Aviation (p. 2104)
- School of Kinesiology, Applied Health and Recreation (p. 2160)
- School of Teaching, Learning and Educational Sciences (p. 2197)

Undergraduate Programs

- Aerospace Administration and Operations: Aerospace Security, BS (p. 2146)
- Aerospace Administration and Operations: Aviation Management, BS (p. 2149)
- Aerospace Administration and Operations: Professional Pilot, BS (p. 2152)
- Aerospace Administration and Operations: Technical Service Management, BS (p. 2154)
- Apparel Design and Technology, BS (p. 1989)
- Applied Exercise Science: Pre-Professional, BS (p. 2180)
- Applied Exercise Science: Sport and Coaching Science, BS (p. 2183)
- Applied Exercise Science: Strength and Conditioning, BS (p. 2185)
- Early Child Care and Development, BS (p. 2032)
- Elementary Education, BS (p. 2236)
- Fashion Merchandising, BS (p. 1996)
- Human Development and Family Science: Child and Family Services, BS (p. 2034)
- Human Development and Family Science: Early Childhood Education, BS (p. 2037)
- Human Development and Family Science: Family & Consumer Sciences Education, BS (p. 2040)
- Interior Design, BS (p. 1999)
- Nursing, BSN (p. 2092)
- Nursing: RN to BSN, BS (p. 2094)
- Nutritional Sciences: Allied Health, BS (p. 2058)
- Nutritional Sciences: Dietetics, BS (p. 2061)
- Nutritional Sciences: Human Nutrition/Pre-Medical Sciences, BS (p. 2063)
- Nutritional Sciences: Public Health Nutrition, BS (p. 2066)
- Public Health: Community Health, BS (p. 2100)
- Public Health: Exercise and Health, BS (p. 2102)
- Recreation and Athletic Management: Recreation Management, BS (p. 2187)
- Recreational Therapy, BS (p. 2191)
- Recreational Therapy: Pre-Professional Occupational Therapy, BS (p. 2193)
- Secondary Education: English - Alternative Certification, BS (p. 2240)
- Secondary Education: English, BS (p. 2242)
- Secondary Education: Mathematics, BS (p. 2245)
- Secondary Education: Science, BS (p. 2248)
- Secondary Education: Social Studies - Alternative Education, BS (p. 2254)
- Secondary Education: Social Studies, BS (p. 2256)

Minors

- Aerospace Administration and Operations: Aerospace Security (AAAS), Minor (p. 2145)
- Aerospace Administration and Operations: Aviation Management (AAAM), Minor (p. 2148)
- Aerospace Administration and Operations: Professional Pilot (AAPP), Minor (p. 2151)
- Aging Services (ASVC), Minor (p. 2030)
- Child Development (CHDV), Minor (p. 2031)
- Creativity Studies (CRST), Minor (p. 2156)
- Fashion Merchandising (FMER), Minor (p. 1995)
- Human Services (HSVC), Minor (p. 2043)
- Learning and Motivation (LEMO), Minor (p. 2158)
- Nutritional Sciences (NSCI), Minor (p. 2057)
- Pre-Counseling (PCOU), Minor (p. 2096)
- Public Health (PH), Minor (p. 2098)
- Public School Support Specialist for Children At-Risk (PSSC), Minor (p. 2239)
- Recreation Management (RM), Minor (p. 2190)
- Special Education (SPED), Minor (p. 2259)
- Sports and Coaching Science (SPCS), Minor (p. 2196)

Certificates

Undergraduate Certificates

- Digital Design in Design and Merchandising, UCRT (p. 1992)
- Fashion Design, UCRT (p. 1993)
- Fashion Design: Digital Product Creation, UCRT (p. 1994)
- Instructional Design, UCRT (p. 2157)
- Learning and Motivation, UCRT (p. 2159)
- Post-Baccalaureate in Dietetics, UCRT (p. 2069)
- Pre-Nursing, UCRT (p. 2097)
- Product Development for Apparel, UCRT (p. 2002)

- Public Health, UCRT (p. 2099)
- Special Education, UCRT (p. 2260)

Graduate Programs

- Apparel Design and Production, MS (p. 1987)
- Applied Exercise Science, MS (p. 2178)
- Applied Human Services, MS (p. 2027)
- Aviation and Space Education, EdD (p. 2140)
- Aviation and Space, MS (p. 2140)
- College Interdisciplinary, EdD (p. 2140)
- Counseling Psychology, PhD (p. 2090)
- Curriculum and Leadership Studies, MS (p. 2232)
- Curriculum Studies, PhD (p. 2232)
- Design, Housing and Merchandising, MS (p. 1987)
- Developmental and Family Science, MS (p. 2027)
- Dietetics, MS (p. 2054)
- Dietetics Research, MS (p. 2054)
- Early Childhood Education, MS (p. 2027)
- Educational Administration, EdS (p. 2140)
- Educational Administration, PhD (p. 2140)
- Educational Psychology, MS/PhD (p. 2140)
- Educational Research and Evaluation, MS (p. 2140)
- Educational Technology, MS (p. 2140)
- Elementary, MA (p. 2232)
- Family and Community Services, MS (p. 2027)
- Family and Consumer Sciences Education, MS (p. 2027)
- Family Financial Planning, MS (p. 2027)
- Foreign Language, MA (p. 2232)
- Gerontology, MS (p. 2027)
- Higher Education, MS (p. 2140)
- Higher Education, PhD (p. 2140)
- Human Development and Family Science, PhD (p. 2027)
- Interior Design, MS (p. 1987)
- K-12 Education, MS (p. 2232)
- Learning, Design and Technology, PhD (p. 2140)
- Leisure Studies, MS (p. 2178)
- Leisure Studies, PhD (p. 2178)
- Marriage and Family Therapy, MS (p. 2027)
- Mathematics Education, PhD (p. 2232)
- Math/Science Education, MS (p. 2232)
- Mental Health Counseling, MS (p. 2090)
- Merchandising, MS (p. 1987)
- Nutritional Sciences, PhD (p. 2054)
- Nutrition, MS (p. 2054)
- Professional Education Studies, PhD (p. 2232)
- Reading and Literacy, MS (p. 2232)
- Research and Evaluation, PhD (p. 2140)
- Retail Merchandising Leadership, MS (p. 1987)
- School Administration, EdD (p. 2232)
- School Administration, MS (p. 2232)
- School Counseling, MS (p. 2090)
- School Library Media, MS (p. 2232)
- School Psychology, EdS (p. 2232)
- School Psychology, PhD (p. 2232)
- School Psychometrics, MS (p. 2140)
- Science Education, PhD (p. 2232)
- Secondary Mathematics, MA (p. 2232)
- Secondary Science, MA (p. 2232)
- Social Foundations Education, PhD (p. 2140)
- Special Education, MS (p. 2232)
- Student Affairs, MS (p. 2140)
- Workforce and Adult Education, MS (p. 2232)
- Workforce and Adult Education, PhD (p. 2232)

Graduate Certificates

The College of Education and Human Sciences offers on-campus graduate certificates in the following areas: aviation/aerospace administration, building level leadership, college teaching, comparative and international education, developmental disabilities, dietetics, digital design in design and merchandising, district level leadership, educational and psychological measurement, effective teaching in secondary schools, effective teaching in elementary schools, elementary mathematics specialist, facilitating career development, fashion merchandising, hidden student populations, infant mental health, online teaching, program evaluation, recreation and leisure management, school library media certification, special education, substance abuse counseling, statistical methods & analyses in education & behavioral sciences, and workforce and adult education. The College of Education and Human Sciences offers online graduate certificates in 3D fashion design/digital product creation, aging studies, aviation/aerospace administration, digital design in design and merchandising, facilitating career development, fashion merchandising, family financial planning, hidden student populations, learning and motivation, and substance abuse counseling.

Design and Merchandising

The mission of the Department of Design and Merchandising (DM) is to be recognized leaders in technology and sustainable design in partnership with industry and community. Three undergraduate majors are available: Apparel Design and Technology, Interior Design, and Fashion Merchandising. Each option requires a summer internship between the junior and senior years. Both fashion programs are accredited by the Textile and Apparel Programs Accreditation Committee (TAPAC), one of only seven schools accredited in the United States. The undergraduate Interior Design program is accredited by the Council for Interior Design Accreditation (CIDA) and the program has achieved national ranking by the publication Design Intelligence.

Students in Apparel Design and Technology are preparing for careers in the apparel and sewn products industries. The program emphasizes the integration of design principles, construction methods, consumer preferences and technical design. Coursework includes principles of design, anthropometrics and pattern grading, apparel assembly and production, draping techniques, technical design and product lifestyle management, quality assurance, properties and performance evaluation of textiles, patternmaking, computer-aided design and technology, 3D Digital Design, along with a required internship helps students to acquire apparel industry experience. Students must pass the Proficiency Review Process at the end of their freshman year to be accepted into the Design Program. The American Apparel and Footwear Association (AAFA) Education Foundation has identified 13 affiliated schools who are teaching undergraduate curriculum required by the industry. OSU is one of the 13 schools in North America who is recognized with an AAFA-approved apparel program. Career opportunities include Apparel Designer, Technical Designer, Product Development Manager, Accessory Designer, Patternmaker, Textile Designer, Sourcing Manager, Quality Assurance Manager, Production Manager and Apparel Engineer.

Students in Interior Design are preparing for careers as professionals who assist businesses and families in planning and solving problems relative to the function and quality of interior living and working environments. Coursework includes fundamentals of design, design analysis, ergonomics, concept development, space planning and programming, universal design principles, computer-aided design (CAD) and related aspects of environmental design. Students must pass the Proficiency Review Process at the end of their freshman year to be accepted into the Professional Level Interior Design Program. Upon acceptance, students are expected to have their own laptop computer with sufficient capacity for graphics software used in the profession. Career opportunities include professional practice in interior design and architectural firms, lighting, design, and facility management, historic restoration and preservation, product design and sales management. The undergraduate Interior Design program is accredited by the Council for Interior Design Accreditation (CIDA) and helps to prepare student for top Interior Design jobs upon graduation.

Fashion is a $3 trillion global industry that offers some of the most diverse, inclusive, and rewarding career opportunities. Fashion Merchandising focuses on the business side of fashion, encompassing activities like trend analysis, visual communication, and leadership roles in retail, from boutiques to large corporate stores. Buyers and Planners ensure that customers find the right product at the right time in stock at stores and online. Visual Merchandisers, Stylists, and Web Content Editors enhance the presentation of fashion goods and the environments in which they are sold. A degree in Fashion Merchandising prepares students for exciting careers in product development, buying and planning, e-commerce, global sourcing, retail management, and visual merchandising. Our graduates are employed by leading global brands and enjoy unlimited opportunities for career advancement.

Students in all three majors will develop business management, communication, creative problem solving and administrative skills. Minors are available in Fashion Merchandising and Apparel Design and Technology.

Admission Requirements

Transfer students must meet the following minimum retention GPA requirements in order to be admitted to the DM undergraduate program:

Total Hours Attempted	Minimum GPA required
Less than 31 hours	2.00
31-45 hours	2.25
Over 45 hours	2.50

Courses

DM 1003 Design Theory and Processes for Design and Merchandising
Prerequisites: DM/DHM majors and declared DM/DHM minors only.
Description: Design elements, principles and processes applied to design and merchandising. Previously offered as DHM 1003.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1103 Basic Apparel Assembly
Prerequisites: DHM or DM major only or declared DHM or DM minor or HDFS (Family and Consumer Sciences Education option) major.
Description: Basic apparel assembly techniques. Problems including basic fit, spreading and cutting methods and equipment, and use and application of sewing equipment, including lock, chain, and overedge. Previously offered as CTM 1103 and DHM 1103.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1123 Graphics for Interior Design I
Prerequisites: DHM or ADT or FM or ID major.
Description: Drafting and visual communication techniques related to interiors. Previously offered as DHM 1123.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 1433 Fundamentals of the Fashion Industry
Description: An overview of variables affecting production and distribution of consumer goods; development of present structure in consumer products industries. Course previously offered as CTM 2433 and DHM 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 1993 Communications and Presentation Techniques for Apparel Design
Prerequisites: DM 1003 with a minimum grade of C.
Description: Creative communication methods and techniques, including a variety of media for two- and three-dimensional presentations in apparel design. Previously offered as DHM 1993 and DHM 2993.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 2003 Problem Solving Strategies
Description: Participatory problem solving in design and merchandising; critique of proposed solutions as a positive process of evaluation. Previously offered as DHM 2003
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2033 VR and AR for Social Change
Description: Focus on using and applying Virtual Reality (VR) and Augmented Reality (AR) technology through a multidisciplinary approach to solving current societal problems by applying social science practices with innovative technology. How to develop 3D content, and apply these components effectively in VR/AR, form teams, and develop VR projects proposed by current events and conditions of the world. Turn your creative ideas into useful applications. This is a beginner-level course and is open to all students. No prior coding or design experience is required.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 2073 Computer-Aided Design for Interior Design
Prerequisites: Permission of Instructor and Pass Proficiency Review and minimum grade of C in both DM 1123 and DM 2233.
Description: Computer-aided design and drafting for two-dimensional and three-dimensional interior systems. Previously offered as DHM 2073, DHM 3373 and HIDC 3373.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2103 Interior Design Studio I: Residential
Prerequisites: Permission of Instructor and Pass Proficiency Review and a minimum grade of C in DM 1123 and DM 2233 and MATH 1513 or MATH 1583 or MATH 1613 and ENGL 1113.
Description: Studio course utilizing the design process in the analysis and planning of residential environments using computer-aided and hand drafting techniques. Previously offered as DHM 2103, DHM 3263 and HIDC 3263.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2204 Intermediate Apparel Assembly
Prerequisites: DM 1103 with minimum grade of “C”.
Description: Development of skill in apparel assembly. Intermediate problems in fit, spreading, cutting, and sequencing of apparel assembly operations for lined garments, plaids, other special fabrics and closures. Course previously offered as DHM 2203, DHM 2204 and CTM 2203.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2212 Heritage of Dress I
Prerequisites: 3 credit hours of History.
Description: Survey of ancient to Baroque European modes of dress, as that clothing reflects the environment and cultural life of a people. Previously offered as DHM 2212.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2233 Graphics for Interior Design II
Prerequisites: DM 1123 with minimum grade of "C".
Description: Applied creative solutions to visual communication formats and media; free-hand sketching, informational graphics, rendering techniques for product and material illustrations, floor plans, elevations and 3-D room interiors/architectural detailing. Previously offered as DHM 2233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2243 Sustainability in the Fashion Industry
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of business strategies for a more sustainable fashion industry. Students will explore concepts and principles of sustainable fashion, examining sustainable sourcing, production methods, and the role of technology in advancing industry-wide sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2263 Interior Design Studio II: Small Scale Contract
Prerequisites: DM 2073 and DM 2103 with minimum grade of "C".
Description: Analysis and planning of small office, hospitality and retail environments with emphasis on materials, lighting, codes and accessibility using computer-aided 2D drafting and 3D modeling techniques. Previously offered as DHM 2263, DHM 3363 and HIDC 3363.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2302 Supervised Field Experience
Prerequisites: DM 2103 with minimum grade of "C".
Description: Field experience in specialized residential, commercial and institutional design with both historic and contemporary elements. Previously offered as DHM 2302.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2403 Research Methods
Prerequisites: MATH 1483 or MATH 1513, with minimum grade of "C".
Description: Qualitative and quantitative data collection methodologies for the fields of Apparel, Interior Design and Merchandising. Basic understanding of data analysis and use of data to guide managerial decision making. Previously offered as DHM 2403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 2423 Technology and Visual Communication for Merchandisers
Prerequisites: Fashion Merchandising majors and minors only. DM 1003 and DM 1433, both with a minimum grade of "C".
Description: The development of visual communication skills for marketing, promotional, and merchandising applications as well as personal branding utilizing industry-relevant technological practice. Previously offered as DHM 2423.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2444 Draping
Prerequisites: DM 2204 with "C" or higher and pass proficiency review.
Description: Interpretation of garment design developed through the medium of draping on dress forms. Previously offered as DHM 2443, DHM 2444, DHM 4243, and CTM 4243.
Credit hours: 4
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 2573 Textile Science (LN)
Description: Science principles as the basis for understanding fibers, the basic structure of yarns and fabrics. Relationships between the chemical composition of fibers and properties such as tensile strength, flammability, elasticity, moisture absorption, and dye affinity. Understanding science principles in relation to textile properties for evaluation of textile products. Recommended for education majors seeking knowledge to be used for innovative teaching of science principles in grades K-12. Required for all DHM majors. Previously offered as CTM 2573 AND DHM 2573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

DM 2913 Sewn Product Quality Analysis
Prerequisites: DM 1433 and DM 2573, both with minimum grade of "C".
Description: Sewn product manufacturing process with emphasis on evaluating product quality and its relationship to performance. Examined from the retailers', manufacturers', and consumers' perspectives. Course previously offered as DHM 2013 and DHM 2913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3014 Flat Pattern Design
Prerequisites: DM 2444 with minimum grade of “C” and pass proficiency review.
Description: Interpretation of dress design developed through the medium of flat pattern; introduction to pattern drafting. Course previously offered as CTM 3013 and DHM 3014.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3023 Computer-Aided Flat Pattern Design
Prerequisites: DM 3014 with minimum grade of "C" and pass proficiency review.
Description: Advanced apparel design problems using flat pattern and computer-aided design (CAD) techniques. Previously offered as DHM 3023.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3033 Material Culture
Prerequisites: DM 3303 or DM 3213 with a minimum grade of "C" or permission of instructor.
Description: An exploration of a variety of theoretical approaches toward understanding what objects mean. Psychological, sociological, economic, and other approaches are examined using culture theory models. Previously offered as DHM 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3043 Digital Product Creation
Prerequisites: DM 3023 with a final grade of "C" or higher
Description: Advance your 2D design skills with 3D digital creation. Understand the importance of the 3D software as it pertains to the apparel industry. Introduction to 3D software programs (BZW, CLO).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3053 Quality Analysis for Apparel Design
Prerequisites: DM/DHM or ADT or FM majors only, and DM 1433, DM 2204, and DM 2573, all with a minimum grade of "C".
Description: Evaluation of product quality relating to target market, materials, and construction. Previously offered as DHM 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3103 Anthropometry and Ergonomics in Design
Prerequisites: DM 2403 with minimum grade of "C".
Description: Methods and principles for representing body size, fit, accommodation, proxemics, ease and product specific functionality to apparel, merchandising and built environment design. Previously offered as DHM 3103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3123 Advanced Technology for Apparel Design
Prerequisites: DHM or DM majors only and DM 1993 and DM 3023, both with a minimum grade of "C".
Description: Building on CAD skills using software as applied to apparel design and production. Development of technical packages and specification materials. Previously offered as DHM 3123.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3173 Digital Design Communication
Prerequisites: DM 2073 with a minimum grade of "C".
Description: Introduction of digital media tools for 2D and 3D design visualization and presentation. Underlying concepts and techniques of computer applications for design communication. Previously offered as DHM 3173.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 3213 Heritage of Dress II (H)
Prerequisites: ENGL 1213 with minimum grade of "C" and 3 credit hours of history.
Description: Survey of historic modes of dress from the 18th to the 21st centuries, as that clothing reflects the environment and cultural life of a people, and change within the fashion industry. Previously offered as HIDC 3213 and CTM 3213 and DHM 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Human Heritage & Cultures

DM 3233 Heritage of Interior Design I (H)
Prerequisites: DM 2103, DM 2233 and ENGL 1213, all with a minimum grade of "C".
Description: Religious, civic, commercial, and domestic architecture and furnishings prior to and including the 18th Century with emphasis on the periods which have greatly influenced housing and interior design. Previously offered as HIDC 3233 and DHM 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Human Heritage & Cultures

DM 3263 Applications of Artificial Intelligence in Design
Description: This course explores the integration of Artificial Intelligence (AI) in design practices. Students will gain foundational knowledge in AI and its applications, engage with generative design, data-driven decision-making, and predictive analysis, and understand the ethical implications of AI. Through lectures, workshops, and projects, students will learn to leverage AI tools to enhance creativity, efficiency, and innovation in their work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3303 Materials and Finishes for Interior Design
Prerequisites: DM 2263 with a minimum grade of C and DM 2573 with a minimum grade of C.
Description: An overview and examination of interior materials and finishes. Previously offered as DHM 2303, DHM 3303 and HIDC 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3343 Interior Design Studio III: Interior Components and Construction Documents
Prerequisites: DM 2263 with minimum grade of "C".
Description: Studio course exploring the design, materials, construction and production of interior design components for small scale commercial projects using computer-aided and hand drafted documents and renderings for visualization of design solutions. Previously offered as DHM 2243, DHM 3243, DHM 3343, and HIDC 3243.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3423 Editorial Styling for Merchandisers
Prerequisites: DM 2423 with minimum grade of "C".
Description: The production of artful images and the editorial styling techniques that support this production. Create content for digital and print merchandising applications, with an emphasis on editorial layout and social media design. Previously offered as DHM 3422 and DHM 3423.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3433 Retail Strategies in the Digital Sector
Prerequisites: DHM or DM majors or declared DHM or DM Minors or by permission of instructor, DM 1433 and ECON 1113 or ECON 2103, all with a minimum grade of C.
Description: Study and application of retail merchandising in a virtual format. Emphasis on retail strategies and their impact on consumer experience in digital markets. Previously offered as DHM 3433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3443 Fashion Marketing Strategies
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of strategic approaches in fashion marketing, emphasizing effective promotion and positioning of fashion brands in a competitive marketplace. Students will learn how to develop and implement effective marketing strategies that drive consumer engagement and sales.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3453 Interior Design Studio IV: Environmental Design
Prerequisites: DM 3343 with minimum grade of "C".
Description: Exploration of the design factors and human performance criteria for lighting, acoustics, and thermal/atmospheric comfort and their applications in studio projects using computer-aided and hand drafted techniques. Previously offered as DHM 3253, DHM 3453 and HIDC 3253.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3463 Fashion Consumer Behavior
Prerequisites: DM 1433 with minimum grade of "C"
Description: The study of psychological and social factors influencing consumer purchasing decisions in the fashion industry. Students will explore theories of consumer behavior and trends to understand how fashion brands can effectively engage their audiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3533 Textile Surface Design
Prerequisites: DM 1003 and DM 2573 and DM 1993 or DM 2423, all with minimum grade of "C".
Description: Traditional and contemporary dyeing, printing, stitching, and other textile surface manipulation techniques are practiced in a portfolio of individual projects. Exercises in color theory and production inform textile design work. Aesthetic, methodological, and environmental tradeoffs are considered in relation to designing textile surfaces. Course previously offered as DHM 3533 and CTM 3533.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3553 Profitable Merchandising Analysis
Prerequisites: MATH 1483 or MATH 2103 or MATH 1513, all with minimum grade of "C".
Description: Relationship analysis of profit and loss statement. Retail mathematical calculations necessary to plan and control merchandising results, open-to-buy, mark-up, mark-down, turn-over, stock-sales ratio. Initial development of a six-month buying plan. Previously offered as DHM 3553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3563 Fashion Buying and Planning
Prerequisites: DM 3553
Description: Study of the principles and practices of fashion buying and planning, focusing on strategic retail acquisition, assortment management, and inventory optimization. Emphasis on consumer behavior analysis, trend forecasting, and the development of a 6-month buying plan to align purchasing decisions with seasonal trends and maximize profitability. Previously offered as DHM 3563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3823 Professional Practices for Interior Design
Prerequisites: DM 2263 with minimum grade of "C".
Description: Specific terminology, procedures, relationships and ethics pertaining to the organization and conduct of interior design practice globally. Previously offered as DHM 3823 and HIDC 3823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3853 Visual Merchandising
Prerequisites: "C" or better in DM 2423.
Description: Study and application of principles and practices in merchandise presentation for commercial purposes. Course previously offered as CTM 3853 and DHM 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 3881 Interior Design Pre-Internship Seminar
Prerequisites: DHM or DM majors only. DM 2073 and DM 3343 and DM 3823 and EDHS 1112 or EDHS 3112, all with minimum grade of "C", Junior standing, and 2.5 major GPA.
Description: Preparation for obtaining and completing a directed practical experience in a work situation in the interior design field. Previously offered as DHM 3881.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3991 Pre-Internship Seminar
Prerequisites: ADT/ADP option: DM 1003 or DM 2003 or DM 2573 and DM 3123. FMER/MERC option: DM 1003 and DM 2003 and DM 2573 and DM 3433. ID option: DM 2073 and DM 3343 and DM 3823. All options: DHM or DM majors only. EDHS 1112 or EDHS 3112 and 2.5 major GPA.
Description: Preparation for obtaining a directed practical experience in a work setting related to design or merchandising. Previously offered as CTM 3991 and DHM 3991.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3993 Global Sourcing Strategies
Prerequisites: ECON 1113 or ECON 2103 or ECON 2203 with minimum grade of "C" and Junior standing.
Description: Broad multi-disciplinary study of the soft goods industries in the global economy. Previously offered as DHM 4993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 3994 Professional Internship in Merchandising or Apparel Design and Production
Prerequisites: DHM or DM majors only and DM 3991 and (merchandising students) DM 3553 and DM 3853 or (apparel design and technology students) DM 3023 and DM 3123, all with minimum grade of "C" and EDHS 1112 or EDHS 3112.
Description: Directed practical experience in an approved work situation related to the fashion industry. Course previously offered as DHM 3994.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4010 Fashion Show Production
Description: Focus on fashion show production and promotion. Event management and public relation skills will be developed in the context of organizing a fashion show that highlights original student design work. Leadership and group interaction skills will be emphasized. Previously offered as DHM 4010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4011 Post-Internship Seminar
Prerequisites: DM majors only, DM 3994.
Description: Study and comparison of student work experiences. Individual student conferences, review of merchant supervisor reactions. Previously offered as CTM 4011 and DHM 4011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4013 Advanced Visual Communication for Merchandisers
Prerequisites: Grade of "C" or better in DM 3853, Fashion Merchandising majors or minors only.
Description: Advanced visual communication skills for marketing, promotional, and merchandising applications as well as personal branding utilizing industry-relevant technology practice. Previously offered as DHM 4013.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4023 Retail Analytics and Insights
Prerequisites: Grade of “C” or better in DM 3563
Description: Study of data-driven strategies in retail, focusing on the use of analytics to optimize decision-making. Topics include sales forecasting, customer behavior analysis, inventory management, and market trend identification. Students will learn to leverage data tools and techniques to generate actionable insights for improving retail performance and driving business growth. Previously offered as DHM 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4033 Digital Product Creation II
Prerequisites: DM 3043, with final grade of "C" or higher.
Description: Continue to improve your knowledge and proficiency in 3D with advance skills with avatars, materials, pattern creation, styling and simulations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4040 International Studies in Design and Merchandising
Description: Selected areas of international study in Design and Merchandising. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as DHM 4040.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4043 Advanced Digital Product Creation
Prerequisites: DM 4033, with a final grade of "C" or higher.
Description: Determine your path to 3D garment creation with advanced 3D design knowledge. Increase your skill set in 3D with advanced rendering, garment construction and animating Avatars.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4050 Biomimetic Industrial Practices
Prerequisites: Completion of DM 1101, Wicked Problems of Industrial Practice, is recommended prior to enrolling in this course.
Description: Exploration of sustainable solutions to challenges imposed by human beings through emulation of principles inherent in how nature works with an emphasis on applications in design. Completion of DM 1101, Wicked Problems of Industrial Practice, is recommended prior to enrolling in this course. May not be used for degree credit with DM 5050. Previously offered as DHM 4050 and DHM 4051. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4053 Capstone in DPC
Prerequisites: DM 4043, with a final grade of "C" or higher.
Description: Advance your skills and focus your individual path as an artist, designer and tech designer. As a technical designer it is important to have a grasp of the skills required. This course will expand on pattern and garment fit in relation to 3D and actual fit model. We will also expand on creating these garments in multi-sizes, garment construction, marker consumption and bill of materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4063 Sustainability in the Built Environment
Prerequisites: Senior standing
Description: This course utilizes a project-based learning approach to educate students about sustainability requirements in the built environment. Students will learn to connect concepts to practical application through the integrative design process. Students will be prepared to sit for the LEED exam after successfully completing this course. Previously offered as DHM 4021.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4073 Advanced Textiles
Prerequisites: DM 2573
Description: An overview on protective textiles and clothing used by workers (e.g., firefighters, oilfield-workers) in high-risk sectors will be provided. Various factors affecting the performance of protective textiles and clothing will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4083 Technology in Apparel Retail and Consumer Experiences
Description: A study of technology in the field of retail and consumer behavior. Examination of concepts, frameworks, theories, issues, and academic research in content areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4153 Technical Design
Prerequisites: DHM or DM majors only and DM 3123 and DM 3053, both with a minimum grade of "C".
Description: Understanding and applying tech design for apparel related products. Technical design includes illustration, sketching, CAD pattern making, CAD marker making, material sourcing, production simulation, 3D avatars and fitting, along with costing. Previously offered as DHM 3153, DHM 4153 and CTM 3153.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4163 Housing in Other Cultures
Description: Housing and interior design and expressions of cultural beliefs, attitudes, family patterns and environmental influences. Previously offered as DHM 4163 and HIDC 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4203 Functional Clothing Design
Prerequisites: DM 2573 and DM 3123, both with a minimum grade of "C".
Description: Problem solving approach to functional clothing design for specialized market segments (athletic, sportswear, clothing for the physically challenged) including performance evaluation of selected materials using standard methods of textile testing. Previously offered as CTM 3203 and DHM 3203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4264 Interior Design Studio V: Large Scale Commercial
Prerequisites: DM 3453 and DM 4373 and DM 4824, all with a minimum grade of "C".
Description: Analysis of large scale office planning and institution design including systems and specifications and emphasizing computer-aided design techniques for construction documents and presentations. Previously offered as DHM 4263, DHM 4264 and HIDC 4293.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4294 Interior Design Studio VI - Capstone
Prerequisites: DM 4264 with a minimum grade of "C".
Description: Studio course utilizing the design process in the analysis and planning of hospitality design and/or institutional design such as health care and education. Approaches include the consideration of the impact on facility management. Previously offered as DHM 4293, DHM 4294 and HIDC 4293.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4323 Heritage of Interior Design II (G)
Description: Exploration of the architecture, interiors and furnishings of a variety of structures. Residential, commercial, governmental, institutional, and recreational buildings of different cultures of the 19th and 20th centuries. Previously offered as HIDC 3333, HIDC 4323 and DHM 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: International Dimension

DM 4373 Advanced Computer-Aided Design for Interior Design
Prerequisites: DM 2073, with a minimum grade of "C".
Description: Advanced computer-aided design and visualization for three-dimensional interior systems. Previously offered as DHM 4373.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4403 Advanced Apparel Design
Prerequisites: DM 2444 and DM 3023, with a minimum grade of "C".
Description: Application of design and pattern-making principles and apparel assembly processes in the development of original designs. Course previously offered as CTM 4403 and DHM 4403.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Design & Merchandising

DM 4433 Facility Management and Design
Description: Survey of nine competency areas of facility management and design, ensuring functionality of the built environment by integrating people, places, processes and technology. Previously offered as DHM 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4453 Fashion Entrepreneurship
Prerequisites: DM 3553, DM 3563, and DM 3993 with a minimum grade of "C".
Description: Study of the principles and practices of launching and managing a successful fashion business. This course covers the entire entrepreneurial process from ideation to business planning, including market research, brand development, financing strategies, product sourcing, and distribution. Students will explore challenges and opportunities in the fashion industry and develop the skills necessary to create, finance, and grow their own fashion enterprises. Previously offered as CTM 4453 and DHM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4503 Couture Techniques
Prerequisites: DM 2444, with a minimum grade of "C".
Description: Advanced clothing construction techniques using couture methods. Previously offered as DHM 4503.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4523 Critical Issues in Design and Merchandising
Prerequisites: Senior standing in DHM/DM major.
Description: Capstone course examining professional issues in design and merchandising in the context of central themes from general education. Course previously offered as CTM 4523 and DHM 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4533 Diversity and Inclusion in the Built Environment (D)
Description: In-depth study focused on diversity and inclusion needs of underrepresented groups in a variety of built environments including: offices, retail stores, hotels, restaurants, government, educational, housing and cultural institutions. This includes examining the lived experience of individuals of diverse ages, genders, physical and cognitive abilities framed within a lens of individual and civil rights. Previously offered as DHM 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising
General Education and other Course Attributes: Diversity

DM 4573 Sustainable Design for Apparel and Interiors
Prerequisites: CHEM 1014 or equivalent, and DM 2573, DM 3033 and Senior standing. Non DM majors: no prerequisite.
Description: A brief review of contemporary environmental, social and economic issues associated with industry practice; a broad exploration of sustainable design theories which may be applied in the apparel and interiors fields, from eco-efficiency to socially-driven changes. Previously offered as DHM 4573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4583 Sustainable Design Capstone
Prerequisites: DM 1101 with a minimum grade of "C" and Permission of Instructor.
Description: Work with community leaders and/or organizations to complete transdisciplinary service-learning projects that require the application of sustainable design concepts to solve local problems. Public dissemination of lessons learned. Previously offered as DHM 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Design & Merchandising

DM 4810 Problems in Design and Merchandising
Prerequisites: Consent of instructor.
Description: Selected areas of study in design and merchandising. Previously offered as DHM 4810. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4824 Professional Internship
Prerequisites: ADP option: DM 3023 and DM 3123. ID option: DM 3453 and DM 4373. Merch option: DM 3553 and DM 3853. All options: DHM or DM majors only, 2.5 major GPA and DM 3991.
Description: A supervised internship experience that simulates the responsibilities and duties of a practicing professional in a work situation related to design in merchandising. Previously offered as DHM 4820 and DHM 4824.
Credit hours: 4
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4850 Special Unit Course in Design and Merchandising
Description: In-depth study of specific areas of design and merchandising. Previously offered as HIDC 4850 and DHM 4850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

DM 4893 Fundamentals of Medical Smart Garment Engineering
Prerequisites: Senior standing or higher.
Description: Students will gain elementary knowledge in focus areas of health science, biomedical sensing and analysis, and apparel design necessary to undertake the development of wearable electronic sensing systems. Lecture and laboratory systems. May not be used for degree credit with BIOM 6893, IEM 4893 or IEM 5893. Previously offered as DHM 4893.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Design & Merchandising

DM 4900 Honors Creative Component
Prerequisites: College of Education and Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in the College of Education and Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral examination. Previously offered as DHM 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Design & Merchandising

Undergraduate Programs

- Apparel Design and Technology, BS (p. 1989)
- Fashion Merchandising, BS (p. 1996)
- Interior Design, BS (p. 1999)

Graduate Programs

The Department of Design and Merchandising offers graduate work leading to the Master of Science in Design and Merchandising. The program is scientifically based research and/or design oriented. Graduate degrees in the department are tailored to departmental areas of expertise, professional goals of the candidate and College of Education and Human Sciences and Graduate College requirements. Graduate programs may focus on either merchandising or design. Students may investigate design and merchandising from the following perspectives: product development and evaluation, consumer and supplier behavior, business development and management, and constructed environmental and individual interrelationships.

The Master of Science Degree

The Master of Science degree is awarded in four options—Apparel Design and Production, Interior Design, Merchandising, and Retail Merchandising Leadership (offered online through the Innovative Digital Education Alliance) and is designed to prepare individuals for careers in business, industry, extension and post-secondary or college teaching. The thesis plan (research or design) is available for students in apparel design and interior design. For merchandising master students, research thesis and non-thesis options are available. For retail merchandising leadership master students a non-thesis plan is required. Programs of study are built around the academic background, experience, needs, special interests and professional goals of the student. The selection of courses that meet departmental requirements is made in consultation

with the advisory committee. A minimum of 21 credit hours must be taken in the department. Additional courses may be selected from other areas of human sciences or from supporting areas such as marketing, sociology, history and physiology. If the undergraduate degree is not in the area of specialization, specific undergraduate courses in design and merchandising will be required as prerequisites. The newest offering is an accelerated MS degree for current students in Apparel Design and Production and Interior Design where students can earn the MS degree in one year beyond the BS degree.

More detailed information on graduate study in the Department of Design and Merchandising can be obtained from the department website https://education.okstate.edu/departments-programs/design-housing-merchandising/index.html (https://education.okstate.edu/departments-programs/design-housing-merchandising/) or by writing the Graduate Coordinator.

Minors

- Fashion Merchandising (FMER), Minor (p. 1995)

Certificates

- Digital Design in Design and Merchandising, UCRT (p. 1992)
- Fashion Design, UCRT (p. 1993)
- Fashion Design: Digital Product Creation, UCRT (p. 1994)
- Product Development for Apparel, UCRT (p. 2002)

Faculty

Lynn M. Boorady, PhD—Professor and Department Head
Associate Professor and Graduate Coordinator: Aditya Jayadas, PhD
Professor: Paulette Hebert, PhD; Tilanka Chandrasekera, PhD
Associate Professors: Sumit Mandal, PhD; Semra Peksoz, PhD; Adriana Petrova, PhD; June Park, PhD; Emily Roberts, PhD
Assistant Professors: Kyuree Kim, PhD; Juyeun Jang, PhD; Hebatalla Nazmy, PhD; Nishan Wijetunge, PhD; Yanan Yu, PhD
Professor of Professional Practice: Diane Limbaugh, MS

Apparel Design and Technology, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Minimum grade of "C"		
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q)	
MATH 2103	Business Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
DM 3213	Heritage of Dress II (H)	3
Course designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
DM 2573	Textile Science (LN)	3
Course designated (N)		3
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
or SOC 1113	Introductory Sociology (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Sciences		
HDFS 2113	Lifespan Human Development (S)	3
Hours Subtotal		**5**
Major Requirements		
Minimum grade of "C" in each course		
Major Core Requirements		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 1103	Basic Apparel Assembly	3
DM 1433	Fundamentals of the Fashion Industry	3
DM 1993	Communications and Presentation Techniques for Apparel Design	3
DM 2003	Problem Solving Strategies	3
DM 2204	Intermediate Apparel Assembly	4
DM 2403	Research Methods	3
DM 2444	Draping	4
DM 3014	Flat Pattern Design	4
DM 3023	Computer-Aided Flat Pattern Design	3
DM 3043	Digital Product Creation	3
DM 3053	Quality Analysis for Apparel Design	3
DM 3123	Advanced Technology for Apparel Design	3
DM 3991	Pre-Internship Seminar	1
DM 3993	Global Sourcing Strategies	3
DM 4153	Technical Design	3
DM 4203	Functional Clothing Design	3
DM 4824	Professional Internship	4
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
Minimum grade of "C" for ECON course		
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
DM 3533	Textile Surface Design	3
DM 4403	Advanced Apparel Design	3
Controlled Electives		
Select 3 hours of the following:		3
DM 3103	Anthropometry and Ergonomics in Design	
DM 4010	Fashion Show Production	
DM 4033	Digital Product Creation II	
DM 4453	Fashion Entrepreneurship	
ART 1103	Drawing I	
ART 2243	Jewelry and Metals I	
EEE 3033	Women and Minority Entrepreneurship	
TH 4673	Advanced Costume Technology	
MGMT 3123	Managing Behavior and Organizations	
3 hours foreign language may be used		
Hours Subtotal		**74**
General Electives		

Select 3 hours of electives.	3
Hours Subtotal	**3**
Total Hours	**122**

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Proficiency review required to take upper-level DM Fashion Design courses.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours and minimum grade of "C" in MATH 1483 Mathematical Functions and Their Uses (A) or MATH 1513 College Algebra (A) or MATH 2103 Business Calculus.

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- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Proficiency review required to take upper-level DM Fashion Design courses.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours and minimum grade of "C" in MATH 1483 Mathematical Functions and Their Uses (A) or MATH 1513 College Algebra (A) or MATH 2103 Business Calculus.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
DM 1103	Basic Apparel Assembly	3
DM 1433	Fundamentals of the Fashion Industry	3
DM 1003	Design Theory and Processes for Design and Merchandising	3
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
UNIV 1111	First Year Seminar	1
3 Hours General Education (N/L)		3
	Hours	**16**
Spring		
DM 1993	Communications and Presentation Techniques for Apparel Design	3
DM 2204	Intermediate Apparel Assembly	4
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1223	International Freshman Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q)	
MATH 2103	Business Calculus (Q)	
Proficiency Review Required		
	Hours	**13**
Sophomore		
Fall		
DM 2003	Problem Solving Strategies	3
DM 2444	Draping	4
DM 2573	Textile Science (LN)	3
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
DM 2403	Research Methods	3
DM 3014	Flat Pattern Design	4
DM 3053	Quality Analysis for Apparel Design	3
ECON 1113 or ECON 2103	The Economics of Social Issues (S) or Introduction to Microeconomics (S)	3
3 Hours General Education (Q, H, N, or S)		3
	Hours	**16**
Junior		
Fall		
DM 3023	Computer-Aided Flat Pattern Design	3
DM 3043	Digital Product Creation	3
DM 3533	Textile Surface Design	3
HDFS 2113	Lifespan Human Development (S)	3
3 Hours General Education (Q, H, N, or S)		3
DM 3991	Pre-Internship Seminar	1
	Hours	**16**
Spring		
DM 3123	Advanced Technology for Apparel Design	3
DM 3213	Heritage of Dress II (H)	3
DM 4033	Digital Product Creation II (Or Controlled Elective)	3
POLS 1113	American Government	3
MKTG 3213	Marketing (S)	3
	Hours	**15**

Summer		
DM 4824	Professional Internship	4
	Hours	**4**
Senior		
Fall		
DM 4043	Advanced Digital Product Creation	3
DM 4153	Technical Design	3
DM 4203	Functional Clothing Design	3
PSYC 1113 or SOC 1113	Introductory Psychology (S) or Introductory Sociology (S)	3
1 Hour General Education (Q, H, N, S)		1
3 hour General Education (Q, H, N, S)		3
	Hours	**16**
Spring		
DM 3993	Global Sourcing Strategies	3
DM 4403	Advanced Apparel Design	3
MGMT 3013	Fundamentals of Management (S)	3
3 Hour General Education Humanities (H)		3
File Graduation Application		
	Hours	**12**
	Total Hours	**122**

Digital Design in Design and Merchandising, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
DM 2003	Problem Solving Strategies	3
DM 2033	VR and AR for Social Change	3
DM 2403	Research Methods	3
DM 3173	Digital Design Communication	3
DM 4523	Critical Issues in Design and Merchandising	3
DM 4373	Advanced Computer-Aided Design for Interior Design (or course approved by Academic Advisor)	3
Total Hours		**18**

Fashion Design, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 30

Code	Title	Hours
Course Requirements		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 1103	Basic Apparel Assembly	3
DM 1433	Fundamentals of the Fashion Industry	3
DM 1993	Communications and Presentation Techniques for Apparel Design	3
DM 2204	Intermediate Apparel Assembly	4
DM 2444	Draping	4
DM 2573	Textile Science (LN)	3
DM 3014	Flat Pattern Design	4
DM 3023	Computer-Aided Flat Pattern Design	3
Total Hours		**30**

Other Requirements

- Minimum of "C" required in all courses;
- All students must go through the FDP review process following DM 2204.

Fashion Design: Digital Product Creation, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Program Core		
DM 3023	Computer-Aided Flat Pattern Design	3
DM 3043	Digital Product Creation	3
DM 4033	Digital Product Creation II	3
DM 4043	Advanced Digital Product Creation	3
DM 4053	Capstone in DPC	3
DM 4810	Problems in Design and Merchandising	1
Total Hours		**16**

Other Requirements

- Have an overall GPA of 2.0
- Minimum of "C" required in all courses.

Fashion Merchandising (FMER), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Department of Design and Merchandising, Diane Limbaugh, 431 Nancy Randolph Davis, 405-744-5035

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
DM 1433	Fundamentals of the Fashion Industry	3
DM 2573	Textile Science (LN)	3
DM 3433	Retail Strategies in the Digital Sector	3
DM 3553	Profitable Merchandising Analysis	3
DM 3563	Merchandise Acquisition and Allocation	3
DM 4453	Product Development Process	3
Total Hours		**18**

Other Requirements

- Acceptance to the minor is based on an overall GPA of 2.0 if less than 31 hours completed; 2.25 if 31-45 hours completed; 2.50 if over 45 hours completed.
- DM majors must complete 12 credit hours in addition to the requirements for their option.
- Minimum of "C" required in all minor courses.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Fashion Merchandising, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q)	
MATH 2103	Business Calculus (Q)	
Minimum grade of "C" for (Q) course		
Understanding Humanities-Human Heritage & Cultures (H)		
DM 3213	Heritage of Dress II (H)	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
DM 2573	Textile Science (LN)	3
Course designated (N)		3
Exploring Society & Human Behavior (S)		
ECON 1113	The Economics of Social Issues (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
Minimum grade of "C" for ECON course		
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 1111	First Year Seminar Supplement	1
or EDHS 3111	Preparing for Your Future Career	
Human Sciences		
HDFS 2113	Lifespan Human Development (S)	3
Hours Subtotal		**5**
Major Requirements		
Minimum grade of "C" in each course		
Major Core Requirements		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 1433	Fundamentals of the Fashion Industry	3
DM 2003	Problem Solving Strategies	3
DM 2243	Sustainability in the Fashion Industry	3
DM 2403	Research Methods	3
DM 2423	Technology and Visual Communication for Merchandisers	3
DM 2913	Sewn Product Quality Analysis	3
DM 3033	Material Culture	3
DM 3433	Retail Strategies in the Digital Sector	3
DM 3443	Fashion Marketing Strategies	3
DM 3463	Fashion Consumer Behavior	3
DM 3553	Profitable Merchandising Analysis	3
DM 3563	Fashion Buying and Planning	3
DM 3853	Visual Merchandising	3
DM 3991	Pre-Internship Seminar	1
DM 3993	Global Sourcing Strategies	3
DM 4453	Fashion Entrepreneurship	3
DM 4824	Professional Internship	4
Controlled Electives		
Select 15 hours from the following:		15
DM 4010	Fashion Show Production	
DM 4023	Retail Analytics and Insights	
DM 4040	International Studies in Design and Merchandising	
DM 4083	Technology in Apparel Retail and Consumer Experiences	
DM 4810	Problems in Design and Merchandising	
ENGL 2513	Introduction to Creative Writing (H)	
MKTG 3213	Marketing (S)	
MKTG 4513	Sales Management	
MGMT 3013	Fundamentals of Management (S)	
MGMT 4021	Managing Professional Relationships	
STAT 2013	Elementary Statistics (Q)	
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
A maximum of 6 hours of foreign language may be used		
Hours Subtotal		**68**
Electives		

Electives can be met with any additional courses providing student meets required prerequisites. It is highly recommended students take advantage of off-campus study programs and study abroad opportunities. See your advisor to discuss ways you can increase your global competency by studying abroad.	
Select 7 hours	7
Hours Subtotal	**7**
Total Hours	**120**

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours and minimum grade of "C" in MATH 1483 Mathematical Functions and Their Uses (A) or MATH 1513 College Algebra (A) or MATH 2103 Business Calculus (A)

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours and minimum grade of "C" in MATH 1483 Mathematical Functions and Their Uses (A) or MATH 1513 College Algebra (A) or MATH 2103 Business Calculus (A)

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
DM 1433	Fundamentals of the Fashion Industry	3
DM 1003	Design Theory and Processes for Design and Merchandising	3
Select one of the following:		3
ENGL 1113	Composition I	
ENGL 1123	International Freshman Composition I	
ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q)	
MATH 2103	Business Calculus (Q)	
UNIV 1111	First Year Seminar	1
	Hours	**16**
Spring		
DM 2573	Textile Science (LN)	3
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1223	International Freshman Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
POLS 1113	American Government	3
3 Hours General Education (Q, H, N, or S)		3
DM 2243	Sustainability in the Fashion Industry	3
	Hours	**15**
Sophomore		
Fall		
DM 2913	Sewn Product Quality Analysis	3
3 Hours General Education (Q, H, N, or S)		3
DM 3443	Fashion Marketing Strategies	3
ECON 1113 or ECON 2103	The Economics of Social Issues (S) or Introduction to Microeconomics (S)	3
3 Hours General Education (N/L)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
DM 2003	Problem Solving Strategies	3
DM 2403	Research Methods	3
DM 2423	Technology and Visual Communication for Merchandisers	3
DM 3213	Heritage of Dress II (H)	3
DM 3463	Fashion Consumer Behavior	3
	Hours	**15**
Junior		
Fall		
DM 3433	Retail Strategies in the Digital Sector	3
DM 3553	Profitable Merchandising Analysis	3
DM 3991	Pre-Internship Seminar	1
HDFS 2113	Lifespan Human Development (S)	3
3 credits General Education (Q, H, N, or S)		3
1 credit General Education (Q, H, N, or S)		1
	Hours	**14**
Spring		
DM 3563	Fashion Buying and Planning	3
DM 3993	Global Sourcing Strategies	3
3 Hour General Education Humanities (H)		3

3 Hour Controlled Elective		3
3 Hour Controlled Elective		3
	Hours	**15**
Summer		
DM 4824	Professional Internship	4
	Hours	**4**
Senior		
Fall		
DM 3853	Visual Merchandising	3
DM 4453	Fashion Entrepreneurship	3
3 Hour Controlled Elective		3
3 Hour Elective		3
	Hours	**12**
Spring		
DM 3033	Material Culture	3
DM 4013	Advanced Visual Communication for Merchandisers	3
DM 4023	Retail Analytics and Insights	3
3 Hour Elective		3
1 Hour Elective		1
File Graduation Application		
	Hours	**13**
	Total Hours	**120**

Interior Design, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Minimum grade of "C"		
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q)	
MATH 1583	Applied Geometry and Trigonometry (Q)	
MATH 1613	Trigonometry (Q)	
Minimum grade of "C" for (Q) course		
Understanding Humanities-Human Heritage & Cultures (H)		
DM 3233	Heritage of Interior Design I (H)	3
Courses designated (H)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
DM 2573	Textile Science (LN)	3
Course designated (N)		3
Exploring Society & Human Behavior (S)		
SOC 3223	Social Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Human Sciences		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
HDFS 2113	Lifespan Human Development (S)	3
Hours Subtotal		**5**
Major Requirements		
Minimum grade of "C" in each course		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 2003	Problem Solving Strategies	3
DM 2403	Research Methods	3
DM 3033	Material Culture	3
DM 1123	Graphics for Interior Design I	3
DM 2073	Computer-Aided Design for Interior Design	3
DM 2103	Interior Design Studio I: Residential	3
DM 2233	Graphics for Interior Design II	3
DM 2263	Interior Design Studio II: Small Scale Contract	3
DM 2302	Supervised Field Experience	2
DM 3173	Digital Design Communication	3
DM 3303	Materials and Finishes for Interior Design	3
DM 3343	Interior Design Studio III: Interior Components and Construction Documents	3
DM 3453	Interior Design Studio IV: Environmental Design	3
DM 3823	Professional Practices for Interior Design	3
DM 3991	Pre-Internship Seminar	1
DM 4264	Interior Design Studio V: Large Scale Commercial	4
DM 4294	Interior Design Studio VI - Capstone	4
DM 4323	Heritage of Interior Design II (G)	3
DM 4373	Advanced Computer-Aided Design for Interior Design	3
DM 4433	Facility Management and Design	3
DM 4824	Professional Internship	4
Select one of the professional areas (p.)		6
General Electives		
Select three hours of coursework		3
Hours Subtotal		**75**
Total Hours		**120**

Professional Areas

Design Area

Code	Title	Hours
Required Course		
ART 1303	Visual Thinking: Form and Space	3
Controlled Electives		
Select 3 hours from the following:		3
DM 3103	Anthropometry and Ergonomics in Design	

DM 4063	Sustainability in the Built Environment
DM 4533	Diversity and Inclusion in the Built Environment (D)
DM 4453	Fashion Entrepreneurship
ACCT 2003	Survey of Accounting
ARCH 2003	Architecture and Society (GH)
ART 3683	History of 20th Century Art (GH)
ART 3643	History of Graphic Design
HIST 4063	Historic Preservation
HTM 3473	Managing The Built Environment
PHIL 4113	Philosophy & the Arts (H)
SOC 3993	Sociology of Aging (DS)
TH 2553	Fundamentals of Theatrical Design
TH 3183	Theatrical Scenic Design
TH 3593	Theatrical Lighting Design
Total Hours	**6**

Facility Management Area

Code	Title	Hours
Required Course		
DM 4533	Diversity and Inclusion in the Built Environment (D)	3
Controlled Electives		
Select 3 hours from the following:		3
DM 3103	Anthropometry and Ergonomics in Design	
DM 4453	Fashion Entrepreneurship	
ACCT 2003	Survey of Accounting	
ACCT 2203	Managerial Accounting	
ECON 2203	Introduction to Macroeconomics	
ECON 3903	Economics of the Environment	
HTM 3473	Managing The Built Environment	
LSB 3213	Legal and Regulatory Environment of Business	
LSB 4523	Law of Real Property	
LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 3013	Fundamentals of Management (S)	
MGMT 3313	Human Resource Management	
MGMT 4313	Organization for Action	
MKTG 3213	Marketing (S)	
Total Hours		**6**

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Proficiency review required to take sophomore level DHM Interior Design courses.
- **Transfer Admission Requirements:** 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours.

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College and Major Requirements.
- A 2.50 Major GPA is required for full admission to the Internship Program.
- Proficiency review required to take sophomore level DHM Interior Design courses.
- **Transfer Admission Requirements:** 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
DM 1123	Graphics for Interior Design I	3
Select one of the following:		3
ENGL 1113	Composition I	
ENGL 1123	International Freshman Composition I	
ENGL 1313	Critical Analysis and Writing I	
POLS 1113	American Government	3
HDFS 2113	Lifespan Human Development (S)	3
3 Hour General Education Humanities (H)		3
UNIV 1111	First Year Seminar	1
	Hours	**16**
Spring		
DM 2233	Graphics for Interior Design II	3
DM 1003	Design Theory and Processes for Design and Merchandising	3
ART 1303	Visual Thinking: Form and Space	3
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1223	International Freshman Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
Select one of the following:		3

MATH 1513	College Algebra (Q)	
MATH 1583	Applied Geometry and Trigonometry (Q)	
MATH 1613	Trigonometry (Q)	
Proficiency Review Required		
	Hours	**15**
Sophomore		
Fall		
DM 2073	Computer-Aided Design for Interior Design	3
DM 2103	Interior Design Studio I: Residential	3
DM 2403	Research Methods	3
DM 2573	Textile Science (LN)	3
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
DM 2263	Interior Design Studio II: Small Scale Contract	3
DM 3173	Digital Design Communication	3
DM 2003	Problem Solving Strategies	3
DM 2302	Supervised Field Experience	2
3 Hours General Education (N/L)		3
1 Hour General Education		1
	Hours	**15**
Junior		
Fall		
DM 3343	Interior Design Studio III: Interior Components and Construction Documents	3
DM 3233	Heritage of Interior Design I (H)	3
DM 3303	Materials and Finishes for Interior Design	3
DM 3823	Professional Practices for Interior Design	3
3 Hours General Education (Q, H, N, or S)		3
DM 3991	Pre-Internship Seminar	1
	Hours	**16**
Spring		
DM 3453	Interior Design Studio IV: Environmental Design	3
DM 4323	Heritage of Interior Design II (G)	3
DM 4373	Advanced Computer-Aided Design for Interior Design	3
DM 4433	Facility Management and Design	3
	Hours	**12**
Summer		
DM 4824	Professional Internship	4
	Hours	**4**
Senior		
Fall		
DM 4264	Interior Design Studio V: Large Scale Commercial	4
DM 3033	Material Culture	3
3 Hours General Education (Q, H, N, or S)		3
3 Hour Elective		3
	Hours	**13**
Spring		
DM 4294	Interior Design Studio VI - Capstone	4
SOC 3223	Social Psychology (S)	3
3 Hours General Education (Q, H, N, or S)		3
3 Hour Controlled Elective (see degree sheet list)		3
File Graduation Application		
	Hours	**13**
	Total Hours	**120**

Product Development for Apparel, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 24

Code	Title	Hours
Course Requirements		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 1103	Basic Apparel Assembly	3
DM 1433	Fundamentals of the Fashion Industry	3
DM 1993	Communications and Presentation Techniques for Apparel Design	3
DM 2573	Textile Science (LN)	3
DM 3053	Quality Analysis for Apparel Design	3
DM 4153	Technical Design	3
DM 4453	Product Development Process	3
Total Hours		**24**

Human Development and Family Science

The Department of Human Development and Family Science (HDFS) is a premier academic program dedicated to the discovery, integration and application of knowledge to enhance the resilience of diverse individuals and relationships. The department prepares students to work with individuals, couples and families. The department's primary focus is on integrative approaches to developing and maintaining individual and family resilience. The distinguishing feature of HDFS is the interdisciplinary and multidisciplinary integration of instruction, research and application between and among human development, family science, gerontology, early childhood education, and marriage and family therapy.

Committed to enhancing the quality of life of individuals and families by maximizing resilience and reducing risk, the Department of Human Development and Family Science provides a dynamic environment for life-long learners through engagement in:

- instruction that fosters creative and critical thinking for individuals in their professional and personal lives;
- research that contributes to the discovery of knowledge and understanding of human development and family relationships; and
- application of knowledge that is responsive to and informed by constituents' needs.

The department offers undergraduate programs in early childhood education, early child care and development (online), child and family services, and family and consumer sciences education. Each of these programs emphasizes integration of theory, research, policy and practice.

Criteria for undergraduate students wishing to transfer into HDFS include a required minimum retention grade-point average.

Hours Completed	Minimum GPA Requirement
Less than 31 hours	2.00
31-45 hours	2.25
Over 45 hours	2.50

The early childhood education (ECE) teacher certification program provides professional preparation for individuals to teach infants through third grade. This option provides a foundation in child development to prepare students to design, implement and evaluate developmentally appropriate curricula for young children.

An early childhood education (ECE) certificate is required to teach pre-kindergarten through third grade in Oklahoma public schools. All students completing the early childhood education option must meet Oklahoma State University and Oklahoma professional education requirements.

The early childcare and development (ECCD) program is 100% online and prepares students to work in early childhood settings with young children. Early Child Care and Development specialists create environments that are healthy, respectful, supportive and challenging for each child. Specialists design, implement, and evaluate experiences that promote positive development in young children.

Graduates are qualified to work in a variety of programs that offer early care and education such as infant and toddler programs, preschool programs, childcare centers and homes, military child development/care centers, before and after school programs, Head Start programs and related organizations.

The child and family services (CFS) program prepares individuals for careers in providing services and leadership to children, youth, adults and their families. The course content focuses on individual development, family dynamics, family life education, policy, management, and professional skills in the context of the community. Career opportunities are in public and private social services agencies, policy and advocacy centers, and in business and industry.

The CFS program also provides education for individuals planning to continue their education in graduate programs, medical school, law school or other specialized graduate programs. The curriculum focuses on developing skills in critical thinking, scientific investigation, and written and oral communication. Students are prepared for advanced education in such areas as family therapy, child life, medicine, physical therapy, law and psychology. This option provides flexibility to accommodate the student's particular area of interest or to meet prerequisites for a professional school.

The family and consumer sciences education (FACSED) program prepares individuals to provide comprehensive knowledge and skills that will help individuals, families and communities make informed, healthy, research-based and practical decisions to improve their well-being, society and the economy. Two paths are available for career preparation: one for Cooperative Extension Services and one for secondary school instruction. In both, FACSED students take specialized coursework in apparel design and production, family science, hospitality management, housing and interior design, human (including child) development, nutritional sciences, parenting, resource management, textiles and educator preparation so they are equipped to work in educational settings where they will have a significant impact on the lives of others. A semester-long internship or student teaching experience during the senior year in an outstanding program completes the undergraduate university preparation. Upon graduation, students meet the employment requirements for the Oklahoma Cooperative Extension Service and/or the teacher certification requirements for the Oklahoma State Department of Education, depending on which option was chosen. The job market remains strong for both careers in Oklahoma and throughout the nation.

The BS degree in HDFS requires a minimum of 124 semester credit hours. The online BS in ECCD requires 120 semester credit hours. Minors in child development, gerontology, and human services are also available in the department; information on requirements may be obtained from the HDFS department office or the Patricia Kain Knaub Center for Student Success. Articulation agreements between Oklahoma State University and Tulsa Community College and between Oklahoma State University and Northern Oklahoma College provide for a transition toward a baccalaureate degree in human development and family science.

Further information may be found at https://education.okstate.edu/departments-programs/human-development-family-science/index.html (https://education.okstate.edu/departments-programs/human-development-family-science/).

Courses

FFP 2003 Financial Health for Helping Professionals
Description: Develop and build healthy financial habits and maintain financial wellness through college and beyond.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 2613 Financial Perspectives throughout the United States (DS)
Prerequisites: Must have completed 20 credit hours.
Description: An introduction to the personal relationship with money focusing on similarities and differences between Race/Ethnicity, Sex/Gender, Aging, Religion, and Family Structure. This course provides an overview of history, present day application, seeks solutions, and encourages reflection on the personal and societal relationships with money.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity, Society & Human Behavior

FFP 3803 Fundamentals of Family Financial Planning
Description: An introduction to issues and concepts related to the individual and family financial planning process and the client/planner relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3813 Insurance Planning for Families
Description: Aspects of risk to individuals and families and covers the tools and strategies that can be used to reduce and manage those risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3823 Retirement Planning for Families
Description: Study of considerations in retirement planning for individuals and families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 3833 Estate Planning for Families
Description: Aspects of the estate planning process and legislation applied to the needs of families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4303 Financial Counseling
Prerequisites: Must have completed 20 credit hours.
Description: This course emphasizes the development of professional skills for assisting individuals and families to become responsible financial managers through the financial counseling process. The course will focus on skills that need to be attained to become a helping professional with an expertise in financial planning including: relationship building, listening skills, practice standards, intake and record keeping, client action plans and agreements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4813 Income Tax Planning for Families
Description: A review of tax laws and the tools that can be used for personal income tax planning to meet individual and family goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4823 Investment Planning for Families
Description: The essentials of how investment planning informs individual and family economic goals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 4933 Capstone: Financial Plan Development
Description: Addresses the application of all aspects of financial planning. Development and presentation of a comprehensive financial plan to a client.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5110 Directed Studies in Family Financial Planning
Description: Directed individual study in Family Financial Planning.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5243 Master's Capstone
Description: An in-depth application of theoretical models and philosophies related to area of specialization.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

FFP 5253 Family Economics
Description: Issues related to the economics of families, household production, and human capital development; economics of crises public policy and family life cycle spending, saving and borrowing; special attention to the role of ethics in family economic issues. A theoretical and a research perspective used to illuminate the concepts in the course. Web-based instruction. Previously offered as HS 5253 and HES 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5303 Fundamentals of Family Financial Planning
Description: The nature and functioning of financial systems, including currencies, markets, monetary and fiscal policy, and supply and demand for land, labor and capital. Focus on the impact of global financial interdependence on individuals and families in the U.S. Current and emerging issues, as well as current research and theory relative to financial systems. Web-based instruction. Previously offered as HES 5303 and HS 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5333 Theories and Research in Family Financial Planning I
Prerequisites: Admission to the Great Plains IDEA FFP program.
Description: Introduction of the social science of family finances. Focus on theories of family functioning, microeconomic theory related to family resource allocation decisions, the family as an economic unit, and the interaction of economy and families. Previously offered as HS 5333. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5343 Theories and Research in Family Financial Planning II
Prerequisites: Admission to the Great Plains IDEA FFP program and FFP 5333.
Description: Microeconomic theory as it relates to family resource allocation decisions, theories of household behavior, the lifecycle hypothesis, behavioral economics, behavioral finance, theories of behavioral change, and psychological theories of family well-being. Focus on empirical research investigating household financial decision-making. Previously offered as HS 5343. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5353 Financial Counseling for Family Financial Planning
Description: Theory and research regarding the interactive process between client and practitioner, including communication techniques, motivation and esteem building, counseling environment, ethics, and data intake, verification, and analysis. Legal issues, compensation, technology to identify resources, information management, and current or emerging issues. Web-based instruction. Previously offered as HES 5353 and HS 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5403 Estate Planning for Families
Description: Fundamentals of estate planning process, estate settlement, estate and gift taxes, property ownership and transfer, and powers of appointment. Tools and techniques in implementing effective estate plan, ethical considerations in providing estate planning services, new and emerging issues in the field. Experience with case studies in developing estate plans for varied family forms. Web-based instruction. Previously offered as HS 5403 and HES 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5453 Retirement Planning, Employee Benefits and the Family
Description: Study of micro and macro considerations for retirement planning. Survey of various types of retirement plans, ethical considerations in providing retirement planning services, assessing and forecasting financial needs in retirement, and integration of retirement plans with government benefits. Web-based instruction. Previously offered as HS 5453 and HES 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5483 Military Family Financial Issues
Description: An overview of topics relevant to the financial planning process, adapting topics to address the unique needs of and resources available to military service members and their families. Topics include status of service member; financial readiness; financial, risk, investment, tax, retirement and estate management; record keeping; cash flow management; credit and debt management; savings; education planning; and special topics. Web based instruction. Previously offered as HS 5483 and HES 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5503 Housing and Real Estate for Family Financial Planning
Description: Overview of the role of housing and real estate in financial planning process from a theoretical perspective. Taxation, legal aspects, mortgages, and financial calculations related to home ownership and real estate investments. New and emerging issues in the context of housing and real estate. Role of ethics in financial planning including housing and real estate. Previously offered as DHM 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5553 Insurance Planning for Families
Description: Study of risk management concepts, tools, and strategies for individuals and families, including life insurance; property and casualty insurance; liability insurance; accident, disability, health, and long-term care insurance; and government-subsidized programs. Current and emerging issues and ethical considerations. Relationships between investment options and employee/employer benefit plan choices. Web-based instruction. Previously offered as HS 5553 and HES 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5603 Investing for the Family's Future
Description: Evaluation of investment markets for the household. Analysis of how families choose where to put their savings. Using the family's overall financial and economic goals to help make informed decisions about which investments to choose. Web-based instruction. Previously offered as HS 5603 and HES 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5653 Personal Income Tax for Family Financial Planning
Description: Information on income tax practices and procedures including tax regulations, tax return preparation, tax audit processes, appeals process, preparation for an administrative or judicial forum, and ethical considerations of taxation. New, emerging issues related to taxation. Family and individual case studies practice in applying and analyzing tax information and recommending appropriate tax strategies. Web-based instruction. Previously offered as HS 5653 and HES 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5663 Survey of Digital Investment Assets
Prerequisites: FFP 5603
Description: Foundational overview of the increasing popularity of digital investment assets, including cryptocurrencies, decentralized protocols and platforms like blockchain technology, and tokens. Students will explore the benefits and risks of investing in digital assets and how this emerging asset class fits within the context of Modern Portfolio Theory. Regulatory challenges and essential financial planning considerations like portfolio management, taxation and estate planning will be examined, in addition to best practices for client communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5703 Professional Practices in Family Financial Planning
Description: Challenges of managing financial planning practices, including business valuation, personnel, marketing, client services, ethics and technological applications. Relying on theoretical as well as applied approach, analysis of case studies that provide relevant, practical exposure to practice management issues, with strong emphasis on current research findings. Web-based instruction. Previously offered as HS 5703 and HES 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

FFP 5803 Case Studies in Family Financial Planning
Prerequisites: FFP 5303 and FFP 5453 and FFP 5553 and FFP 5603 and FFP 5653 or consent of advisor.
Description: Professional issues in financial planning, including ethical considerations, regulation and certification requirements, communication skills, and professional responsibility. Utilization of skills obtained in other courses and work experiences in the completion of personal finance case studies, the development of a targeted investment policy, and other related financial planning assignments. Web-based instruction. Previously offered as HS 5803 and HES 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 1101 Relationships 101
Description: An applied course designed to actively involved students in the exploration of topics which influence the development of positive relationships. Topics include gender differences, relationship principles, family of origin and personal needs. Application to personal and professional settings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 1112 Introduction to Human Development and Family Science
Description: Exploration of the philosophy and practice of human development and family science. Previously offered as FRCD 2613.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2113 Lifespan Human Development (S)
Description: Study of human development within diverse family systems. Taught from a life span perspective. Previously offered as FRCD 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 2114 Lifespan Human Development: Honors
Prerequisites: Honors students only.
Description: Honors course critically examining the study of human development within diverse family systems. Taught from a lifespan perspective.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Honors Credit

HDFS 2123 Developmental Disabilities: Issues Across the Lifespan (D)
Description: An introduction to intellectual and developmental disabilities including issues encountered by individuals and families across the lifespan. An overview of history, theory, research, practice and policy. Assumes a basic knowledge of cultural diversity and research methods employed in human development. Field work and engagement with individuals with intellectual disability is an integral component of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity

HDFS 2133 Introduction to Aging Services
Description: Introduction to aging programs, services, and community resources to assist older adults and their family members. Additional focus on personal, academic, and professional development in preparation of an aging service career. Community engagement through a service learning project with a local aging service agency or care center.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2211 Early Childhood Field Experience I
Prerequisites: Concurrent enrollment in HDFS 2243 and HDFS 2233.
Description: Field experience working with children ages birth through age five. Observation of children in classroom contexts; design and implementation of age-appropriate activities with children.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 2213 Human Sexuality and the Family (DS)
Description: Sexual development emphasizing personal adjustment and interaction with family and culture. Previously offered as FRCD 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Diversity, Society & Human Behavior

HDFS 2223 Foundations in Early Childhood Education
Prerequisites: HDFS 2113.
Description: Historical background of the profession and its future. Opportunities in early childhood as a professional. Developing an awareness of appropriate contexts for learning through realistic experiences in the early childhood classroom. Professional Education requirements introduced. Previously offered as FRCD 2100.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 2233 Development of Creative Expression, Play and Motor Skills in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 2243 and HDFS 2211.
Description: Consideration of appropriate experiences in the areas of play, art, music and motor skills for young children from birth through eight years of age with an emphasis upon such experiences as a curricular base in early educational group settings. Observation and participation experiences with young children. Previously offered as FRCD 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2243 Infant-Toddler Programming
Prerequisites: Concurrent enrollment in HDFS 2211 and HDFS 2233.
Description: Program planning, implementation and evaluation of developmentally appropriate programs for infants and toddlers. Directed observation and participation in infant and toddler programs. Previously offered as FRCD 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2303 The Family Meal
Description: Contextual analysis of family meal time using a bioecological approach to address social, emotional, and cultural diversity in family food preferences and consumption, transmission of dietary habits and behaviors across multiple family generations, and policies, programs, and interventions that impact accessibility and sustainability of nutritional health and well-being among families aging and developing across the human life course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2433 Romance, Love, and Marriage (S)
Description: Theory and research on the formation and development of interpersonal relationships and romantic attachments from dating through courtship and marriage. Scientific insights on building, maintaining, and preserving a healthy love life and marriage. Previously offered as HDFS 3433, HDFS 3143, FRCD 3433, and HIDC 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 2453 Management of Human Service Programs
Description: Designing and managing human service programs: planning, needs assessment, program hypothesis, grant writing, developing human resources, budget management, monitoring and evaluation. Emphasis on accountability. Previously offered as HDFS 3453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2523 Professional Skills in Human Services
Description: Development of professional skills transferable across human services. Including, but not limited to leadership, professional communication, information management, partnership development, networking, advocacy, and professional ethics. Previously offered as HDFS 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 2850 Special Unit Courses in HDFS
Description: Various units taught by specialists in Human Development and Family Science. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 3021 Topics in Early Childhood Education
Description: Current selected problems or topics in early childhood education which influence individual and family risk and resiliency, including NCLB, current legislative issues, policy issues and other topics that are of interest and importance to students enrolled during the semester.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3023 Child Development - Birth to 3
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Major theories and research on development from birth to age 3 including growth patterns, influences of disabilities and risk factors, environmental factors and their effects on attachment styles, language acquisition, brain development, cognitive development, social-emotional development, and perceptual and sensory motor skills. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3024 Literacy Assessment and Instruction in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 4313 and HDFS 4323 and HDFS 4363. Full Admission to Professional Education.
Description: Developmentally appropriate assessment and instructional practices to meet language and literacy needs of children, age birth to 8 years. Based on a constructivist framework, formal and informal assessments will be used to inform classroom practices. Assessments consistent with SBRR, NAEYC and IRA guidelines, with a focus on performance, observation, and interviews will address literacy needs of diverse learners in the context of an EC classroom practicum.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3033 Child Development - 4 to 8
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Physical, cognitive, social/emotional and personality growth and development during early childhood. Major theories of development and current research and ideas in conjunction with historical approaches to examining growth and development in ages 4-8. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3043 Professional Development for Early Childhood Educators
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: The role of a professional as a teacher, administrator or advocate in early childhood programming. Professionalism and ethics, identifying child abuse, and applying universal precautions. Discussion of qualities of the early childhood educator role, program models, and working with children and professional colleagues. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3053 Child Guidance and Classroom Environments
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Developmentally appropriate practice in child guidance through review of current guidance methods and programs to familiarize students with successful guidance techniques. Students will develop their own approach to guidance based upon practices best suited to their own unique skills and strengths. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3063 Health, Safety And Nutrition
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Planning, promoting and maintaining healthy and safe learning/care environments, understanding childhood illnesses and establishing healthy lifestyles, first aid, and maintaining care provider's own health. Maintaining safe relationships with others, including identifying and reporting abuse, neglect, and exploitation of children. Exploration of nutrients for life and feeding, food preparation and safety policies and guidelines, food allergies and intolerances, appropriate feeding practices. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3103 Social Development and Social Studies in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 3202 and HDFS 3213 and HDFS 3223 and HDFS 3233. Full Admission to Professional Education.
Description: Developmentally appropriate social studies curriculum and instruction for young children; content selection, lesson planning, teaching methods, materials and evaluation strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3122 Introduction to Human Development and Family Sciences for Transfer Students
Description: Facilitation for students transferring from other majors or institutions of higher education to the Department of Human Development and Family Science. An exploration of the philosophy, research applications, services, careers, and options within the field of Human Development and Family Science. May not be used for degree credit with HDFS 1112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3123 Parenting (S)
Description: Examination of the fundamental issues and special topics in parent child relationships across the life span. Current theory and empirical research in multiple contexts of family, school and community. Previously offered as FRCD 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 3202 Early Childhood Field Experience II
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3213 and HDFS 3223 and HDFS 3233. Full Admission to Professional Education.
Description: Field experiences in classroom setting working with children in PreK through 3rd grade. Reflective decision making that incorporates the major content area concepts and skills involved in organizing, planning, and developing instruction in early childhood classrooms. Previously offered as HDFS 3201.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 3203 Children's Play: A World Perspective (G)
Description: An examination of children's play in contemporary international cultures. Play in children from birth through late childhood will be reviewed; social and cognitive outcomes will be analyzed as related to complex, modern world systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: International Dimension

HDFS 3213 Literacy Development in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 3202, HDFS 3223, HDFS 3103, and HDFS 3233; Full Admission to Professional Education.
Description: Theoretical and research-based rationale for integrated language arts and an interdisciplinary approach to literacy addressing writing, reading, and oral language development for children birth through age eight. Use of children's literature. Previously offered as FRCD 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3223 Mathematics and Science in Early Childhood
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3202 and HDFS 3213 and HDFS 3233. Full Admission to Professional Education.
Description: Developmentally appropriate mathematics and science curriculum and instruction for young children; content selection, lesson planning, teaching methods, materials, and assessment strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3233 Guidance and Classroom Management in Programs for Young Children
Prerequisites: Concurrent enrollment in HDFS 3103 and HDFS 3202 and HDFS 3213 and HDFS 3223. Full Admission to Professional Education.
Description: Examination of early childhood classroom management and guidance models and practices, including relevant theories, influential research, and developmentally appropriate guidance strategies that facilitate the development of prosocial behaviors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3263 Curriculum Development for Children Ages Birth to 3
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Learn and utilize assessment and documentation to inform curriculum, plan and evaluate developmentally appropriate activities, and learn effective ways to share curriculum information with families for children ages 0-3. Developmental domains and content areas; issues related to diversity in family composition, culture, and individual abilities will also be addressed. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3273 Curriculum Development for Children Ages 4-8
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043.
Description: Learn and utilize assessment and documentation to inform curriculum, plan and evaluate developmentally appropriate activities, and learn about effective ways to share curriculum information with families for children ages 4-8. Developmental domains and content areas; issues related to diversity in family composition, culture, and individual abilities will also be addressed. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3283 Assessing Young Children and their Environments to Enhance Development
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Select, evaluate, and use appropriate assessment tools for children birth to age 8 using assessment data to inform decisions about teaching (environments and practice) and intervention. Emphasis on the ethical use of assessments, validity of assessments, multicultural sensitivity, and assessments for children with special needs. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3293 Understanding and Adapting for Developmental Differences
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063.
Description: Knowledge of disability conditions, assessment and identification, interventions in inclusive environments, and collaborations among family members and service providers. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3303 Administration and Supervision in Early Childhood Settings
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Exploration of issues surrounding the administration of early childhood programs including identification of community needs, analysis of business opportunities, evaluation and appropriate use of space and quality programming, consideration of policy and legal responsibilities, and professionalism in the field. Best practices in staff selection, training, coaching and supervision. Web based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3313 Technology And Young Children
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Electronic technology's impact on the development of young children in educational, home, and community environments and how it can be used in early childhood classrooms to enhance teaching and learning. Students will be critical thinkers and informed consumers of technology related to young children. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3323 Diversity in the Lives of Young Children and Families
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program; SOC 1113; PSYC 1113; and HDFS 2113 or equivalents.
Description: Exploration of cultural diversity in daily life and beliefs in families with young children. The focus is on U.S. families, with attention to the multiple cultures from which they come. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3333 Working with Families
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 2113.
Description: Application of an ecological model to the understanding of variation in parental roles, perspectives, relationships, approaches, and challenges. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3413 Infant and Child Development
Description: Examination of continuity and change in physical, cognitive/language, and socioemotional development from the prenatal period through early middle childhood (age nine). Diverse contexts, directed observation of infants and children. Previously offered as FRCD 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3423 Adolescent and Youth Development (S)
Description: Youth and adolescent development within the context of family, peer, school, and community relations. Focus on physical, intellectual and socio-emotional change and adaptation involving autonomy, identity, sexuality, peer-relationships, and vocational choice. Directed observation of pre-adolescent and adolescent children. Previously offered as FRCD 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 3443 Family Dynamics
Description: Foundational theories on the dynamics of family systems across the life course and within the social context. Application of evidence-based research to inform professional practice with families. Additional insight on prevention and intervention strategies to reduce risk and increase resilience in families. Previously offered as FRCD 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3513 Research Methods in Human Development and Family Science
Prerequisites: "C" or better in STAT 2013 or STAT 2023 or STAT 2053.
Description: Examination of fundamentals of scientific method as applied to research in human development and family science. Research design, sampling, and measurement. Analytical, evaluative, and interpretive skills needed to understand the professional research literature. Application of statistical analysis to research in human development and family science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3603 Family and Consumer Sciences Classroom Management and Educational Foundations
Description: Emphasis on the principles and practices of effective classroom management needed in contemporary FCS programs by Cooperative Extension Service educators and public school teachers; observation hours required. Historical and contemporary influences on the development and mission of Family and Consumer Sciences Education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 3623 Field Experiences in Family and Consumer Sciences Education
Prerequisites: HDFS 3603.
Description: Supervised Family and Consumer Sciences Education field experiences specific to Cooperative Extension Service and public schools. A minimum of 60 observation hours are required.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 3813 Tech-Enabled Families
Description: Examination of how individuals and their family members adopt and use digital platforms, social media, and AI tools to communicate, monitor behaviors, and support healthy living. Special emphasis on how technology impacts physical, mental, and social development and the health and well-being of individuals and their family members across the life course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4000 Senior Thesis
Prerequisites: Consent of instructor.
Description: Supervised research for the bachelor's degree. Previously offered as FRCD 4000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4023 Practicum II in Early Childhood
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3023, HDFS 3033, HDFS 3043, HDFS 3053, HDFS 3063, HDFS 4013.
Description: Guided learning experience in a professional agency that provides services to children and families. Learning experiences and projects will provide teacher candidates the opportunity to utilize and implement theories and practices learned in other ECE classes. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4036 ECCD Senior Capstone
Prerequisites: Admission to Great Plains IDEA Early Childhood Non-certification program and HDFS 3273, HDFS 3283, HDFS 3293, HDFS 3303, HDFS 3313, HDFS 3323, HDFS 3333, and HDFS 4013.
Description: This course focuses on integrating, extending, critiquing, and applying the knowledge gained within the Early Child Care and Development (ECCD) degree program within the context of a unified early childhood education profession through lecture, field experience, and action research. Previously offered as HDFS 4033.
Credit hours: 6
Contact hours: Lecture: 3 Contact: 6 Other: 3
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Human Dev & Family Sci

HDFS 4313 Early Childhood Field Experience III
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4323 and HDFS 4363. Full Admission to Professional Education.
Description: Field experience in PreK through 3rd grade setting. Develop philosophical perspectives of teaching, consider effective family-teacher relationships, and connect with the wider community as a resource context for teaching and learning. Plan and teach an integrated curriculum unit. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4323 Family, School, and Community
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4313 and HDFS 4363. Full Admission to Professional Education.
Description: Examination of family theories, family relationships with schools and communities, and implications for early childhood practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4333 Early Childhood Capstone
Prerequisites: Concurrent enrollment in HDFS 4339 and full admission to Professional Education.
Description: Examination of the role of the early childhood professional in broader society contexts such as policy, advocacy, research and funding. Previously offered as FRCD 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4339 Student Teaching in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 4333, and full admission to Professional Education.
Description: A prekindergarten through grade three classroom teaching experience under the direction of a certified early childhood teacher and an early childhood education faculty member. Previously offered as HDFS 4226.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4363 Integrated Curriculum in Early Childhood Education
Prerequisites: Concurrent enrollment in HDFS 3024 and HDFS 4313 and HDFS 4323. Full Admission to Professional Education.
Description: Develop a conceptual and applied understanding of early childhood curriculum, with an emphasis on integration across subject matter areas, differentiation, and assessment-informed instruction. Plan and implement an integrated curriculum unit. Previously offered as HDFS 3243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4373 Early Childhood Health & Well-Being
Prerequisites: HDFS 2113.
Description: Examination of issues in early childhood health and well-being, including physical health; infant and early childhood mental health; nutrition, exercise, and childhood obesity; safety; resilience; and exposure to biological and psychosocial risks that impact health. Exploration of policies and programs related to children's health and well-being, as well as identification of practical implications for promoting children's health and well-being.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4393 Neuroscience of Adversity
Prerequisites: HDFS 2113 or PSYC 1113, or equivalent.
Description: Influence of trauma and chronic stress on the brain, body, and behavior, and environmental factors contributing to resilience throughout development. Trauma-informed policies, initiatives, and interventions will also be discussed and evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4413 Successful Aging (S)
Description: Examination of unique characteristics that promote positive adult development during the second half of life. Emphasis on biopsychosocial processes during the middle and older adult years that influence physical, mental, and social development and well-being of the individual and their family members. Previously offered as FRCD 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 4423 Family Risk and Resilience
Description: Examination of selected theoretical approaches; areas of family risk; protective factors; individual and family qualities relating to resilience; and prevention and intervention strategies. Previously offered as FRCD 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4433 Family Life Education
Description: History, philosophy and principles of family life education. Design, implementation, and evaluation of family life programs for community and education settings. Community-based field observation and experience. May not be used for degree credit with HDFS 5113. Previously offered as FRCD 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4473 Policy, Law and Advocacy
Description: The study of local, state, and federal legislations, regulations, social policies, and advocacy that affect children and families. Domestic relations, child welfare, health, education, social services, employment and housing. Previously offered as HIDC 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4520 Student Teaching in Family and Consumer Sciences Education
Prerequisites: Full admission to Professional Education.
Description: Directed experience in an approved Family and Consumer Sciences classroom. Applications of methods and skills in Family and Consumer Sciences education as related to selecting, adapting, using, and evaluating curriculum materials, including experiences to meet educational goals and to facilitate learning for individual students. Experiences will also involve responsibilities with other school personnel and parents. Offered for variable credit, 6-9 credit hours, maximum of 9 credit hours.
Credit hours: 6-9
Contact hours: Contact: 6-9 Other: 6-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4521 HDFS Child and Family Services: Pre-Internship
Prerequisites: HDFS 1112 or HDFS 3122 and HDFS 2523 and EDHS 1112 or EDHS 3112, all with a "C" or better.
Description: Preparatory workshop for HDFS Child and Family Services internship.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4533 Critical Issues in Human Development and Family Science
Prerequisites: Senior standing.
Description: An examination of the place of Human Development and Family Science in the context of broader themes. An exploration of the students' specialization and its implications for an educated life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4543 Intergenerational Relationships (S)
Description: Analysis of relationship dynamics transmitted across multiple family generations. Special emphasis on adult child-older parent relations, adult sibling interactions, grandparents raising grandchildren, in-law relationships, and fictive kinship bonds. Insights on community-based services, programming and policies for multi-generational families. Previously offered as FRCD 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Society & Human Behavior

HDFS 4563 Internship in Child and Family Services I
Prerequisites: HDFS 1112 or HDFS 3122 and HDFS 2523 and HDFS 4521 and senior standing and consent of advisor and instructor.
Description: Supervised field experience applying HDFS knowledge and skill base. Must complete application for internship. This component of the internship includes class assignments that demonstrate application of HDFS knowledge and skill base.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4572 Internship in Child and Family Services II
Prerequisites: HDFS 1112 and HDFS 3122 and HDFS 2523 and HDFS 4521 and HDFS 4563, senior standing, and consent of advisor and instructor.
Description: Supervised field experience applying HDFS knowledge and skill base. Must complete application for internship. Previously offered as HDFS 4525.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4573 Introduction to Marriage and Family Therapy
Description: Introduction to the field of Marriage and Family Therapy (MFT). Includes theoretical foundations of the disciplines as well as assignments that demonstrate the application of the theories in a family therapy session. May not be used for degree credit with HDFS 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4583 Disabilities in the Family and Community Context
Description: Intellectual and developmental disabilities from a systemic perspective, emphasizing the role of families and communities across the lifespan. Current policy, research, and practice for community inclusion and family support. Conceptual frameworks for understanding of and practice with individuals with intellectual and developmental disabilities and families will include family systems and ecological perspectives. May not be used for degree credit with HDFS 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4713 Family Resource Management
Description: Examination of individual and family management of interpersonal, financial, workplace, social, and community resources over the lifespan. Includes and emphasis on decision making within the family system, particularly for families with issues that affect timing and balancing of resource management. May not be used for degree credit with HDFS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4750 Topics In HDFS
Prerequisites: Consent of instructor.
Description: Various units of work related to specific issues in Human Development and Family Science. Previously offered as FRCD 4750. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4793 International Families (GS)
Description: Family structures and interactions that transcend specific cultures or nationalities. Examination of specific cultural and international family forms, their social issues, and relevant human and family services to meet their needs. Exploration of topics surrounding immigrant family health and mental health, language erosion, and cultural comparisons of family beliefs, customs and practices. Previously offered as FRCD 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: International Dimension, Society & Human Behavior

HDFS 4813 Dying, Death and Bereavement
Description: Physical, psychological, emotional and social aspects to dying and death across the life course. Examination of human experiences with and responses to dying and death within various contexts such as family, medical and cultural.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4823 Family Caregiving
Description: Fundamentals of family caregiving across the life course continuum involving aging and disability, medical and mental healthcare, and legal and ethical issues. Special focus on family caregiver roles, work-life balance, access to community resources, financing of care, and self-care practices. Implications for professional practice, family therapy, community education, and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4833 Human and Family Longevity
Description: Exploring the secrets to living a long, healthy, and meaningful life. Analysis of physical, mental, and socio-cultural factors that improve human and family health and well-being, increase healthy life-expectancy, and promote human survival among individuals, within families, and across communities in United States and around the world, including longevity Blue Zones. Implications for designing services, implementing programs, and developing policies to support long-lived adults, their family members, and community resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4850 Special Courses in Human Development and Family Science
Prerequisites: Consent of instructor.
Description: Various courses related to specific issues in Human Development and Family Science. Previously offered as FRCD 4850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 4900 Honors Creative Component
Prerequisites: College of Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in College of Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral exam. Previously offered as FRCD 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci
General Education and other Course Attributes: Honors Credit

HDFS 4913 Instructional Methods in Family and Consumer Sciences
Description: Development of Family and Consumer Sciences Education instructional materials for both Cooperative Extension Service and public school settings. Observation hours required. May not be used for degree credit with HDFS 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 4950 Research Practicum in HDFS
Prerequisites: Consent of instructor.
Description: Hands-on research experience under the direction of faculty members in various human development and family science topics. Graded pass/fail. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5000 Master's Thesis
Description: Research in HDFS for MS degree. Previously offered as HDFS 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5013 Assessment for Aging Research
Description: State-of-the-art knowledge and experiential field-based application of observational skills, interviewing techniques, online survey applications, and clinical diagnostic tools used to screen, assess, and study the biological, psychological, and social functioning of older adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5023 Introduction to Marriage and Family Therapy
Description: Introduction to the field of Marriage and Family Therapy (MFT). Includes theoretical foundations of the disciplines as well as assignments that demonstrate the application of the theories in a family therapy session. May not be used for degree credit with HDFS 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5043 Technical Writing in HDFS
Description: Overview of writing in HDFS research. Topics will include literature reviews and APA formatting. Writing assignments will focus on conference abstracts/presentations, short and long literature reviews, empirical articles, and manuscript reviews.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5053 Gerontechnology
Description: This course takes an interdisciplinary approach to the understanding of the biological, environmental, and social spheres where technology and gerontology meet. Topics include the interrelationship between population dynamics and technological change, technological research and devices that may improve older adults' lives, particular issues for rural communities, and the social and cultural meanings, challenges, and benefits of technologies designed for older adults and their care providers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5083 Disabilities in the Family and Community Context
Description: Intellectual and developmental disabilities from a systemic perspective, emphasizing the role of families and communities across the lifespan. Current policy, research, and practice for community inclusion and family support. Conceptual frameworks for understanding of and practice with individuals with intellectual and developmental disabilities and families will include family systems and ecological perspectives. May not be used for degree credit with HDFS 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5110 Directed Study in HDFS
Description: Directed individual study in human development and family science. Offered for variable credit, 1-9 credit hours, maximum of 12 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5112 Computer Applications in HDFS Research
Description: Creating variable codebooks, data coding, data entry, variable specifications and data manipulation, merging files, and basic analysis using SPSS software. No computer experience necessary. Previously offered as FRCD 5112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5113 Family Life Education
Prerequisites: HDFS 2113 and HDFS 3123 and senior standing.
Description: Philosophy and principles of family life education. Planning, implementing, and evaluating family life programs in community and education settings. Field experience. May not be used for degree credit with HDFS 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5123 Research Methods and Design in HDFS
Description: Research processes, design, methods, and program evaluation in human development and family science. Application of research tools and methods to investigate theoretical, empirically-based, or field-based research issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5133 Research Methods in HDFS II
Prerequisites: HDFS 5123.
Description: The steps involved in writing a research proposal, including writing a literature review, research goals, and hypotheses. Developing procedures and measures used to test the hypotheses. How to compute and interpret statistical analyses common to thesis projects (e.g., internal consistency, descriptive statistics, ANOVAs, correlations, and regressions).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5153 Policy in Human Development and Family Science
Description: Critical analysis of approaches to and models of policy in Human Development and Family Science. Examination of policy analysis and evaluation, development, advocacy, and implementation of state and federal policy and legislation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5160 Master's Creative Component
Prerequisites: HDFS 5253, HDFS 5293, HDFS 5513 or HDFS 5523 or equivalent and consent of instructor.
Description: Creative application of student's knowledge to solve a problem of interest in HDFS. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5163 Master's Capstone in HDFS
Description: Development and implementation of a capstone project related to an area of human development and family science. Interfaces with field experience and involves the integration of theory, research, and application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5173 Program Design, Implementation, and Evaluation in Human Development and Family Science
Prerequisites: Online Section Admission to the HDFS Family and Community Services GPIDEA Graduate Program; Campus-based Section Admission to the HDFS Graduate Program or consent of instructor.
Description: An exploration of the principles and methods of program design, implementation, and outcome evaluation of family and community programs. Previously offered as HDFS 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5183 Practicum in Developmental and Family Sciences Research
Prerequisites: Admission to graduate study in HDFS, nine hours of graduate credit in HDFS, and consent of instructor.
Description: Supervised research experiences in human development and family sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5193 Reflective Practice
Description: An exploration of the principles and methods of reflective practice. Reflective journaling and group interactive dialogue based on the application of theoretical models. Supervised field experiences in community settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5203 Family Systems
Description: Research and theory related to family functioning throughout the life cycle, especially financial decision making during crisis and conflict. Factors that shape family values, attitudes and behaviors from a multicultural perspective. New and emerging issues critical to family functioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5213 Lifespan Development
Prerequisites: Online GPIDEA Section Admission to the HDFS Family and Community Services GPIDEA Graduate Program. Campus based Section Admission to the HDFS Graduate Program or consent of instructor.
Description: An examination of human development including the cognitive, social-emotional, motor, language, and moral domains from both a lifespan and a bio-ecological perspective. Previously offered as FRCD 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5223 Resilience in Individuals and Families
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: Exploration of resilience approaches to the study of families and human development across the life cycle. Web-based instruction. Previously offered as 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5233 Infant Mental Health
Description: Foundations of infant mental health theory, research, and practice. Includes the familial context of children's early development and the importance of infant-caregiver relationships, early intervention, assessment, and reflective practice. Emphasis is placed on the application of infant mental health principles across settings and disciplines focused on early childhood and families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5243 Infant and Early Childhood Development and Attachment
Description: Survey of research and theory pertaining to infant and early development and attachment. Content includes cognition and learning, social and emotional development, and assessment. An emphasis is placed on attachment and implications for practitioners working with young children and their families. Previously offered as FRCD 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5253 Theory and Research: Social and Emotional Development
Description: Research and theory pertaining to social and emotional development, including attachment and family context, social interaction, friendships and temperament. Incorporates applications to policy and practice. Previously offered as HDFS 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5263 Theory and Research: Cognitive and Language Development
Description: Research and theory pertaining to cognitive and language development including environmental influences and family influences, attention and memory, problem solving, and social cognition. Incorporates applications to policy and practice. Previously offered as HDFS 6243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5273 Parent Education
Prerequisites: Consent of instructor.
Description: Parent-child relations, parenting strategies, and other major components of empirically validated parent education programs that lead to certification. Supervised practice. Previously offered as FRCD 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5283 Developmental Disabilities
Description: Overview of contemporary research, theory, practice, and policy in the field of developmental disabilities with a primary focus on individuals with intellectual disability and their family members. Previously offered as HDFS 6373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5290 Practicum
Prerequisites: Consent of instructor.
Description: Supervised experience in various settings relevant to human development and family sciences. Previously offered as FRCD 5290. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5293 Human Development Theory
Description: Examines theories and models of human development in a family context using a lifespan perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5313 Creativity and Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology program.
Description: Developmental and pathological changes in the brain that can lead to changes in creative output over time. Hands-on experience and direct association with older adults to grow an appreciation for creativity produced and inspired by older people. Provides experiences for development of art programs for older adults. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5323 Issues in Early Childhood
Description: Systematic examination and in-depth reflection on selected issues and trends in early childhood education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5333 Early Childhood Education History and Theory
Description: The history of early childhood education and theoretical approaches for planning educational programs and learning experiences for young children. Previously offered as FRCD 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5343 Developmental Assessment and Interventions
Description: Applications of qualitative and quantitative approaches to observation and developmental assessment and intervention strategies for students preparing to become specialists or practitioners working with children and families, including early childhood educators, child and parenting practitioners, and human service practitioners. Previously offered as FRCD 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5353 Diversity in Early Childhood
Description: Exploration and critical review of the state of early childhood programming with emphasis on research, theory, and policy making that bear on current diversity and multicultural issues in practice. Previously offered as FRCD 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5363 Early Childhood Development and Education
Description: The interaction of biology, family, culture, and extended environment on children's emotional, social, and cognitive development during the early childhood years. The implications of regularities and diversity in development for teaching and learning and on principles of educational practice to enhance development. Previously offered as FRCD 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5373 Early Childhood Administration
Description: Examination of the administration, management, and supervision of programs for young children. Legal, social, and economic conditions affecting programs. Previously offered as FRCD 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5400 Professional Seminar in Gerontology
Description: An integrative experience for gerontology students designed to be taken near the end of the degree program. By applying knowledge gained in earlier course work, students strengthen skills in ethical decision-making and behavior, applying these skills in gerontology-related areas such as advocacy, professionalism, family and workplace issues. Students from a variety of professions bring their unique perspectives to bear on topics of common interest. Web-based instruction. Offered for fixed credit, 3 credit hours, maximum of 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5403 Foundations in Integrative Aging Studies
Description: This course introduces foundational concepts to the interdisciplinary field of gerontology and aging studies, including: core theories of adult development and aging, how to be critical consumers of aging research, developing writing and other professional skills, and exploring career options in aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5411 Ethics and Aging
Description: Analysis of ethical issues for the aging population. Critical examination of various ethical issues from legal, psychological, social, and financial perspectives. Enrollment requires attendance of the one-day, Oklahoma Ethics and Aging Conference.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5413 Contemporary Perspectives in Adult Development and Aging
Description: Biopsychosocial dimensions of human aging from a lifespan development perspective with an integrative perspective that (a) considers the impact of early development and socio-historical influences on late life development; (b) emphasizes aging processes across diverse groups and contexts, and (c) identifies pathways to optimal functioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5423 Research Perspectives in Gerontology
Description: Critical review of gerontological literature. Special emphasis on current knowledge related to research methodologies, measurement applications, and clinical interventions used to study age-related processes and outcomes. Previously offered as FRCD 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5433 Theories of Aging
Description: Addresses the historical, contemporary and interdisciplinary basis of aging theory. Biological, psychological, sociological and human developmental conceptualizations of aging are critically assessed. Emphasis is placed on conceptual models, as well as theoretical development and application within gerontological research and the field of aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5443 Interpersonal Relationships
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of interpersonal relationships in context, including theoretical perspectives, research methods, relationship forms, and relationship processes. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5453 Aging in the Medical Context
Description: Orients students to the unique issues related to health and the health system for individuals in later life. A particular focus is placed on health programs, the role of medical personnel and tasks of family members as older persons face health issues and decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5463 Biological Principles of Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Introduction of basic biological principles that govern aging. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5470 Developments and Innovations in Human Development, Family Science, and Early Childhood Education
Description: Analysis of current developments and innovative practices in one or more of the specified areas. Emphasis upon evolving concepts with implications for programs serving societal needs in these areas. Previously offered as FRCD 5470. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5473 Seminar in Long-Term Care
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Topics of interest for those in leadership roles in long-term care facilities, or senior living organizations. Draws on expertise of leaders in the field. Case studies are used to understand application of the material. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5483 Aging Network Seminar
Description: Orientation to community-based aging services and programs for older adults with consideration of professional ethics, state and federal legislation, and long-term care advocacy. Additional emphasis on career networking with aging service practitioners and providers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5493 Aging and Diverse Families
Description: Examination of contemporary family theories, contexts, behaviors, and policies impacting older adults. Special emphasis on family inclusion, diversity, and equity as it relates to family dynamics and transitions, intergenerational relationships from mid-life into old age, and governmental policies, professional ethics, and caregiving practices concerning older adults and their families.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5503 Family Diversity
Description: Examination of theory and research on diversity in families such as race, ethnicity, age, sexual orientation, gender, socioeconomic status, disability, or religion. Emphasis on effectively addressing family diversity in systemic assessment, practice, and policy. May not be used for degree credit with CPSY 5503 or PSYC 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5513 Issues in Family Science
Description: Current and classic literature in family studies. Consideration of philosophical bases and current research issues relevant to the family as a field of study. Previously offered as FRCD 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5523 Family Theory
Description: Foundation of theoretical frameworks and processes in family science. Overview of the interface between theory, research, and application in family science. Previously offered as FRCD 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5533 Perinatal and Reproductive Health
Description: Examination of perinatal, family planning, and reproductive health issues, programs, services, and policies. Emphasis on empirically-based interventions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5543 Family Crisis and Trauma
Description: Strategies for helping families deal with trauma and various family crises including illness, death and divorce. Focus on dealing with these from a family systems approach. Previously offered as FRCD 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5553 Perspectives on Parenting and Parent Education
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of theories, models, methods, research, and skills related to parenting and parent education. Web-based instruction. Previously offered as FRCD 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5563 Community and Family
Prerequisites: Admission to the HDFS Graduate Program.
Description: Examination of current research and theory in the interactions of families and communities. Emphasis on empirical strategies for intervention to address community and family-based problems. Previously offered as HDFS 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5573 Adolescent in Family Context
Description: Physical, social, emotional and intellectual development of adolescents within the context of family relationships. Exploration of research and theory as it relates to adolescent development and parent-adolescent relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5583 Human Sexuality
Description: Understanding human sexuality within a relational and developmental perspective, including physiological and psychosexual development and response, sexual relationships, sexual dysfunctions, treatment processes, and educational programming. Previously offered as FRCD 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5593 Sexuality & Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Understanding of issues regarding sexuality and aging. Normative aspects of sexuality in later life and issues that arise that impact sexuality such as chronic illness, cognitive decline, and functional limits. Perspectives of aging persons who are active and independent in the community, to those who live in a variety of care settings. An interdisciplinary perspective on the interactions of the biological, psychological, social influences that shape our understanding of sexuality in later life. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5603 Pre-Practicum in Marriage and Family Therapy: Counseling Skills
Prerequisites: Admission to the marriage and family therapy specialization and consent of instructor.
Description: Pre-clinical experience for students in the marriage and family therapy (MFT) specialization, emphasizing counseling skills and structured observations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5612 Pre-Practicum in Marriage and Family Therapy: Group Processes
Prerequisites: Admission to marriage and family therapy specialization and consent of instructor.
Description: Pre-clinical experience for students in the marriage and family therapy specialization emphasizing group processes, designing and running therapy groups. Previously offered as FRCD 5612.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5613 Theoretical Models of Marriage and Family Therapy
Description: An introduction to the historical context of marriage and family therapy. An overview of the major schools of marriage and family therapy and emerging models. Previously offered as FRCD 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5623 Systems Theory and Applications to the Family
Description: Examination of the cybernetic roots and terminology used with general systems theory providing an understanding, appreciation and integration of the role of "systems" approaches to family theory and clinical practice. Previously offered as FRCD 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5633 Couples Treatment in Marriage and Family Therapy
Prerequisites: Graduate standing or consent of instructor.
Description: Focus on assessment of couples and the systemic interventions available to address common couple issues. Pre-marriage, divorce and remarriage, sexuality, domestic violence, infidelity, and gender. Previously offered as FRCD 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5643 Child and Adolescent Treatment in Marriage and Family Therapy
Prerequisites: Graduate standing or consent of instructor.
Description: An overview of the issues surrounding children and adolescents in marriage and family therapy including child abuse and neglect, drug abuse, oppositional behaviors, ADHD, and family structures and hierarchies. Assessment and treatment methods. Strategies for engaging families. Previously offered as FRCD 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5653 Systemic Approaches to Psychopathology and Psychopharmacology
Prerequisites: Graduate standing or consent of instructor.
Description: Overview of major mental disorders and other conditions that maybe the focus of clinical mental health treatment. Treatment issues and an introduction to psychopharmacology. Previously offered as FRCD 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5663 Professionalism and Ethics in Marriage and Family Therapy
Prerequisites: Graduate standing and consent of instructor.
Description: The development of the professional attitude and identity of a marriage and family therapist. The AAMFT Code of Ethics, family law, ethnicity, and gender issues, as related to the practice and profession of marriage and family therapy. Previously offered as FRCD 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5673 Family Dynamics of Addiction
Prerequisites: Graduate standing and consent of instructor.
Description: An examination of the theory and research related to addictive behaviors within couple and family relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5683 Spirituality and Aging
Prerequisites: Admission to the Great Plains IDEA Gerontology Program.
Description: Spirituality in later life from developmental, ethical, multicultural, and applied perspectives. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5690 Marriage and Family Therapy Practicum
Prerequisites: Admission to the marriage and family therapy program and consent of instructor.
Description: Supervised clinical experience for students in the marriage and family therapy specialization. Previously offered as FRCD 5690. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5693 Child Treatment Practicum in Marriage and Family Therapy
Prerequisites: Admission to the marriage and family therapy program and consent of instructor.
Description: Supervised clinical experience focusing on the treatment of children within a family context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5703 History and Philosophy of Family and Consumer Sciences in Cooperative Extension
Prerequisites: Admission to the IDEA HDFS Family and Consumer Sciences Education MS program.
Description: Focus on the historical and philosophical foundations of Cooperative Extension, particularly the Family and Consumer Sciences programs and 4-H youth development programs. Designed for individuals who are currently working or who plan to work in Family and Consumer Sciences Cooperative Extension programs at the county, district, state, and/or federal level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5713 Individual and Family Resource Management
Description: Survey course of personal finance and family resource management literature to provide an overview of how individuals and family members develop and exercise their capacity to obtain and manage resources to meet life needs. Resources include the self, other people, time, money, energy, material assets, space, and environment. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5723 Socioemotional and Cognitive Well-being Throughout Adulthood
Description: This course addresses cognitive, social, and emotional health in adulthood and later life including typical and atypical changes such as wisdom, dementia, coping, and depression. Contrasting theoretical frameworks and considering positions of access and resilience, students will examine personality, mental health, and cognitive and brain functioning during adulthood and review methods to enhance psychological health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5733 Implementation of Community Programs for Older Adults
Description: This course addresses theoretical and practical aspects of community-based efforts to influence the well-being of older adults. Examines literature from gerontological, prevention science, human sciences, and community health approaches. Provides an overview of the program development, implementation, evaluation, and management of aging-related programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5750 Seminar in Human Development and Family Science
Description: Current research in human development and family science. Critical study of classic and current research. Previously offered as FRCD 5750. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 5753 Leadership and Management of Community Service Programs
Prerequisites: Admission to the HDFS GPIDEA Graduate Program.
Description: An examination of leadership and management concepts related to the effective administration of community-based agencies. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5763 Adult Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Development, administration, and evaluation of Family and Consumer Sciences programs focused on adult learners. Applications for Cooperative Extension are highlighted.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5773 Family Dynamics and Addiction Treatment
Prerequisites: HDFS 5673.
Description: Research, theory, and working with families with addiction across social contexts such as culture. Addresses techniques of prevention, intervention, family treatment, and recovery in individuals and family systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5783 Methods of Statistical Analysis in HDFS 1
Description: An overview and application of basic statistical concepts, models, and methods for the quantitative analysis of development and change. Course topics to include descriptive statistics, hypothesis testing, analysis of variance, chi-square, t-test, and bivariate correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5793 Methods of Statistical Analysis in HDFS 2
Prerequisites: HDFS 5783.
Description: Quantitative models of development and change derived from empirical research utilizing multivariate research design and procedures. Course topics to include multivariate regression techniques for experimental and non-experimental research in human sciences research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5803 Critical Science Issues in Family and Consumer Sciences Education
Prerequisites: Admission to the IDEA HDFS Family and Consumer Sciences Education MS program.
Description: Focus on critical science as a theoretical framework and as a practical/rational process for addressing significant and complex problems facing families. Application of principles of critical science to Family and Consumer Sciences Education professional practice and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5810 Current Issues in Family and Consumer Sciences Education
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Analysis of current issues specific to Family and Consumer Sciences Education. Web-based instruction. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5813 Practicum in Human Development and Family Science
Prerequisites: Admission to graduate study in HDFS, 9 hours of graduate credit in HDFS, and consent of instructor.
Description: Supervised experiences in child development, and family services or health-related settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5823 History and Philosophy of Family and Consumer Sciences Education
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Historical, philosophical, and legislative bases of Family and Consumer Sciences Education in Cooperative Extension Service, public schools, and higher education. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5833 Occupational Programs in Family and Consumer Sciences
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Planning and implementing occupational Family and Consumer Sciences programs and courses. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5843 Reading in the Content Areas of Family and Consumer Sciences Education
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Incorporating reading skills in Family and Consumer Sciences Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5853 Adolescent Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Exploration of adolescent cognitive, physical, social and emotional characteristics, with application to providing group and individual learning experiences in Cooperative Extension Service and public school settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5863 Exceptional Learners in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Strategies for working with youth, adolescent, and adult exceptional learners in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5873 Technology in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Incorporation of technology applications in Family and Consumer Sciences Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5883 Family and Consumer Sciences in a Pluralistic Society: Foundations and Issues
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Discussion of contemporary issues within the context of multicultural influences and cultural diversity in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences settings. Critique of instructional materials and resources for Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5893 Addressing Family Issues and Public Policy Through Family and Consumer Sciences Education
Prerequisites: Admission to the Great Plains IDEA Family and Consumer Sciences Education program.
Description: Assessment of how Family and Consumer Sciences Education professionals can impact family and community issues. The role of the educator in critically examining these issues through FCS programs. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5903 Instructional Methods in Family and Consumer Sciences
Description: Development of Family and Consumer Sciences Education instructional materials for both Cooperative Extension Service and public school settings. Observation hours required. May not be used for degree credit with HDFS 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5913 Foundations and Principles of Family and Community Services
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: An introduction to the field of family science and related professions that involve working with individuals and families in communities. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5923 Dynamics of Family Interaction
Prerequisites: Admission to the Great Plains IDEA Graduate Program.
Description: An examination of theories of family function and dysfunction, techniques of assessment, and models of family intervention. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5943 Development of Instructional Materials for Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Development of individual and group materials for youth, adolescent, and adult Family and Consumer Sciences programs in Cooperative Extension Service, public school, and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5953 Research Experience in Family and Consumer Sciences
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Development of a research project related to Family and Consumer Sciences in a Cooperative Extension Service, public school, or higher education setting. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5963 Evaluation and Assessment in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Procedures for appraisal of individual growth and achievement in all subject areas in Family and Consumer Sciences Education for Cooperative Extension Service, public school, and higher education settings. Development of evaluative instruments for cognitive, affective, and psychomotor learning. Techniques for interpretation of data. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5973 Administration of Family and Consumer Sciences Education Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Emphasis on educational leadership and related issues in Cooperative Extension Service, public school, and higher education Family and Consumer Sciences settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5983 Techniques of Supervision in Family and Consumer Sciences Programs
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Philosophy, responsibilities, and techniques for supervising in Family and Consumer Sciences Cooperative Extension Service, public school and higher education settings. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 5993 Special Topics in Family and Consumer Sciences Education: 4-H and FCCLA
Prerequisites: Admission to the HDFS Great Plains IDEA Graduate Program.
Description: Techniques for developing and managing 4-H and FCCLA programs as part of Cooperative Extension Service and public school Family and Consumer Sciences programs. Web-based Instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Research in education and human sciences for the PhD degree under supervision of a graduate faculty member. Previously offered as FRCD 6000. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6100 Doctoral Seminar in Human Development and Family Science
Description: Selected topics in human development and family science focusing on current theory, research, or application. Previously offered as HDFS 6101. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6110 Doctoral Directed Study in HDFS
Prerequisites: HDFS 5253, HDFS 5293, HDFS 5513, HDFS 5523 or equivalent and consent of instructor.
Description: Doctoral level directed individual study in human development and family science. Previously offered as FRCD 6110. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6112 Teaching Seminar in Human Development and Family Science
Description: Introduction to teaching about development and relationships in higher education. Students will learn how to develop syllabi, present material, create innovative assignments, assess student work, and manage conflicts and difficult discussions in the classroom.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6113 Professional Development in HDFS
Description: Systematic introduction to the department faculty and research, doctoral program requirements and expectations and aspects of career development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6121 Teaching Practicum in Human Development and Family Science
Description: Application of the theories and methods learned in HDFS 6112, and receive regular peer and mentor observation and assessment of classes. Previously offered as HDFS 5190.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6123 Risk and Resilience in Human Development and Family Science
Prerequisites: HDFS 5213 and HDFS 5513.
Description: Integration of current research and theory in human development and family science to address current issues in individual and family risk and resilience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6133 Advanced Research Methods in Human Development and Family Science
Prerequisites: One course in research methods and one in statistics.
Description: Research design and analysis of data appropriate to the areas of human development and family science. Previously offered as FRCD 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6143 Structural Equation Modeling for HDFS Applications
Prerequisites: HDFS 6133, REMS 6013 or equivalents.
Description: Introduction to structural equation modeling (SEM) with applications to longitudinal and grouped data typical of research in Human Development and Family Science. Includes elementary matrix algebra, measurement models (factor analysis), and latent path models, such as growth curve models. Applications using appropriate statistical software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6153 Multilevel Modeling for HDFS Applications
Prerequisites: HDFS 6133 and REMS 6013 or equivalents.
Description: Introduction to advanced statistical methods for analyzing longitudinal and grouped data. Multilevel modeling is emphasized, with brief introductions to other advanced statistical procedures, such as survival analysis and developmental trajectory analysis. Models include occasions nested within persons and persons nested within groups. Applications using appropriate statistical software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6190 Research Internship
Prerequisites: Consent of Instructor.
Description: Special research studies under the supervision of a graduate faculty member. Previously offered as FRCD 6190. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Human Dev & Family Sci

HDFS 6223 Risk and Resilience in Human Development
Prerequisites: HDFS 5253 or HDFS 5293 or equivalent course.
Description: Critical analysis of research and theory on risk and resilience processes in human development across the life course. Emphasis on roles of families in enhancing resilience. Demonstration of application to selected aspects of individual development. Previously offered as FRCD 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6273 Parent-Child Relations
Description: Examination of theory and research related to parenting and the impact of parenting on the well-being of children, parents and the broader family system. Previously offered as HDFS 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6283 Seminar in Human Development
Prerequisites: HDFS 5213 and HDFS 5293.
Description: Selected topics in human development with special attention to recent research and current theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6363 Theories and Research in Early Communication Development
Prerequisites: HDFS 5213, HDFS 5223 or consent of instructor.
Description: Recent theories and research in language communication development, including receptive and active language and the relationship of language to early social and cognitive development. Previously offered as FRCD 6363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6523 Advanced Family Theory
Prerequisites: HDFS 5523.
Description: Family theory process, including logic, theory construction, and relating conceptual orientations to current research areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6553 Marital and Couple Relationships
Description: In-depth analysis of historical and contemporary research on developmental and relational processes in marital and couple relationships. Emphasis on research and theory addressing the nature, dynamics and developmental course of committed couple relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6583 Seminar in Family Science
Prerequisites: HDFS 5513 or HDFS 5523 or consent of instructor.
Description: Current research and theory in selected topics in family science. Previously offered as HDFS 6580.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Human Dev & Family Sci

HDFS 6613 Contemporary Issues in Marriage and Family Therapy
Prerequisites: Admission to marriage and family therapy specialization.
Description: Critical issues facing students in the marriage and family therapy (MFT) specialization, while taking advantage of the unique expertise of clinical faculty. Professional seminar on dialogue with participants taking an active role in the learning process. Previously offered as FRCD 6613.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Discussion
Department/School: Human Dev & Family Sci

Undergraduate Programs

- Early Child Care and Development, BS (p. 2032)
- Human Development and Family Science: Child and Family Services, BS (p. 2034)
- Human Development and Family Science: Early Childhood Education, BS (p. 2037)
- Human Development and Family Science: Family & Consumer Sciences Education, BS (p. 2040)

Graduate Programs

Graduate study in the Department of Human Development and Family Science (HDFS) is designed to prepare students in the creation, dissemination and application of knowledge focused on reducing risk and enhancing resilience within individuals and among families. HDFS offers graduate study leading to the Master of Science degree and Doctor of Philosophy degree. Graduate study in HDFS emphasizes the integration of theory, research and application to address key issues in risk and resilience. The MS options include Applied Human Services, Developmental and Family Sciences, Early Childhood Education, Marriage and Family Therapy and online MS programs through IDEA in Aging Studies, Family Financial Planning, Family and Community Services, and Family and Consumer Sciences Education. The PhD is in Human Development and Family Science. Students work with their advisors and advisory committees to develop flexible yet rigorous programs that meet degree requirements and professional competencies in the area of the specialization. Graduate programs in HDFS are central to departmental research. Faculty and students engage in the integration of theory and research to advance the development and application of knowledge to reduce risk and enhance resilience for individuals and families across cultures and generations.

HDFS has provided high quality graduate education programs for decades and has graduates in leadership positions across the state and nation in all areas of specialization. The department includes five centers/institutes that enhance student experiences in graduate study:

1. the Child Development Laboratory (CDL), licensed by the state of Oklahoma and the National Association for the Education of Young Children (NAEYC);
2. the Marriage and Family Therapy Clinic (MFT) offers high quality marriage and family therapy to the public and a training environment for master's degree students who choose the Marriage and Family Therapy (MFT) option;
3. the Center for Family Resilience (CFR) focuses on the promotion of resilience and reduction of risk among individuals, couples, and families across the lifespan in rural and urban areas of Oklahoma through multidisciplinary research, education and outreach; and
4. the Center for Developmental Disabilities learns from and works alongside individuals with intellectual and developmental disabilities and their families.

The Master of Science Degree

The MS degree in Human Development and Family Science is awarded in five options. Applicants specify the option in which they are seeking the MS degree as part of the application process: Aging Sciences, Applied Human Services, Developmental and Family Sciences, Early Childhood Education, and Marriage and Family Therapy (COAMFTE Accredited).

Admission to the MS program is selective and requires the completion of a bachelor's degree. Admission decisions are based on a variety of criteria, including grade-point average, TOEFL scores (required for students for whom English is a second language, 79 minimum), three letters of recommendation, statement of student goals, and a résumé or vita. Admission is available only for the fall semester in the Marriage and Family Therapy option.

Students in each option take department core courses designed to prepare them to integrate theory, research and application focused on reducing risk and enhancing resilience within individuals and among families across cultures and generations. Additional coursework (ranging from a minimum of 12 semester hours to a maximum of 44) in each option, approved by the advisor and student's advisory committee, is focused on integrating theory, research and application within the option. All options offer both a thesis and non-thesis option. The minimum number of semester hours required for each option is: Applied Human Services requires 33 semester hours; Developmental and Family Sciences requires 30 semester hours; Early Childhood Education requires 30 semester hours for thesis plan or 32 for non-thesis plan; and Marriage and Family Therapy requires a minimum of 60 semester hours.

The Applied Human Services option provides leadership in diverse human services careers. Graduates (a) demonstrate an ability to describe, discuss and integrate theory, research and application to address key issues related to individual and family risk and resilience; (b) establish a solid theoretical foundation in Human Development and Family Science, and (c) gain experiences and establish competence related to professional issues in human services. Students select a specialization area based on career goals and interests. This program can also be done as a 4+1 BS/MS degree program.

The Developmental and Family Sciences option is offered as an in-flight degree as part of the HDFS PhD. Coursework focuses on the integration of theory and research in human development and family science, research methods and statistics.

The Early Childhood Education option emphasizes child development as a foundation for the study and practice of professional education of children from birth through age eight. This program can be completed as a 4+1 BS/MS program for students seeking both the BS and MS specializing in Early Childhood Education prior to entering the profession. The integrated program is designed to be completed in five years, including two summers. The MS option is also open to graduates from other departments or universities. To help students gain a strong understanding of how theory and research inform classroom and professional practice, students take courses in history and theory, curriculum, issues and observation and assessment. Students also complete a field experience in early childhood education as part of the degree program. This degree program prepares graduates for careers including: early childhood teacher educator; staff training and development; administration and evaluation; child, family and educational advocate; early childhood consultant; early childhood classroom teacher (requires teacher certification prior to the MS program).

The Marriage and Family Therapy option is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) of the American Association for Marriage and Family Therapy. The Marriage and Family Therapy option provides students with basic knowledge, clinical skills and a professional identity essential for entry level practice of marriage and family therapy. Students specializing in marriage and family therapy operate the Center for Family Services, an on-campus family therapy clinic. The MFT curriculum takes at least two years (including summers) to complete. The academic course work includes courses in systems theory, marriage and family therapy techniques, ethics and professionalism, and research. Course work provides a framework for the application of marriage and family therapy theory and research in clinical practice. In addition, all students are required to take at least 12 hours of clinical practice. Graduation requirements include the completion of required coursework, a minimum of 400 client contact hours, and the completion of either a thesis or non-thesis plan.

More information on HDFS MS programs may be obtained from the HDFS department, on the web at https://education.okstate.edu/departments-programs/human-development-family-science/index.html (https://education.okstate.edu/departments-programs/human-development-family-science/) or by e-mail: humansciences.hdfs@okstate.edu.

Online Master of Science Degrees

The Department of Human Development and Family Science offers the following online Master of Science programs that are delivered collaboratively through the Great Plains Interactive Distance Education Alliance: Aging Studies, Family and Community Services, Family and Consumer Sciences Education, and Family Financial Planning.

The Master of Science in Aging Studies is designed and tailored for working professionals interested in beginning or advancing a career in the field of aging and human services. Coursework covers topics including adult development and aging; family systems; care providers; physical, mental and social changes; economics; nutrition and physical activity; and environments and public policy.

The Master of Science in Family and Community Services focuses on the development and implementation of public, private and voluntary support services for individuals, families and communities. This program prepares individuals to function in a variety of occupations promoting family life and family/community well-being.

The Master of Science in Family and Consumer Sciences Education provides focused, relevant studies for individuals planning to advance a career in Family and Consumer Sciences Education. Courses are designed for Cooperative Extension Service educators, public school teachers, and professionals in related areas who are not seeking teacher certification.

The Master of Science in Family Financial Planning prepares students for a career creating and delivering financial strategies. The curriculum includes topics such as estate planning, retirement planning, insurance planning, investing, personal income tax, and financial counseling. The program is a CFP® Board-Registered (https://www.cfp.net/) program that satisfies the educational requirement to sit for the CFP® Certification Exam.

For additional information on the online master's program please visit the website at gpidea.okstate.edu (http://gpidea.okstate.edu/).

The Doctor of Philosophy Degree

The HDFS Ph.D. is a research doctoral program designed to promote breadth, depth and integration of knowledge in HDFS. Doctoral students collaborate with faculty and other graduate students on research projects which integrate the theoretical and empirical knowledge bases of Developmental Science and Family Science, and investigate key processes associated with risk and resilience. Graduates develop into scholars able to conduct high quality basic and applied research, to provide relevant instruction, develop effective interventions, and contribute to the development of informed public policy that reduces risk and enhances resilience within individuals and among families across cultures and generations.

The HDFS Ph.D. program is a 72-hour doctoral program that can be done straight from a bachelor's degree or after completing a master's degree. The first 30 hours of the doctoral program confers an in-flight Master's Degree in Developmental and Family Science. Students can pick either a Developmental Science or Family Science Option for advanced study.

PhD graduates are prepared to apply knowledge in human development and family science in a collaborative manner in diverse settings. To accomplish this goal, the program is designed around four primary themes: breadth (knowledge of substantive content across the two disciplines of human development and family science), depth (knowledge of substantive content within one discipline, either human development or family science), integration (knowledge synthesized to capitalize on the strengths of the disciplines of human development and family science) and experience (knowledge through involvement in research, instruction and a variety of applications associated with reducing risk and enhancing resilience of individuals and families).

To achieve breadth, depth and experience in the primary emphasis area and in the integration between human development and family science, students take courses and participate in individualized experiences, approved by their major advisor and doctoral advisory committee, that guide the student in mastering the forms (teaching, research and service) and functions (discovery of knowledge, integration of knowledge, application of knowledge and transmission of knowledge) of scholarship expected of doctoral graduates in HDFS.

Admission to the PhD program is selective and requires the completion of a bachelor's degree. Admission decisions are based on a variety

of criteria, including grade-point average, TOEFL scores (required for students for whom English is a second language, minimum score of 79 on the internet-based TOEFL), three letters of recommendation, a statement of student goals and a résumé or vita.

More information on the PhD option in HDFS may be obtained from the HDFS department at https://education.okstate.edu/departments-programs/human-development-family-science/index.html (https://education.okstate.edu/departments-programs/human-development-family-science/) or by e-mail: humansciences.hdfs@okstate.edu.

Minors

- Aging Services (ASVC), Minor (p. 2030)
- Child Development (CHDV), Minor (p. 2031)
- Human Services (HSVC), Minor (p. 2043)

Faculty

Lynn M. Boorady, PhD—Professor and Interim Department Head
Professors: Alex Bishop, PhD; Matt Brosi, PhD; Ron Cox, PhD; Christine Johnson, PhD; Jennifer Jones, PhD; Robert Larzelere, PhD
Research Professor: Kami Gallus, PhD
Associate Professors: Michael Criss, PhD; Brandt Gardner, PhD; Nathan Hardy, PhD; Michael Stout, PhD; Whitney Shepard, PhD
Assistant Professors: Michael Fitzgerald, PhD; Preston Morgan, PhD
Research Assistant Professor: Hua Lin, PhD
Teaching Professors: Paula Tripp, PhD; Jennifer Stepp, PhD
Teaching Assistant Professor: Jillian Carpenter, PhD; Amanda McCabe, PhD; Tim Welch, PhD
Assistant Professor of Professional Practice and Director of Opportunity Orange Scholars: Emily Tucker, PhD
Teaching Instructor: Nikki Huckabay, MS; Chloe Morris, EdS
Instructor of Professional Practice and Director of Cleo L. Craig Child Development Laboratory: Sandy Major, MS
Director of Center for Family Resilience: Brooke Tuttle, PhD

Aging Services (ASVC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 21

Code	Title	Hours
Minor Requirements		
HDFS 2113	Lifespan Human Development (S)	3
HDFS 3813	Technology of Aging	3
HDFS 4413	Successful Aging (S)	3
HDFS 4543	Intergenerational Relationships (S)	3
HDFS 4813	Dying, Death and Bereavement	3
HDFS 4823	Aging Concepts and Controversies	3
HDFS 4833	The Fourth Age in Human Development	3
Total Hours		**21**

Other Requirements

- 18 hours upper-division with a 2.50 GPA.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Child Development (CHDV), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Department of Human Development and Family Science, 233 Nancy Randolph Davis, 405-744-5057

Minimum Overall Grade Point Average: 2.50
Total Hours: 17

Code	Title	Hours
Minor Requirements		
HDFS 1112	Introduction to Human Development and Family Science	2
HDFS 2113	Lifespan Human Development (S)	3
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
HDFS 3123	Parenting (S)	3
HDFS 3413	Infant and Child Development	3
HDFS 3443	Family Dynamics	3
Total Hours		**17**

Other Requirements

- 9 hours upper division with a 2.50 GPA.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Early Child Care and Development, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Courses designated (Q)		3
Must include one MATH course.		
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Sciences		
HDFS 2113	Lifespan Human Development (S)	3
Hours Subtotal		**5**
Major Requirements		
Minimum grade of "C" in each course		
Pre-Practicum Courses		
HDFS 3023	Child Development - Birth to 3	3
HDFS 3033	Child Development - 4 to 8	3
HDFS 3043	Professional Development for Early Childhood Educators	3
HDFS 3263	Curriculum Development for Children Ages Birth to 3	3
HDFS 3273	Curriculum Development for Children Ages 4-8	3
HDFS 3283	Assessing Young Children and their Environments to Enhance Development	3
HDFS 3293	Understanding and Adapting for Developmental Differences	3
HDFS 3053	Child Guidance and Classroom Environments	3
Practicum		
HDFS 4023	Practicum II in Early Childhood	3
HDFS 4036	ECCD Senior Capstone	6
Professional Development Courses		
HDFS 3303	Administration and Supervision in Early Childhood Settings	3
HDFS 3063	Health, Safety And Nutrition	3
HDFS 3313	Technology And Young Children	3
HDFS 3323	Diversity in the Lives of Young Children and Families	3
HDFS 3333	Working with Families	3
Hours Subtotal		**48**
Electives		
Electives can be met with any additional courses providing student meets required prerequisites.		27
Hours Subtotal		**27**
Total Hours		**120**

Other Requirements

- 45 hours must be upper-division.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours.
- Required for graduation:
  a. 2.50 overall GPA, and
  b. 2.50 GPA in Major Requirements and College/Departmental Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
3 Hours Course Designated (Q)		3
ENGL 1113	Composition I	3
3 Hour Elective (Suggested EPSY 1003)		3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**13**
Spring		
3 Hours Course Designated (H)		3
3 Hours Course Designated (S)		3
3 Hour Elective		3
Course designated (G)		3
ENGL 1213	Composition II	3
	Hours	**15**
Sophomore		
Fall		
3 Hours General Education (D)		3
4 Hours General Education N,L (Suggested: GEOL 1014)		4
3 Hour Elective		3
HDFS 2113	Lifespan Human Development (S)	3
POLS 1113	American Government	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**17**
Spring		
3 Hours Course Designated (H) (Suggested: REL 1103)		3
3 Hour Course Designated (N) (Suggested: NSCI 2013)		3
3 Hour Elective		3
Course designated (Q), (H), (N), (S), (D), (G), or (F)		3
3 Hour Elective		3
	Hours	**15**
Summer		
HDFS 3063	Health, Safety And Nutrition	3
	Hours	**3**
Junior		
Fall		
HDFS 3043	Professional Development for Early Childhood Educators	3
HDFS 3023	Child Development - Birth to 3	3
HDFS 3263	Curriculum Development for Children Ages Birth to 3	3
HDFS 3283	Assessing Young Children and their Environments to Enhance Development	3
HDFS 3293	Understanding and Adapting for Developmental Differences	3
	Hours	**15**
Spring		
HDFS 3033	Child Development - 4 to 8	3
HDFS 3053	Child Guidance and Classroom Environments	3
HDFS 3273	Curriculum Development for Children Ages 4-8	3
3 hours elective		3
	Hours	**12**
Summer		
HDFS 3333	Working with Families (Summer only)	3
3 hours elective		3
	Hours	**6**
Senior		
Fall		
3 Hour Elective		3
3 Hour Elective		3
HDFS 3313	Technology And Young Children	3
HDFS 4023	Practicum II in Early Childhood	3
	Hours	**12**
Spring		
HDFS 3323	Diversity in the Lives of Young Children and Families	3
HDFS 4036	ECCD Senior Capstone	6
HDFS 3303	Administration and Supervision in Early Childhood Settings	3
	Hours	**12**
	Total Hours	**120**

Human Development and Family Science: Child and Family Services, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
Three hours from:		3
NSCI 2013	Principles of Human Nutrition (N)	
NSCI 2114	Principles of Human Nutrition	
4 hours from courses designated (N) with one (L)		4
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Select one of the following:		3
STAT 2013	Elementary Statistics (Q) (Minimum grade of "C")	
STAT 2023	Elementary Statistics for Business and Economics (Q) (Minimum grade of "C")	
STAT 2053	Elementary Statistics for the Social Sciences (Q) (Minimum grade of "C")	
Hours Subtotal		**40**
College/Departmental Requirements		
Human Sciences		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Development and Family Science		
ENGL 3323	Technical Writing	3
HDFS 1112	Introduction to Human Development and Family Science (Minimum grade of "C")	2
HDFS 2113	Lifespan Human Development (S) [1]	3
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
HDFS 3123	Parenting (S) [1]	3
HDFS 4533	Critical Issues in Human Development and Family Science	3
Hours Subtotal		**19**
Major Requirements		
Family Life Education Core		
HDFS 2213	Human Sexuality and the Family (DS)	3
HDFS 2523	Professional Skills in Human Services (Minimum grade of "C")	3
HDFS 2433	Relationship Development and Marriage (S)	3
HDFS 3443	Family Dynamics	3
HDFS 4433	Family Life Education	3
HDFS 4473	Policy, Law and Advocacy	3
HDFS 4521	HDFS Child and Family Services: Pre-Internship (Minimum grade of "C")	1
HDFS 4563	Internship in Child and Family Services I	3
HDFS 4572	Internship in Child and Family Services II	2
HDFS 4713	Family Resource Management	3
Developmental Core		
HDFS 3413	Infant and Child Development	3
HDFS 3423	Adolescent Development in Family Contexts (S)	3
HDFS 4413	Successful Aging (S)	3
Risk & Resilience Science Core		
HDFS 3513	Research Methods in Human Development and Family Science	3
HDFS 4423	Family Risk and Resilience	3
Hours Subtotal		**42**
Professional Track Requirements		
Choose coursework to complete an individualized plan.		
View Individualized Plan (IP) details (p. 2035)		21
Hours Subtotal		**21**
Total Hours		**122**

1 Meets Certified Family Life Education national requirements.

Other Requirements

- 40 hours must be upper-division.
- A 2.50 Major GPA is required for graduation. This includes all courses in College/Departmental, Professional Track and Major Requirements.
- **Transfer Admission Requirements:** 2.00 GPA for less than 31 hours; 2.25 GPA for 31-45 hours; 2.50 GPA for more than 45 hours.

Professional Track Requirements

Individualized Plan (IP)

21 hours with a clearly articulated emphasis approved in writing by the HDFS department head or an OSU minor that supports the HDFS major and student's career goals, as approved by an advisor. Note: a course required elsewhere on this degree sheet cannot be counted towards two requirements. With approval from advisor and department head, a maximum of 30 hours from an accredited doctoral law or health program may be used for up to 21 hours of electives. Up to 9 hours may be substituted for HDFS 2433 Relationship Development and Marriage (S), HDFS 4433 Family Life Education, and HDFS 4473 Policy, Law and Advocacy.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HDFS 1112	Introduction to Human Development and Family Science (C or better)	2
UNIV 1111	First Year Seminar	1
HDFS 2113	Lifespan Human Development (S)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 hours of (H) - (H/G course suggested)		3
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
NSCI 2013	Principles of Human Nutrition (N)	3
HDFS 2213	Human Sexuality and the Family (DS)	3
	Hours	**15**
Sophomore		
Fall		
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) (C or better) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
SPCH 2713	Introduction to Speech Communication (S)	3
Natural Science with Lab (N, L)		4
HDFS 2433	Romance, Love, and Marriage (S)	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
HDFS 2523	Professional Skills in Human Services (C or better)	3
3 Hours General Education (H)		3
3 hours of controlled electives		3
3 Hours General Education (G)		3
	Hours	**15**
Junior		
Fall		
HDFS 3423	Adolescent and Youth Development (S)	3
HDFS 3443	Family Dynamics	3
HDFS 3123	Parenting (S)	3
ENGL 3323	Technical Writing	3
3 hours of controlled electives		3
HDFS 4521	HDFS Child and Family Services: Pre-Internship	1
	Hours	**16**
Spring		
HDFS 3413	Infant and Child Development	3
HDFS 3513	Research Methods in Human Development and Family Science	3
3 hours of controlled electives		3
3 hours of controlled electives		3
3 hours of controlled electives		3
	Hours	**15**
Summer		
HDFS 4563	Internship in Child and Family Services I	3
HDFS 4572	Internship in Child and Family Services II	2
	Hours	**5**
Senior		
Fall		
HDFS 4413	Successful Aging (S)	3
HDFS 4433	Family Life Education	3
HDFS 4473	Policy, Law and Advocacy	3
3 hours of controlled electives		3
3 hours General Education (D)		3
	Hours	**15**
Spring		
HDFS 4533	Critical Issues in Human Development and Family Science	3
HDFS 4423	Family Risk and Resilience	3
HDFS 4713	Family Resource Management	3

3 Hour Controlled Elective	3
Hours	**12**
Total Hours	**122**

Human Development and Family Science: Early Childhood Education, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
ENGL 2413	Exploring Literature (DH)	3
Select one of the following:		3
AMST 2103	Introduction to American Studies (DH)	
GEOG 3093	Historical Geography of North America to 1800 (H)	
HIST 1613	Western Civilization to 1500 (H)	
HIST 1623	Western Civilization after 1500 (H)	
HIST 1823	World History 1500 to Present (H)	
HIST 2023	History of the Present (H)	
HIST 2333	American Thought and Culture: Survey (H)	
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113	Introductory Biology (N)	4
& BIOL 1111	and Introductory Biology Laboratory (LN)	
or BIOL 1114	Introductory Biology (LN)	
Course designated (N)		4
Exploring Society & Human Behavior (S)		
HDFS 2113	Lifespan Human Development (S)	3
Diversity (D)		
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
Global Cultural Competency (G)		
GEOG 1113	Introduction to Cultural Geography (GS)	3
or GEOG 1713	Regions & Nations in Global Context (GS)	
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Hours Subtotal		**41**
College/Departmental Requirements		
Human Sciences		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Development and Family Science		
HDFS 1112	Introduction to Human Development and Family Science	2
Hours Subtotal		**4**
Major Requirements		
Early Childhood Education		
HDFS 2211	Early Childhood Field Experience I	1
HDFS 2223	Foundations in Early Childhood Education	3
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	3
HDFS 2243	Infant-Toddler Programming	3
HDFS 3024	Literacy Assessment and Instruction in Early Childhood Education	4
HDFS 3103	Social Development and Social Studies in Early Childhood	3
HDFS 3202	Early Childhood Field Experience II	2
HDFS 3213	Literacy Development in Early Childhood Education	3
HDFS 3223	Mathematics and Science in Early Childhood	3
HDFS 3233	Guidance and Classroom Management in Programs for Young Children	3
HDFS 4313	Early Childhood Field Experience III	3
HDFS 4323	Family, School, and Community	3
HDFS 4333	Early Childhood Capstone	3
HDFS 4339	Student Teaching in Early Childhood Education	9
HDFS 4363	Integrated Curriculum in Early Childhood Education	3
Subject Area Requirements		
Additional Subject Area Requirements in General Education Requirements Section		
Analytical & Quantitative Thought:		
MATH 3403	Geometric Structures for Early Childhood and Elementary Teachers	3

MATH 3603	Mathematical Structures for Early Childhood and Elementary Teachers	3
English Composition & Oral Communication:		
ENGL 3323	Technical Writing	3
or ENGL 2513	Introduction to Creative Writing (H)	
Social & Cultural Dimension:		
CIED 4133	Introduction to K-12 English Language Learners	3
Natural Sciences:		
Select one of the following courses:		4
GEOL 1014	Geology and Human Affairs (LN)	
GEOL 1224	Evolution of the Earth (LN)	
PBIO 1404	Plant Biology (LN)	
NREM 1014	Introduction to Natural History (LN)	
Professional Core		
HDFS 3413	Infant and Child Development	3
HDFS 3513	Research Methods in Human Development and Family Science	3
EDTC 3123	Applications of Educational Technologies	3
SPED 3202	Educating Exceptional Learners	2
Hours Subtotal		**76**
Electives		
Electives can be met with any additional courses providing student meets required prerequisites. (Minimum grade of "C")		3
Hours Subtotal		**3**
Total Hours		**124**

Other Requirements

- 45 hours must be upper-division.
- For licensure/standard certification, the student must demonstrate conversational skills in a foreign language at a novice high level, as defined by the American Council on the Teaching of Foreign Languages. For licensure/standard certification, the student must successfully complete the OGET, OSAT, and OPTE exams and a minimum of three portfolio submissions.
- Required for graduation:
  a. 2.50 overall GPA and
  b. 2.50 GPA in General Education Requirements, Major Requirements, College/Departmental Requirements, Professional Core and Electives and
  c. 2.50 GPA in General Education Requirements, Major Requirements, Professional Core, Electives and College/Departmental Requirements with no grades below “C” or “P”.
- Required for recommendation for Licensure/Standard Certification:
  a. 2.50 overall (Graduation/Retention) GPA.
- Transfer Admission Requirements: 2.00 for less than 31 hours; 2.25 for 31-45 hours; 2.50 for more than 45 hours.
- The following courses must be completed at Oklahoma State University:

Code	Title	Hours
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
HDFS 2211	Early Childhood Field Experience I	1
HDFS 2223	Foundations in Early Childhood Education	3
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	3
HDFS 2243	Infant-Toddler Programming	3
HDFS 3024	Literacy Assessment and Instruction in Early Childhood Education	4
HDFS 3103	Social Development and Social Studies in Early Childhood	3
HDFS 3202	Early Childhood Field Experience II	2
HDFS 3213	Literacy Development in Early Childhood Education	3
HDFS 3223	Mathematics and Science in Early Childhood	3
HDFS 3233	Guidance and Classroom Management in Programs for Young Children	3
HDFS 4313	Early Childhood Field Experience III	3
HDFS 4323	Family, School, and Community	3
HDFS 4333	Early Childhood Capstone	3
HDFS 4339	Student Teaching in Early Childhood Education	9
HDFS 4363	Integrated Curriculum in Early Childhood Education	3

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HDFS 1112	Introduction to Human Development and Family Science	2
UNIV 1111	First Year Seminar	1
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
Natural Science (N) course		4
	Hours	**13**

Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
HDFS 2113	Lifespan Human Development (S)	3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
Select one of the following:		4
POLS 1113	American Government	3
GEOL 1014	Geology and Human Affairs (LN)	
GEOL 1224	Evolution of the Earth (LN)	
PBIO 1404	Plant Biology (LN)	
NREM 1014	Introduction to Natural History (LN)	
	Hours	**16**
Summer		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 Hour Elective		3
	Hours	**6**
Sophomore		
Fall		
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	3
3 hours of Humanities (H) Select one of the following: AMST 2103 (H), GEOG 3093 (H), HIST 1613 (H), HIST 1623 (H), HIST 1823 (H), HIST 2023 (H), or HIST 2333 (H)		3
MATH 3403	Geometric Structures for Early Childhood and Elementary Teachers	3
ENGL 2413	Exploring Literature (DH)	3
EDTC 3123	Applications of Educational Technologies	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
HDFS 2223	Foundations in Early Childhood Education	3
HDFS 3413	Infant and Child Development	3
Select one of the following:		4
BIOL 1114	Introductory Biology (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
MATH 3603	Mathematical Structures for Early Childhood and Elementary Teachers	3
HDFS 3513	Research Methods in Human Development and Family Science	3
	Hours	**16**
Junior		
Fall		
HDFS 2211	Early Childhood Field Experience I	1
HDFS 2243	Infant-Toddler Programming	3
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	3
SPED 3202	Educating Exceptional Learners	2
ENGL 3323 or ENGL 2513	Technical Writing or Introduction to Creative Writing (H)	3
CIED 4133	Introduction to K-12 English Language Learners (ECE enrolls in CIED 4103)	3
	Hours	**15**
Spring		
HDFS 3202	Early Childhood Field Experience II	2
HDFS 3213	Literacy Development in Early Childhood Education	3
HDFS 3223	Mathematics and Science in Early Childhood	3
HDFS 3103	Social Development and Social Studies in Early Childhood	3
HDFS 3233	Guidance and Classroom Management in Programs for Young Children	3
	Hours	**14**
Senior		
Fall		
GEOG 1113 or GEOG 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS)	3
HDFS 3024	Literacy Assessment and Instruction in Early Childhood Education	4
HDFS 4323	Family, School, and Community	3
HDFS 4363	Integrated Curriculum in Early Childhood Education	3
HDFS 4313	Early Childhood Field Experience III	3
	Hours	**16**
Spring		
HDFS 4333	Early Childhood Capstone	3
HDFS 4339	Student Teaching in Early Childhood Education	9
	Hours	**12**
	Total Hours	**124**

Human Development and Family Science: Family & Consumer Sciences Education, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1014	Chemistry In Civilization (LN)	4
Or higher level CHEM		
3 hours from courses designated (N) or (N, L)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Hours Subtotal		**40**
College/Departmental Requirements		
Human Sciences		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Development and Family Science		
CIED 4133	Introduction to K-12 English Language Learners	3
HDFS 1112	Introduction to Human Development and Family Science	2
HDFS 2113	Lifespan Human Development (S)	3
HDFS 2213	Human Sexuality and the Family (DS)	3
HDFS 3123	Parenting (S)	3
Hours Subtotal		**16**
Major Requirements		
Program Specialization Courses		
Minimum grade of "C" in each course		
2.75 minimum GPA in Program Specialization Courses is required for field experience placement		
DM 1003	Design Theory and Processes for Design and Merchandising	3
DM 1103	Basic Apparel Assembly	3
DM 2573	Textile Science (LN)	3
DM 2913	Sewn Product Quality Analysis	3
or DM 2204	Intermediate Apparel Assembly	
FIN 2123	Personal Finance	3
HDFS 2433	Relationship Development and Marriage (S)	3
HDFS 3413	Infant and Child Development	3
HDFS 3423	Adolescent Development in Family Contexts (S)	3
HDFS 4413	Successful Aging (S)	3
HDFS 4713	Family Resource Management	3
HTM 1103	Introduction to Hospitality and Tourism	3
HTM 1113	Fundamentals of Culinary Production	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3543	Food and the Human Environment (GS)	3
Hours Subtotal		**46**
Professional Education Requirements		
Minimum grade of "C" or "P" in each course		
2.50 minimum GPA in Professional Education Requirements is required for field experience placement		
EDTC 3123	Applications of Educational Technologies	3
HDFS 3603	Family and Consumer Sciences Classroom Management and Educational Foundations	3
HDFS 3623	Field Experiences in Family and Consumer Sciences Education	3
HDFS 4913	Instructional Methods in Family and Consumer Sciences	3

SPED 3202	Educating Exceptional Learners	2
Professional Internship or Student Teaching Experience:		6
Select a professional area (p. 2041)		
Hours Subtotal		**20**
Total Hours		**122**

Professional Areas

FCS Cooperative Extension Service

Code	Title	Hours
HDFS 4521	HDFS Child and Family Services: Pre-Internship	1
HDFS 4563	Internship in Child and Family Services I	3
HDFS 4572	Internship in Child and Family Services II	2

FACS School Instruction

Code	Title	Hours
HDFS 4520	Student Teaching in Family and Consumer Sciences Education	6

Other Requirements

- 40 hours must be upper-division.
- Required for graduation:
  a. 2.50 overall GPA (cumulative) and
  b. 2.75 GPA in combination of Program Specialization Requirements, Professional Education Requirements, and College/Departmental Requirements.
  c. No grades lower than "C" in all College/Departmental Requirements, Major Requirements and Professional Education Requirements; and
  d. Grade of "P" in all pass/fail courses.
- Required for recommendation for Licensure/Standard Certification:
  a. 2.50 overall GPA (cumulative);
  b. 2.75 GPA in Program Specialization Courses and Professional Education Requirements;
- For licensure/standard certification, the student must demonstrate conversational skills in a foreign language at a novice high level, as defined by the American Council on the Teaching of Foreign Languages.
- For licensure/standard certification, the student must successfully complete the OGET, OSAT, and OPTE exams and a minimum of three portfolio submissions.
- Transfer Admission Requirements: 2.00 GPA for less than 31 hours; 2.25 GPA for 31-45 hours; 2.50 GPA for more than 45 hours.
- HDFS 1112 Introduction to Human Development and Family Science and HDFS 4521 HDFS Child and Family Services: Pre-Internship must be completed prior to enrolling in internship courses for the FCS Cooperative Extension Service Professional Area.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Secondary School Instruction Professional Area

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HDFS 1112	Introduction to Human Development and Family Science	2
UNIV 1111	First Year Seminar	1
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
HDFS 2113	Lifespan Human Development (S)	3
Course designated (H)		3
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
NSCI 2013	Principles of Human Nutrition (N)	3
DM 1003	Design Theory and Processes for Design and Merchandising	3
	Hours	**15**
Sophomore		
Fall		
HDFS 2433	Romance, Love, and Marriage (S)	3
HTM 1113	Fundamentals of Culinary Production	3
CHEM 1014	Chemistry In Civilization (LN) (or higher level CHEM)	4
DM 1103	Basic Apparel Assembly	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
Course designated "S"		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**18**
Spring		
HDFS 2213	Human Sexuality and the Family (DS)	3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
DM 2573	Textile Science (LN)	3
HTM 1103	Introduction to Hospitality and Tourism	3
Course designated (H)		3

Course Designated "D"		3
	Hours	**18**
Junior		
Fall		
FIN 2123	Personal Finance	3
NSCI 3223	Nutrition Across the Life Span	3
DM 2913 or DM 2204	Sewn Product Quality Analysis or Intermediate Apparel Assembly	3
HDFS 3603	Family and Consumer Sciences Classroom Management and Educational Foundations	3
HDFS 3423	Adolescent and Youth Development (S)	3
SPED 3202	Educating Exceptional Learners	2
	Hours	**17**
Spring		
HDFS 3123	Parenting (S)	3
HDFS 3413	Infant and Child Development	3
HDFS 4713	Family Resource Management	3
EDTC 3123	Applications of Educational Technologies	3
HDFS 3623	Field Experiences in Family and Consumer Sciences Education	3
Course Designated (G)		3
	Hours	**18**
Senior		
Fall		
HDFS 4913	Instructional Methods in Family and Consumer Sciences	3
HDFS 4413	Successful Aging (S)	3
NSCI 3543	Food and the Human Environment (GS)	3
Course Designated "N or N, L"		3
CIED 4133	Introduction to K-12 English Language Learners	3
	Hours	**15**
Spring		
HDFS 4520	Student Teaching in Family and Consumer Sciences Education	6
	Hours	**6**
	Total Hours	**122**

Cooperative Extension Service Professional Area

Course	**Title**	**Hours**
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HDFS 1112	Introduction to Human Development and Family Science (C or better)	2
UNIV 1111	First Year Seminar (UNIV 1111 + EDHS 1111 = EDHS 1112)	1
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
HDFS 2113	Lifespan Human Development (S)	3
Course designated (H)		3
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MATH 1483 or MATH 1513	Mathematical Functions and Their Uses (Q) or College Algebra (Q)	3
NSCI 2013	Principles of Human Nutrition (N)	3
DM 1003	Design Theory and Processes for Design and Merchandising	3
	Hours	**15**
Sophomore		
Fall		
HDFS 2433	Romance, Love, and Marriage (S)	3
HTM 1113	Fundamentals of Culinary Production	3
CHEM 1014	Chemistry In Civilization (LN) (Or Higher CHEM)	4
DM 1103	Basic Apparel Assembly	3
Course designated "S"		3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
EDHS 3111	Preparing for Your Future Career	1
	Hours	**18**
Spring		
HDFS 2213	Human Sexuality and the Family (DS)	3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
DM 2573	Textile Science (LN)	3
Course designated (H)		3
Course Designated (D)		3
HTM 1103	Introduction to Hospitality and Tourism	3
	Hours	**18**
Junior		
Fall		
FIN 2123	Personal Finance	3
NSCI 3223	Nutrition Across the Life Span	3
DM 2913 or DM 2204	Sewn Product Quality Analysis or Intermediate Apparel Assembly	3
HDFS 3603	Family and Consumer Sciences Classroom Management and Educational Foundations	3
HDFS 3423	Adolescent and Youth Development (S)	3
SPED 3202	Educating Exceptional Learners	2
HDFS 4521	HDFS Child and Family Services: Pre-Internship (C or Better)	1
	Hours	**18**
Spring		
HDFS 3123	Parenting (S)	3
HDFS 3413	Infant and Child Development	3
HDFS 4713	Family Resource Management	3
EDTC 3123	Applications of Educational Technologies	3
HDFS 3623	Field Experiences in Family and Consumer Sciences Education	3
Course Designated (G)		3
	Hours	**18**
Senior		
Fall		
HDFS 4913	Instructional Methods in Family and Consumer Sciences	3
HDFS 4413	Successful Aging (S)	3
NSCI 3543	Food and the Human Environment (GS)	3
Course Designated "N or N, L"		3
CIED 4133	Introduction to K-12 English Language Learners	3
	Hours	**15**
Spring		
HDFS 4563	Internship in Child and Family Services I	3
HDFS 4572	Internship in Child and Family Services II	2
	Hours	**5**
	Total Hours	**122**

Human Services (HSVC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Department of Human Development and Family Science, 233 Nancy Randolph Davis, 405-744-5057

Minimum Overall Grade Point Average: 2.50
Total Hours: 17

Code	Title	Hours
Minor Requirements		
HDFS 1112	Introduction to Human Development and Family Science	2
HDFS 2113	Lifespan Human Development (S)	3
HDFS 2433	Relationship Development and Marriage (S)	3
HDFS 2453	Management of Human Service Programs	3
HDFS 2523	Professional Skills in Human Services	3
HDFS 3443	Family Dynamics	3
Total Hours		**17**

Other Requirements

- 3 hours upper-division with 2.50 GPA.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Nutritional Sciences

The Department of Nutritional Sciences advances health and quality of life of individuals and communities and prepares professionals through discovery, education and application of scientific knowledge.

Graduates are prepared to apply nutrition knowledge in dietetic internships, healthcare professional schools, graduate programs and food and nutrition-related professions. Four degree options and a minor are offered through the department.

The human nutrition/premedical sciences option is ideal for students desiring greater depth in the physiological and biochemical sciences in preparation for medical and other professional schools, graduate study and research in human nutrition. It includes the prerequisites for admission to most medical, dental, optometry and pharmacy schools. The allied health option provides required coursework for most nursing schools, physician assistant programs, schools of physical and occupational therapy, dental hygiene and other health professions. The public health nutrition option offers coursework for positions in nutrition education, wellness, school food service management and other areas in the health field. The dietetics option provides the coursework required to become a Registered Dietitian (see OSU Didactic Program in Dietetics below).

The mission of the OSU Didactic Program in Dietetics is to promote human health and quality of life by preparing students for supervised practice leading to eligibility for the Commission on Dietetic Registration (CDR) credentialing exam to become a RDN. The dietetics profession is diverse and dynamic, integrating human nutrition, food service administration, food science, chemistry, physiology, management and interpersonal skills. The dietetics option is the only option that includes the Didactic Program in Dietetics (DPD) coursework required to apply for competitive dietetic internships (DI). When students successfully complete the academic requirements (DPD) and supervised practice component (DI), they are eligible for the national Registration Examination for Dietitians administered by the CDR of the Academy of Nutrition and Dietetics (the Academy). Individuals who successfully complete the examination become Registered Dietitians/Nutritionists and are entitled to use the initials “RD” or “RDN” to signify professional competence. Many states, including Oklahoma, also require a license to practice dietetics in the state. Each state law varies in its scope. Didactic Program in Dietetics information and the DPD Student Handbook are found at https://education.okstate.edu/departments-programs/nutritional-sciences/didactic-program-dietetics/index.html (https://education.okstate.edu/departments-programs/nutritional-sciences/didactic-program-dietetics/).

The Didactic Program in Dietetics is currently granted continuing accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, Illinois 60606-6995, 312.899.0040 ext. 5400.

Nutrition professionals work in a wide range of settings, in both the public and private sectors and assume an array of challenging responsibilities. Career opportunities for a registered/licensed dietitian include: health care dietitian and administrator, fitness/wellness consultant, public health nutritionist, school nutrition director, Cooperative Extension educator, entrepreneur in dietetic programs and services, and corporate dietitian/nutritionist. DPD Graduates who do not enter dietetic internships may work in related fields which do not require the RD credential such as nutrition researcher, school food service, Cooperative Extension, pharmaceutical or food sales, food service management and government programs; take the certified dietary manager (CDM) exam; or enter related graduate programs such as Master of Science in Public Health. Upon earning the DPD “verification statement,” students may take the CDR exam to become dietetic technicians, registered (DTR). University teaching and research in the field of nutrition and some specialized careers require advanced degrees or additional course work.

Admission Requirements

Transfer students must have earned a 2.5 retention GPA in order to be admitted to the NSCI undergraduate program.

Further information may be found at https://education.okstate.edu/departments-programs/nutritional-sciences/index.html (https://education.okstate.edu/departments-programs/nutritional-sciences/).

Dietetic Internship

The dietetic internship (DI) at Oklahoma State University requires a bachelor’s degree and prior completion of the DPD requirements for admission and meets the Academy’s 1000-hour supervised practice requirement for registration eligibility. Its mission is to advance health and quality of life of individuals and communities by preparing dietetic professionals for competent practice through education, discovery and application of scientific knowledge. The internship provides experience in clinical, management, and community practice settings where interns develop entry-level practice competence. Entry into the dietetic internship is competitive, requiring an application to the OSU DI and NSCI Master’s of Sciences degree and participation in the Academy of Nutrition and Dietetics computer matching or pre-selection process. All students admitted to the Dietetic Internship must earn the departmental Master of Science in Nutritional Sciences (Dietetics Research option or Dietetics Practice option) or enter with at least an MS which is essentially equivalent to the NSCI MS (Dietetics Research option or Dietetics Practice option).

The Dietetic Internship at OSU is currently granted continuing accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, Illinois 60606-6995, 312.899.0040 ext. 5400.

Dietetic Internship information is found at https://education.okstate.edu/departments-programs/nutritional-sciences/dietetic-internship-program/index.html (https://education.okstate.edu/departments-programs/nutritional-sciences/dietetic-internship-program/).

Courses

NSCI 2011 Applied Principles of Human Nutrition
Prerequisites: Past completion of or concurrent enrollment in NSCI 2013 and must be majoring or minoring in NSCI.
Description: Application of human nutrition concepts in the form of diet, metabolism, and behavioral measurement.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Nutritional Sciences

NSCI 2013 Principles of Human Nutrition (N)
Description: Functions of the nutrients in human life processes. Nutrient relationship to health as a basis for food choices. Open to all University students. Previously offered as NSCI 2123, NSCI 2114 and FNIA 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
General Education and other Course Attributes: Natural Science Reasoning

NSCI 2111 Professional Careers in Nutritional Sciences
Prerequisites: For students interested in Allied Health, Community Nutrition or Nutrition and Exercise or consent of instructor.
Description: Career opportunities in health professions. Roles and responsibilities of health care professionals. Routes to professional memberships and current issues in professionalism. Previously offered as FNIA 2111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2112 Foods of the African Diaspora: Chronology, Evolution and Impact
Description: An exploration of the evolution of African American foodways and their physical health impacts within the historical contexts of slavery, emancipation, cultural development, religion, and traditional health beliefs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2211 Professional Careers in Dietetics
Description: Career opportunities in food, nutrition and dietetics. Roles and responsibilities of nutrition and dietetics professionals. Routes to professional memberships and current issues in professionalism.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2311 Introduction to Public Health Nutrition
Description: Overview of Public Health Nutrition with an emphasis on how biological, social, economic, and political factors affect nutrition and health status of populations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 2412 Introduction to Nutrition & Food Literacy
Prerequisites: NSCI 2013 or consent of instructor.
Description: Application of nutrition education principles and public health approaches for planning, purchasing, preparing and preserving healthy affordable foods to improve health outcomes.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 3 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 2850 Special Topics in Nutritional Sciences
Description: Study of specific consumer education issues or topics in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 3011 Nutrition and Evidence-based Practice I
Prerequisites: NSCI 2013 and STAT 2013 or STAT 2023.
Description: Understanding basic research designs and methodologies, ethics in research, and the use of research in the development of evidence-based recommendations for healthy individuals, applying statistics, and interpreting data in nutrition research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3021 Nutrition and Evidence-based Practice II
Prerequisites: NSCI 3011 and BIOL 3204. "C" or better in NSCI 3011
Description: Understanding research focused on pathophysiology of chronic disease and the role of nutrition in the prevention and treatment of these diseases. Course builds on an understanding of physiology and of nutrition research from BIOL 3204 and NSCI 3011. Ethics in research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3133 Science of Food Preparation
Prerequisites: HTM 1113 or NSCI 3993 and NSCI 2013, and CHEM 3013. "C" or better in NSCI 3993.
Description: Scientific principles underlying functions of food ingredients, recipe/menu modification, diet management for disease states and food safety.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 3223 Nutrition Across the Life Span
Prerequisites: NSCI 2013 or equivalent.
Description: Nutritional needs and dietary concerns of individuals from conception through old age. Previously offered as NSCI 4223 and FNIA 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3312 Nutrition Care Process and Assessment
Prerequisites: NSCI 3223 with minimum grade of "C", BIOL 3204 or concurrent, and Option in DIET or consent of instructor.
Description: Familiarity and application of the Nutrition Care Process - a systematic approach to providing quality nutrition care. The student will also be introduced to and be able to apply medical terminology and nutrition assessment practices in the Nutrition Care process.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3440 Nutritional Sciences Pre-Professional Experience
Prerequisites: Major in Nutritional Sciences.
Description: Student-arranged, instructor-approved, job shadowing, work or volunteer experience in professional settings related to the Nutritional Sciences option. Forty hours of experience required per credit hour. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 3543 Food and the Human Environment (GS)
Description: Impact of the various factors that affect food availability, production, processing, distribution and consumption of food in the world. International cultures and foods. Challenges of and solutions to the world food crisis. Previously offered as FNIA 3543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
General Education and other Course Attributes: International Dimension, Society & Human Behavior

NSCI 3733 Environmental Nutrition
Prerequisites: NSCI 2013.
Description: Evidence-based examination of agricultural production, food systems, and sustainability on food, nutritional quality, and societal health, from harvest to health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 3813 Nutrition Counseling
Prerequisites: NSCI 2114 and NSCI 3223 and NSCI 3312 and HDFS 2113 and PSYC 1113 or consent of instructor. "C" or better in NSCI 2114, NSCI 3223 and NSCI 3312.
Description: Theory and practice of counseling and interviewing skills as applied to nutrition counseling. Previously offered as NSCI 3812.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 3993 Culinary Principles in Nutrition
Prerequisites: Limit to all options in Nutritional Sciences.
Description: Familiarity and application of techniques and theories of food preparation including use and selection of equipment, sanitation and quality controls.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 4021 Nutrition and Evidence-based Practice III
Prerequisites: NSCI 3021. "C" or better in NSCI 3021
Description: In-depth study of major controversial issues in the field of nutrition. Course builds on understanding of nutrition research from NSCI 3011 and 3021. Review and analysis of current research. Ethics in research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4023 Nutrition in the Pathophysiology of Chronic Disease
Prerequisites: NSCI 2013, NSCI 3011, NSCI 3223 and BIOL 3204. "C" or better in NSCI 3011 and NSCI 3223.
Description: Analysis of the role of dietary bioactive components in health maintenance and chronic disease prevention. Communication of evidence-based nutrition information to the public.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4040 International Studies in Food and Culture
Description: Development of analytical and interpersonal skills for understanding food systems, dietary patterns, and nutritional practices across global communities. Students examine how historical influences and contemporary dynamics shape food cultures, nutritional beliefs, and eating practices internationally. Course explores regional food traditions, and nutrition-related challenges and innovations worldwide. Students will identify opportunities for collaboration in addressing global food security, nutrition education, and sustainable food nutrition practices. LEC 1-6, Max 6
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4111 Professional Preparation for Careers in Dietetics
Prerequisites: NSCI 4854 or concurrent, or consent of instructor. "C" or better in NSCI 2211, NSCI 3011, NSCI 3543, NSCI 3813 and NSCI 3993.
Description: Preparation of supervised practice applications and supporting documents. Options for professional credentials, graduate school, and careers. Professional issues in dietetics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4123 Human Nutrition and Metabolism I
Prerequisites: NSCI 2013 and CHEM 3013 or CHEM 3053; BIOL 3204 or consent of instructor.
Description: Examine the chemical characteristics and functions of macronutrients; digestion, absorption, transport and metabolism of macronutrients; control of intermediary metabolism and metabolic pathways. No credit for students with degree credit in NSCI 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4133 Nutrition for Exercise and Sport
Prerequisites: NSCI 2013.
Description: Application of principles of nutrient metabolism as they relate to physical activity, sport and health. Strongly recommend a background including NSCI 4123 and BIOC 3653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4143 Human Nutrition and Metabolism II
Prerequisites: NSCI 4123, minimum grade of “C” or consent of instructor.
Description: Chemical characteristics, absorption, transport, functions, requirements and health implications of vitamins and minerals. Discussion of phytochemicals and supplements in relation to health maintenance and disease prevention. No credit for students with degree credit in NSCI 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4313 Dietary and Herbal Supplements
Prerequisites: NSCI 2114 and NSCI 3021 and BIOL 3204 or instructor approval.
Description: Explore the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4331 Quantity Food Production Practicum
Prerequisites: NSCI 2013, NSCI 3993 and NSCI 4573 with a grade of "C" or better. Restricted to DIET option.
Description: Observation and practice in real-life-quantity food production settings. Students will need immunizations, TB tests, and background checks completed before the semester of enrollment in the course.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Nutritional Sciences

NSCI 4373 Principles of Nutrition Education and Behavior Change
Prerequisites: NSCI 2114 and NSCI 3021 and NSCI 3223 or consent of instructor. "C" or better in NSCI 3021 and NSCI 3223.
Description: Analysis of various methods, strategies, theories, resources and evaluation methods for nutrition education. Principles of behavior change and effective nutrition counseling. Overview of public health nutrition programs. Previously offered as FNIA 4373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4573 Management in Dietetics
Prerequisites: ACCT 2103 or ACCT 2003; and NSCI 3993 or HTM 1113 or HTM 1114.
Description: Management practices in the field of dietetics including program, clinical and food systems management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences
Additional Fees: Nutritional Sci Consummable fee of $20 applies.

NSCI 4632 Community Nutrition I
Prerequisites: NSCI 3223 or consent of instructor. "C" or better in NSCI 2211, NSCI 3011, NSCI 3543, NSCI 3813.
Description: Application of nutrition epidemiological, environmental and program assessment practices in community nutrition settings. Field work required.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4633 Community Nutrition II
Prerequisites: NSCI 2114 and NSCI 3223 and NSCI 4632 or consent of instructor. "C" or better in NSCI 4632
Description: Application of nutrition, education, communication and evaluation principles to planning and implementing community nutrition programs and services. Field work required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4643 Capstone for Nutritional Sciences
Prerequisites: Senior standing in NSCI or consent of instructor.
Description: Integration of the body of knowledge in nutritional sciences. Examination of the research basis for defining and solving critical issues. Oral and written reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4850 Special Unit Studies in Nutritional Sciences
Description: Special units of study in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 4854 Medical Nutrition Therapy I
Prerequisites: NSCI 3223 and NSCI 3813 and NSCI 4123 or concurrent enrollment. "C" or better in NSCI 3813 and NSCI 4123
Description: Physiological and metabolic bases for dietary modifications in disease states. Previously offered as NSCI 4853.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4864 Medical Nutrition Therapy II
Prerequisites: NSCI 4854. "C" or better in NSCI 4854.
Description: A continuation of NSCI 4854, Medical Nutrition Therapy I. Previously offered as NSCI 4863 and NSCI 4852.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 4900 Honors Creative Component
Prerequisites: College of Human Sciences Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in College of Human Sciences. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral exam. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Nutritional Sciences
General Education and other Course Attributes: Honors Credit

NSCI 4913 Nutritional Epidemiology
Prerequisites: Junior standing, STAT 2013 and HLTH 3723 and NSCI 2013 with a minimum grade of "C", or consent of instructor.
Description: Assessing the impact of nutrition and physical activity on health outcomes from an epidemiological perspective. Attention will be given to understanding the spectrum of study designs, including their benefits and drawbacks, used to examine this relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5000 Master's Thesis
Prerequisites: Consent of adviser.
Description: Individual research and thesis that will fulfill the requirements for the master's degree. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5003 Diabetes Medical Nutrition Therapy
Prerequisites: Admission to MS in Dietetics.
Description: An in-depth study of diabetes management with emphasis in nutrition care. Topics will include diabetes pathophysiology, clinical care guidelines, basic pharmacology, clinical nutrition education and counseling strategies, and nutrition care planning. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5011 Special Topics in Nutritional Sciences
Prerequisites: NSCI graduate standing.
Description: Orientation to graduate study and research in nutritional sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5012 Public Policy Development in Food, Nutrition and Related Programs
Description: Rationale underlying governmental programs in food and nutrition and human sciences and assessment of the effectiveness of the programs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5013 Financial Management and Cost Controls in Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: An overview of accounting, cost controls, and financial management in food service. Special emphasis placed on understanding the topics and applying them to the theoretical and/or practical research for food service systems. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease
Prerequisites: NSCI 2114, NSCI 3011, NSCI 3223 and BIOL 3204.
Description: In-depth study of the pathophysiology of chronic diseases and the role of dietary bioactive components in health maintenance and disease prevention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5033 Macronutrients in Human Nutrition
Prerequisites: Biochemistry and advanced human nutrition/metabolism, or consent of instructor.
Description: Characteristics, biological roles, digestion, absorption, transport and metabolism of the macronutrients. Previously offered as NSCI 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5043 Micronutrients in Human Nutrition
Prerequisites: NSCI 5033 or consent of instructor.
Description: In-depth study of vitamins and minerals and their interrelationships in metabolism. Previously offered as NSCI 6123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5053 Functional Foods for Chronic Disease Prevention
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of instructor.
Description: Integrate and evaluate the regulatory principles, food science, nutrient science and nutritional metabolism for the development of functional foods, nutraceuticals, and dietary supplements for chronic disease prevention. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5063 Food Culture
Prerequisites: Admission to MS in Dietetics.
Description: Survey of topics that affect how we perceive food in the modern world. Students examine food as a badge of cultural identity, a focus of media scrutiny and promotion, a symbol of religion, and a driver of technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5073 Nutrition Therapy for Eating Disorders
Prerequisites: Admission to Great Plans IDEA MS in Dietetics. Medical Nutrition Therapy or consent of instructor.
Description: Study of eating disorders management and nutrition care. Topics will include eating disorders medical complications, clinical care guidelines, basic pharmacology, clinical nutrition education, nutrition care planning, psychology of eating disorders, team collaboration, and therapeutic modalities for nutrition counseling. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5103 Grant Writing for the Professional
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Grant proposal preparation experience including written critique of proposals and budget planning. Designed for the working professional. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5123 Research Approaches and Translation in Nutritional Sciences
Description: Basic components of the research process in nutritional sciences, critical interpretation, and translation to practice applications for nutrition professionals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5133 Advanced Nutrition for Exercise and Sport
Prerequisites: Intro nutrition and biochemistry or consent of instructor.
Description: Advanced study of nutrition and metabolism relating to physical activity, sports and health.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5203 Nutrition in Wellness
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Wellness promotion through nutrition. Nutritional risk and protective factors will be examined as they relate to public health and individual nutrition. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5210 Contemporary Issues in Food Service
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics program or consent of instructor.
Description: Contemporary issues in food service in dietetics; formulation of innovative solutions and processes to enhance effectiveness in the work place. Previously offered as NSCI 5211. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5213 Entrepreneurship in Food Service and Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics.
Description: An overview of entrepreneurship, characteristics of entrepreneurs and small business development within the context of food service and dietetics. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5223 Advanced Nutrition Across the Life Span
Prerequisites: Admission to the Great Plains IDEA online MS in Dietetics.
Description: Examination of the influence of normal physiological stresses on nutritional needs throughout the life span. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5240 Contemporary Issues in Nutrition
Prerequisites: Enrolled in Great Plains IDEA online MS in Dietetics.
Description: Contemporary issues in nutrition. Web-based instruction. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5303 Human Nutrition and Metabolism I
Prerequisites: Introductory nutrition, organic chemistry, physiology or consent of instructor.
Description: Examine the chemical characteristics and functions of macronutrients; digestion, absorption, transport and metabolism of macronutrients; control of intermediary metabolism and metabolic pathways. No credit for students with degree credit in NSCI 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5313 Dietary and Herbal Supplements
Prerequisites: Introductory nutrition and human physiology; or consent of instructor.
Description: Explore the safety and efficacy of botanical/herbal and dietary supplements in health applications including dietary supplementation in the prevention and treatment of chronic disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5323 Physical Health, Nutrition, Wellness and Active Aging
Description: Normative biological and physiological changes due to aging are identified with a focus on how environmental factors such as physical activity and nutrition can support health aging and prevention of frailty and age-related diseases. Multiple facets of active aging that can augment quality of life will be examined. Resources for implementation of inclusive programs for diverse groups of aging adults will be explored. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5353 Human Nutrition and Metabolism II
Prerequisites: Introductory nutrition, organic chemistry, biochemistry and physiology.
Description: Chemical characteristics, absorption, transport, functions, requirements and health implications of vitamins and minerals. Discussion of phytochemicals and supplements in relation to health maintenance and disease prevention. No credit for students with degree credit in NSCI 4143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5363 Maternal and Child Nutrition
Prerequisites: NSCI 2114 or equivalent.
Description: Nutritional needs and dietary concerns during pregnancy, lactation, infancy and childhood through puberty. Discussion of implications for nutrition intervention, family education and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5373 Childhood Nutrition
Prerequisites: Admission to MS in Dietetics.
Description: The physiological, biochemical, and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Discussion of medical nutrition therapy for a variety of medical conditions found in this population including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5393 Nutrition and Aging
Prerequisites: NSCI 2114 or equivalent.
Description: Nutritional needs, and dietary concerns of the elderly. Implications for food and nutrition programs, policies, research and education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5403 Contemporary Issues in Dietetics Practice
Description: Contemporary management practices in the field of dietetics including innovative solutions and processes in program, clinical and food systems management. Online, asynchronous format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5412 Dietetic Internship Management Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved food service management for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis. Previously offered as NSCI 5440.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5422 Dietetic Internship Clinical Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved clinical for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5432 Dietetic Internship Community Nutrition Practicum
Prerequisites: Acceptance as a dietetic intern.
Description: Supervised learning experiences in approved community nutrition settings for the achievement of performance requirements for entry level dietitians. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5443 Precision Nutrition
Prerequisites: For graduate students in NSCI or by permission of the instructor.
Description: Fundamental concepts for understanding, interpreting, and evaluating studies related to precision nutrition. The goal of this course is to help students understand, in depth, the influence of genetics and epigenetics on nutrient metabolism, and the implications for human metabolic diseases such as cardiovascular disease and cancer. We will also review the current evidence, uncertainties and controversies, and future directions in precision nutrition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5453 Nutrition and Health Disparities
Prerequisites: Lifespan nutrition; or Consent of Instructor.
Description: Examination of nutrition and health disparities in the U.S. Identification of sociocultural determinants of health and their influence on nutrition and health outcomes. Exploration of interdisciplinary strategies to reduce nutrition and health disparities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5473 Pediatric Clinical Nutrition
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of instructor.
Description: Examination of the physiological, biochemical and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Medical nutrition therapy for a variety of medical conditions found in this population including inborn errors of metabolism, food hypersensitivity, obesity and diseases of the major organ systems. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5513 Public Health Nutrition
Prerequisites: Admission to Great Plains IDEA MS in Dietetics or consent of Instructor.
Description: Information and activities related to public health nutrition with focus on how nutrition research, policies and programs impact populations. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5543 Obesity Prevention Across the Lifespan
Prerequisites: Introductory and lifespan nutrition; or consent of instructor.
Description: Obesity in the population from childhood to the adult age groups. Examination of the impact of obese conditions on disease development throughout the life span. Critical analysis of prevention efforts and interventions used in the behavioral and clinical management of overweight and obese individuals in community and clinical settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5553 Global Nutrition and Food Security
Description: Advanced study of the magnitude, causes, and nature of hunger and under-nutrition in low income countries; emphasis on programs, policies and planning directed toward alleviating hunger and malnutrition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5563 Nutritional Assessment
Prerequisites: Lifespan nutrition, human nutrition & metabolism, or equivalent.
Description: Dietary, physical, and biochemical assessment techniques and their application to patient or client nutritional status assessment in health care systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5603 Statistical Methods in Dietetics
Prerequisites: Admission to MS in Dietetics.
Description: The elementary tools that are commonly used in making statistical decisions in the field of dietetics. Understanding of data and the methods used to analyze such data particularly as it pertains to the dietetics profession. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5613 Nutrition Education and Behavior Change
Prerequisites: Consent of instructor.
Description: Analysis and practice of various learning and behavior change theories and application for understanding and/or modifying eating behavior, diet, and related health indices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5643 Advanced Medical Nutrition Therapy
Prerequisites: Admission to dietetic internship or consent of instructor.
Description: Physiological and metabolic bases for nutritional support in disease.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 5673 Human Resources
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Future role, focus, practices and governance of human resources in health care.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5683 Fundamentals of Leadership in Dietetics
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Study of the key issues in the theory, research, and application of leadership within the context of dietetics practice. Includes defining leadership, understanding situational characteristics that facilitate/hinder effective leadership, understanding effective/dysfunctional leadership, and gaining greater insight into one's own leadership style and functioning. Web-based instruction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5713 Public Health Nutrition and Food Policy
Prerequisites: Consent of instructor
Description: Current issues in the public health and community nutrition with emphasis on the impact of legislative, political, economic, environmental and cultural diversity factors on food systems and nutritional well-being of populations. Application to grant writing, program planning and evaluation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5743 Advanced Laboratory Techniques in Nutritional Sciences
Prerequisites: A course in biochemistry and a course in statistics.
Description: An integrated lecture and laboratory course examining the basic theories and techniques used in experimental nutritional sciences. Application of a range of biochemical and molecular biological techniques as they are currently applied to modern biomedical research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Nutritional Sciences

NSCI 5753 Health Care Administration
Prerequisites: Admission to MS in Dietetics.
Description: Overview of U.S. and international health care systems. Administrative roles of health care professionals and how they affect patient health and health care delivery in various settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5843 Non-thesis Graduate Capstone
Prerequisites: Final semester and consent of instructor.
Description: A guided course with a research paper and presentation that is the final requirement for graduate students in NSCI's Master of Science degree, non-thesis plan. Not recommended for students interested in pursuing a PhD. Graded on a pass-fail basis. Previously offered as NSCI 5840.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5870 Problems in Nutritional Science
Description: Analysis of emerging problems and trends in nutritional sciences. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 5913 Nutritional Epidemiology
Prerequisites: HLTH 5323 or MPH 5323 or admission to NSCI graduate program, and Introductory Nutrition and Statistics, or consent of instructor.
Description: Assessing the impact of nutrition and physical activity on health outcomes from an epidemiological perspective. Attention will be given to understanding the spectrum of study designs, including their benefits and drawbacks, used to examine this relationship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 5960 Master's Seminar in Nutritional Sciences
Prerequisites: NSCI graduate students.
Description: Individual and group seminars on current issues and research in nutritional sciences. Previously offered as NSCI 5961. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Nutritional Sciences

NSCI 5962 Environmental Scanning and Analysis
Prerequisites: Admission to Great Plains IDEA online MS in Dietetics or consent of instructor.
Description: Review of current issues in the economic, social, ethical, political, legal, technological, and ecological environments and the effect of these changes on dietetics practice. Previously offered as NSCI 5963.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6000 Doctoral Dissertation
Prerequisites: Consent of major professor.
Description: Offered for variable credit, 1-12 credit hours, maximum of 45 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 6022 Advanced Energy Metabolism
Prerequisites: NSCI 5033 and NSCI 5043
Description: Critical discussion and directed study of current literature and concepts in the nutritional control of gene expression and regulation of energy homeostasis from the cellular to organismal level.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6033 Functional Foods and Phytochemicals
Prerequisites: Advanced human nutrition/metabolism or consent of instructor.
Description: Identification of basic structural, functional and metabolic properties of phytochemicals (substances in plants that have been linked to reducing chronic disease) and their respective food sources. Special attention placed on health benefits and chronic disease risk reduction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6223 Nutrition in Immunology
Prerequisites: NSCI 5043 or consent of instructor.
Description: Principles and issues related to nutrition and immunology. Impact of nutrients and nutritional status on integrity of the immune system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6243 Nutrition and Cancer
Description: Examination of basic cancer biology and methodology used to study nutrition and cancer relationships. The role of nutrition in specific cancers, cancer prevention and cancer treatment will be explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6451 Advanced Grant Writing in Nutritional Sciences
Prerequisites: Admission to the PhD in NSCI and NSCI 5123 or equivalent, or consent of instructor.
Description: Grant writing, identifying external funding and managing grants for nutritional sciences research projects.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6643 Clinical Aspects of Nutrition Support
Prerequisites: Medical nutrition therapy; or consent of instructor.
Description: Specialized nutrition assessment and support. Review of energy expenditure and substrate utilization in specific disease states. Current methods for the initiation and management of enteral and parenteral nutrition therapy including access, metabolic and mechanical complications. Evaluation of nutrition support methodology in selected disease states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Nutritional Sciences

NSCI 6870 Independent Study in Nutritional Sciences
Description: In-depth analysis of research issues in nutritional sciences. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Nutritional Sciences

NSCI 6960 Seminar: Emerging Topics in Nutrition
Description: Critical evaluation of research in nutritional sciences. Individual and group seminars on selected topics. Previously offered as NSCI 6961. Offered for fixed credit, 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Nutritional Sciences

Undergraduate Programs

- Nutritional Sciences: Allied Health, BS (p. 2058)
- Nutritional Sciences: Dietetics, BS (p. 2061)
- Nutritional Sciences: Human Nutrition/Pre-Medical Sciences, BS (p. 2063)
- Nutritional Sciences: Public Health Nutrition, BS (p. 2066)

Graduate Programs

The Department of Nutritional Sciences (NSCI) offers graduate study leading to a Graduate Certificate in Dietetics, Master of Science degree in Nutritional Sciences and a Doctor of Philosophy degree in Nutritional Sciences. Graduate study in NSCI emphasizes the conduct and application of research to the field of human nutrition. Graduate students work with an advisor and advisory committee to develop flexible, yet rigorous programs of study and research that meet the degree requirements and each student's professional goals within an area of specialization in the field.

The Graduate Certificate in Dietetics

The Graduate Certificate in Dietetics builds competencies in the area of Dietetics and provides a path for eligibility to sit for the Registered Dietitian Nutritionist credential examination. The Graduate Certificate in Dietetics is designed for students who are concurrently enrolled in a Master of Public Health (MPH) or related graduate program. Applicants must have completed an Accreditation Council for Nutrition and Dietetics (ACEND) accredited Didactic Program in Dietetics and have a verification statement. The Plan of Study (POS) includes 18 credit hours, including the dietetic internship practicum courses. The practicum courses fulfill the supervised practice requirements of ACEND.

The Master of Science Degree

The MS degree program is designed to develop research skills, stimulate independent thought and critical thinking, and provide up-to-date knowledge in a variety of areas of human nutrition. Admission to the MS graduate program is selective and is based on a variety of factors including the student's grade-point average (overall and science GPA), letters of recommendation and goal statement; Graduate Record Examination (GRE) scores are optional. The prerequisite for the MS program is a BS in nutritional sciences. Students with a BS degree in a subject area other than nutrition are required to have a minimum of 30 credit hours of undergraduate/graduate coursework related to nutritional sciences, including at least one course in biochemistry, one course in physiology and one upper-level nutrition course prior to full admission. Applicants who do not meet these requirements may be considered for conditional acceptance and required to take prerequisite courses and/or demonstrate academic ability.

Students in the MS NSCI program may select from three options: Dietetics Research, Dietetics Practice, or Nutrition. Choosing an option should be guided by the student's academic and career goals. In all three options, the student's plan of study and area of research, if applicable, are determined in consultation with his/her advisor and advisory committee. The Dietetics Research and Dietetics Practice options are designed for students who aim to earn a MS degree and complete the accredited Dietetic Internship program. Respectively, the two options require a minimum of 36 or 30 credit hours. Students applying for these options must have completed an ACEND accredited Didactic Program in Dietetics and have a verification statement. The Nutrition option is designed for students who aim to enhance their career with a graduate degree or to prepare for a doctoral program. Students desiring to conduct research should select either the Dietetics Research or Nutrition option; both have a thesis and non-thesis plan. In both plans, thesis research is conducted within the advisor's area of expertise and is approved by an advisory committee. The non-thesis MS degree plan requires three credit hours of NSCI 5843 Non-thesis Graduate Capstone including a written research paper and an oral presentation.

An online Master of Science degree in Nutritional Sciences in Dietetics is also offered to Registered Dietitians (RD), individuals who are RD eligible, or have completed a Didactic Program in Dietetics. OSU offers this degree program as a member of the Interactive Distance Education Alliance (IDEA) which provides the opportunity for eligible individuals to study with faculty from three universities in the Alliance via Internet-based courses. The MS in Dietetics requires completion of 30 credit hours, including nine core credits, six OSU Nutritional Sciences Core credits, 18 elective credits and NSCI 5843 Non-thesis Graduate Capstone. A faculty advisor and the graduate committee from the Nutritional Sciences department must approve a student's program of study. More detailed information can be found at: MS-Dietetics Online (https://osuonline.okstate.edu/programs/graduate/dietetics-ms.html).

The Doctor of Philosophy Degree

The PhD degree is awarded in Nutritional Sciences. Two programs are available: a 60-hour program for MS graduates and an 80-hour program for BS graduates. The focus of the program is to prepare individuals for careers in a variety of areas including higher education, industry, healthcare and governmental programs. Admission to the program is competitive and applicants are expected to provide evidence of exceptional academic ability and preparation, a statement of goals and letters of recommendation. Grade-point average in previous undergraduate, professional school and graduate coursework are considered in the evaluation of the applicant; Graduate Record Examination (GRE) scores are optional. If a thesis was not required as a component of the applicant's MS program, the student's advisory committee reserves the right to determine if a thesis or thesis-equivalent project must be completed.

Students accepted into the 60-credit hour PhD option must have completed 30 hours of graduate coursework in nutrition or an area of specialization such as biochemistry, biology, dietetics, public health, exercise science, food science, hospitality/restaurant management, or other major field related to the desired area of study. A master's degree is highly preferred but not required. If a thesis was not completed as a part of the graduate coursework, the student's advisory committee reserves the right to determine if a thesis or thesis-equivalent project must be completed. Students with a degree or graduate coursework in a subject area other than nutrition may be considered for provisional admission with courses completed in the first year of admission to assure a basic nutrition foundation and earning a 3.0 or higher GPA. The graduate faculty committee will determine which courses must be completed within the first year of admission; the courses will be indicated in the applicant's admission letter.

Students accepted into the 80-credit hour PhD option must hold a Bachelor of Science (BS) in nutrition or an area of specialization such as biochemistry, biology, dietetics, public health, exercise science, food science, hospitality/restaurant management, or other major field related to the desired area of study. Students with a degree in a subject area other than nutrition may be considered for provisional admission with completion of courses in the first year of admission to assure a basic nutrition foundation and the student earns a 3.0 or higher GPA. The graduate faculty committee will determine which courses must be completed within the first year of admission and will be indicated in the applicant's admission letter.

The PhD program includes a strong emphasis on research in areas ranging from basic molecular and cellular sciences to clinical and community applications. Students also gain experience in resource generation, knowledge sharing and community engagement. Each program of study is designed by the student under direction of his/her faculty advisor and advisory committee to develop the student's competence in an area of specialization and research methodologies. Doctoral training includes 15-30 hours of dissertation research, a qualifying examination covering core nutrition knowledge, a comprehensive examination focused on the area of specialization and participation in research throughout the program.

More detailed information on graduate study in the Department of Nutritional Sciences can be obtained by writing the graduate coordinator, or accessing the website at Department of Nutritional Sciences, Graduate Programs (https://education.okstate.edu/departments-programs/nutritional-sciences/graduate.html).

Minors

- Nutritional Sciences (NSCI), Minor (p. 2057)

Certificates

- Post-Baccalaureate in Dietetics, UCRT (p. 2069)

Faculty

Norman Hord, PhD, RD—Professor and Department Head
Professor, Associate Department Head: Deana Hildebrand, PhD, RD/LD
Associate Professor, Graduate Coordinator: Jillian Joyce, PhD, RD
Regents Professor and Jim and Lynne Williams Endowed Professor: Edralin A. Lucas, PhD
Professor, Senior Associate Dean for Research, Graduate Studies, and Faculty Affairs: Stephen L. Clarke, PhD, RD
Professor and John and Sue Taylor Endowed Professor: Dingbo Lin, PhD
Associate Professors: Winyoo Chowanadisai, PhD; Sam Emerson, PhD
Assistant Professors: Jiyoung Bae, PhD; Yoo Kim, PhD; Harriet Okronipa, PhD; Rachel Liebe, PhD
Assistant Professor and State Extension Specialist: Nila Pradhananga, PhD
Teaching Professor: Gena Wollenberg, PhD, RD/LD
Teaching Associate Professor, Dietetic Internship Program Director: Lauren Amaya, PhD, RD/LD
Teaching Assistant Professor, Didactic Program in Dietetics Director and Dietetic Internship Assistant Program Director: Catherine Palmer, MS, RD/LD
Teaching Associate Professor: Shirley Evans, PhD, PA, RD/LD

Teaching Assistant Professor: Michael Rhone, MS, RD
Extension Specialist, CNEP Coordinator: Candance Gabel, MS, RD/LD
Associate Extension Specialists: Diana Romano, MS, RD/LD
Assistant Extension Specialist: Christi Evans, MS, RD; Lacey Wallace, MEd, CHES
Emeritus Regents Professor: Barbara J. Stoecker, PhD, RD/LD, FAND
Emeritus Professor: Janice Hermann, PhD, RD/LD

Nutritional Sciences (NSCI), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Department of Nutritional Sciences, 301 Nancy Randolph Davis, 405-744-5040

Minimum Overall Grade Point Average: 2.50
Total Hours: 17

Code	Title	Hours
Minor Requirements		
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
NSCI 3011	Nutrition and Evidence-based Practice I	1
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3543	Food and the Human Environment (IS)	3
Choose 5-6 Hours from Elective Courses		5
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	
NSCI 4123	Human Nutrition and Metabolism I	
NSCI 4133	Nutrition for Exercise and Sport	
NSCI 4143	Human Nutrition and Metabolism II	
NSCI 4373	Principles of Nutrition Education and Behavior Change	
NSCI 4632	Community Nutrition I	
NSCI 4633	Community Nutrition II	
NSCI 4913	Nutritional Epidemiology	
Total Hours		**17**

Other Requirements

- Acceptance to the minor based upon cumulative graduation/retention GPA of 2.50.
- Minimum of "C" required in all minor courses.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Nutritional Sciences: Allied Health, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1215	Chemical Principles I (LN) [1]	4
or CHEM 1314	Chemistry I (LN)	
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
Exploring Society & Human Behavior (S)		
HLTH 2603	Total Wellness (S) [2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
NSCI 3543	Food and the Human Environment (GS) [2]	3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
HDFS 2113	Lifespan Human Development (S)	3
Nutritional Sciences		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
SPCH 2713	Introduction to Speech Communication (S)	3
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
NSCI 3011	Nutrition and Evidence-based Practice I	1
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 4021	Nutrition and Evidence-based Practice III	1
Hours Subtotal		**18**
Major Requirements		
2.50 GPA is required for Major Requirements		
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3440	Nutritional Sciences Pre-Professional Experience (1 hour)	1
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4373	Principles of Nutrition Education and Behavior Change	3
BIOL 3204	Physiology	4
BIOL 3214	Human Anatomy	4
Select one of the following (see advisor):		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory [1]	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II [1]	
HHP 2802	Medical Terminology for the Health Professions	2
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
UNIV 2511	Introduction to Health Careers	1
18-21 hours of controlled electives to total 62 hours of major requirements [1]		21
Hours Subtotal		**62**
Total Hours		**120**

1

If student completes CHEM 3013 Survey of Organic Chemistry and CHEM 3012 Survey of Organic Chemistry Laboratory, student must take 21 hours of controlled electives. If student completes CHEM 3053 Organic Chemistry I, CHEM 3112 Organic Chemistry Laboratory and CHEM 3153 Organic Chemistry II, student must take 18 hours of controlled electives.

2

Included in the Major Requirements when calculating Major GPA

Consult admissions requirements for specific professional programs.

Ensure that enough upper-division controlled electives are taken to meet the 40 hour upper-division Regents requirement.

This degree program does not meet all the Didactic Program in Dietetics academic course requirements. See the NSCI Major/Dietetics Option sheet for courses to be added.

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College/Departmental and Major Requirements.
- A grade of "C" or better is required in all NSCI 3000- and 4000-level courses.
- Transfer Admission Requirement: 2.50 GPA.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
UNIV 1111	First Year Seminar	1
MATH 1513 or MATH 1483	College Algebra (Q) or Mathematical Functions and Their Uses (Q)	3
UNIV 2511	Introduction to Health Careers	1
	Hours	**13**
Spring		
CHEM 1314 or CHEM 1215	Chemistry I (LN) [1] or Chemical Principles I (LN)	4
POLS 1113	American Government	3
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
3 Hour General Education (H)		3
	Hours	**16**
Sophomore		
Fall		
NSCI 3440	Nutritional Sciences Pre-Professional Experience	1
CHEM 1515 or CHEM 1225	Chemistry II (LN) or Chemical Principles II (LN)	5
HLTH 2603	Total Wellness (S)	3
3 Hour Controlled Elective (PSYC 1113 recommended)		3
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
NSCI 3223	Nutrition Across the Life Span	3
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry [1] or Organic Chemistry I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
SPCH 2713	Introduction to Speech Communication (S)	3
3 hours of controlled electives		3
	Hours	**15**
Junior		
Fall		
NSCI 3543	Food and the Human Environment (GS)	3
NSCI 3011	Nutrition and Evidence-based Practice I	1
BIOL 3204	Physiology	4
CHEM 3012 or CHEM 3153	Survey of Organic Chemistry Laboratory or Organic Chemistry II	2
MICR 2123	Introduction to Microbiology	3
1 hour General Education (Q, H, N, S, D, G or F)		1
	Hours	**14**
Spring		
NSCI 3021	Nutrition and Evidence-based Practice II	1
CHEM 3112	Organic Chemistry Laboratory [1]	
MICR 2132	Introduction to Microbiology Laboratory	2
BIOL 3214	Human Anatomy	4
HHP 2802	Medical Terminology for the Health Professions	2
HDFS 2113	Lifespan Human Development (S)	3
3 hours of controlled electives		3
	Hours	**15**
Senior		
Fall		
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4021	Nutrition and Evidence-based Practice III	1
3 hours General Education (H)		3
6 hours of upper-division controlled electives		6
	Hours	**16**
Spring		
NSCI 4373	Principles of Nutrition Education and Behavior Change	3
NSCI 4143	Human Nutrition and Metabolism II	3
3 hours General Education (D)		3

3-6 hours of controlled electives [1, 2]	6
Hours	**15**
Total Hours	**120**

1

If a student takes CHEM 1215 Chemical Principles I (LN) one hour will count as a controlled elective. If student completes CHEM 3013 Survey of Organic Chemistry and CHEM 3012 Survey of Organic Chemistry Laboratory, student must take 22 hours of controlled electives. If student completes CHEM 3053 Organic Chemistry I, CHEM 3112 Organic Chemistry Laboratory and CHEM 3153 Organic Chemistry II, student must take 19 hours of controlled electives.

2

Hours variation dependent on Organic Chemistry series taken.

Nutritional Sciences: Dietetics, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
NSCI 3543	Food and the Human Environment (GS) [1]	3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
HDFS 2113	Lifespan Human Development (S)	3
SPCH 2713	Introduction to Speech Communication (S)	3
NSCI 3011	Nutrition and Evidence-based Practice I	1
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 4021	Nutrition and Evidence-based Practice III	1
Hours Subtotal		**11**
Major Requirements		
2.50 GPA is required for Major Requirements		
NSCI 2211	Professional Careers in Dietetics	1
NSCI 2013 & NSCI 2011	Principles of Human Nutrition (N) and Applied Principles of Human Nutrition	4
NSCI 3133	Science of Food Preparation	3
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3312	Nutrition Care Process and Assessment	2
NSCI 3440	Nutritional Sciences Pre-Professional Experience (1 hour)	1
NSCI 3813	Nutrition Counseling	3
NSCI 3993	Culinary Principles in Nutrition	3
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 4111	Professional Preparation for Careers in Dietetics	1
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4331	Quantity Food Production Practicum	1
NSCI 4573	Management in Dietetics	3
NSCI 4632	Community Nutrition I	2
NSCI 4633	Community Nutrition II	3
NSCI 4854	Medical Nutrition Therapy I	4
NSCI 4864	Medical Nutrition Therapy II	4
ACCT 2103	Financial Accounting	3
or ACCT 2003	Survey of Accounting	
BIOC 3653	Survey of Biochemistry	3
BIOL 3204	Physiology	4
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	5
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Hours Subtotal		**67**
Total Hours		**121**

[1] Included in the Major Requirements with calculating Major GPA.

This degree program meets the Didactic Program in Dietetics requirements for the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, 312/899-0040, Ext. 5400.

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College/Departmental and Major Requirements.
- A grade of "C" or better is required in all NSCI 3000- and 4000-level courses.
- Transfer Admission Requirement: 2.50 GPA.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
UNIV 1111	First Year Seminar	1
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1513 or MATH 1483	College Algebra (Q) or Mathematical Functions and Their Uses (Q)	3
	Hours	**15**
Spring		
NSCI 2211	Professional Careers in Dietetics (Spring Only)	1
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
HDFS 2113	Lifespan Human Development (S)	3
	Hours	**14**
Sophomore		
Fall		
CHEM 1225 or CHEM 1515	Chemical Principles II (LN) or Chemistry II (LN)	5
POLS 1113	American Government	3
NSCI 3993	Culinary Principles in Nutrition (Fall Only)	3
NSCI 3440	Nutritional Sciences Pre-Professional Experience	1
PSYC 1113	Introductory Psychology (S)	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
CHEM 3013	Survey of Organic Chemistry	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
NSCI 3223	Nutrition Across the Life Span	3
3 hours General Education (H)		3
ACCT 2003	Survey of Accounting	3
	Hours	**17**
Junior		
Fall		
NSCI 3312	Nutrition Care Process and Assessment (Fall Only)	2
NSCI 3011	Nutrition and Evidence-based Practice I	1
BIOC 3653	Survey of Biochemistry	3
BIOL 3204	Physiology	4
3 hours General Education (H/D)		3
SPCH 2713	Introduction to Speech Communication (S)	3
	Hours	**16**
Spring		
NSCI 3813	Nutrition Counseling (Spring Only)	3
NSCI 3543	Food and the Human Environment (GS)	3
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 3021	Nutrition and Evidence-based Practice II	1
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
	Hours	**15**
Senior		
Fall		
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4854	Medical Nutrition Therapy I (Fall Only)	4
NSCI 4573	Management in Dietetics (Fall Only)	3
NSCI 4111	Professional Preparation for Careers in Dietetics (Fall Only)	1
NSCI 4021	Nutrition and Evidence-based Practice III	1
NSCI 4632	Community Nutrition I (Fall Only)	2
	Hours	**14**
Spring		
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 3133	Science of Food Preparation (Spring Only)	3
NSCI 4633	Community Nutrition II (Spring Only)	3
NSCI 4864	Medical Nutrition Therapy II (Spring Only)	4
NSCI 4331	Quantity Food Production Practicum	1
	Hours	**14**
	Total Hours	**121**

Nutritional Sciences: Human Nutrition/Pre-Medical Sciences, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Recommended:		
PHIL 3833	Biomedical Ethics (H)	
or PHIL 4013	Perspectives on Death and Dying (H)	
Course designated (DH)		3
Recommended:		
ENGL 2413	Exploring Literature (DH)	
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Recommended:		
SOC 1113	Introductory Sociology (S)	
Diversity (D)		
Course designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
NSCI 3543	Food and the Human Environment (GS)	3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MATH 1613	Trigonometry (Q)	3
or MATH 1813	Preparation for Calculus (Q)	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Human Sciences		
HDFS 2113	Lifespan Human Development (S)	3
Nutritional Sciences		
SPCH 2713	Introduction to Speech Communication (S)	3
NSCI 3011	Nutrition and Evidence-based Practice I	1
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 4021	Nutrition and Evidence-based Practice III	1
Hours Subtotal		**11**
Major Requirements		
2.50 GPA is required for Major Requirements		
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3440	Nutritional Sciences Pre-Professional Experience (1 hour)	1
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4143	Human Nutrition and Metabolism II	3
BIOC 3653	Survey of Biochemistry	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
BIOL 3204	Physiology	4
BIOL 3214	Human Anatomy	4
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
STAT 2013	Elementary Statistics (Q)	3
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
PSYC 1113	Introductory Psychology (S)	3
UNIV 2511	Introduction to Health Careers	1

UNIV 3511	Health Profession School Preparation	1
Select 3 hours of preprofessional/prehealth controlled electives to total 69 hours of major requirements		3
Hours Subtotal		**66**
Total Hours		**120**

Students with AP or CLEP credit must talk to advisors.

One writing-intensive English course is recommended for medical school admission. Students are encouraged to select a course with (D,H) designation such as ENGL 2413 Exploring Literature (DH).

This degree program meets pre-med requirements for Oklahoma medical schools. Consult the admissions requirements for medical schools of choice for additional prerequisites, such as calculus.

This degree program does not meet all the Didactic Program in Dietetics academic course requirements. See the NSCI Major/Dietetics Option sheet for courses to be added.

With approval from advisor and department head, maximum of 30 hours of courses from an accredited doctoral health program may be substituted for major requirements, other than NSCI 3011 Nutrition and Evidence-based Practice I, NSCI 3021 Nutrition and Evidence-based Practice II, NSCI 3223 Nutrition Across the Lifespan and NSCI 4143 Human Nutrition and Metabolism II.

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College/Departmental and Major Requirements.
- A grade of "C" or better is required in all NSCI 3000- and 4000-level courses.
- This degree sheet includes requirements for pre-medical, pre-dental and pre-optometry.
- Transfer Admission Requirement: 2.50 GPA.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
UNIV 1111	First Year Seminar	1
MATH 1513	College Algebra (Q)	3
UNIV 2511	Introduction to Health Careers (Fall Only)	1
	Hours	**13**
Spring		
CHEM 1314	Chemistry I (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
3 hours (S) - SOC 1113 recommended		3
3 hours of controlled electives - BIOL 1604 recommended		3
	Hours	**16**
Sophomore		
Fall		
NSCI 3440	Nutritional Sciences Pre-Professional Experience	1
CHEM 1515	Chemistry II (LN)	5
MICR 2123	Introduction to Microbiology	3
STAT 2013	Elementary Statistics (Q)	3
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
NSCI 3223	Nutrition Across the Life Span	3
CHEM 3053	Organic Chemistry I	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
BIOL 3204	Physiology	4
MICR 2132	Introduction to Microbiology Laboratory	2
	Hours	**16**
Junior		
Fall		
NSCI 3011	Nutrition and Evidence-based Practice I	1
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
MICR 3033	Cell and Molecular Biology	3
PSYC 1113	Introductory Psychology (S)	3
	Hours	**16**
Spring		
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 3543	Food and the Human Environment (GS)	3
BIOC 3653	Survey of Biochemistry	3
BIOL 3214	Human Anatomy	4
BIOL 3023	General Genetics	3
UNIV 3511	Health Profession School Preparation (Spring Only)	1
	Hours	**15**
Senior		
Fall		
NSCI 4023	Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 4123	Human Nutrition and Metabolism I	3

SPCH 2713	Introduction to Speech Communication (S)	3
3 hours General Education (H/D)		3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**15**
Spring		
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4021	Nutrition and Evidence-based Practice III	1
3 hours General Education (H)		3
HDFS 2113	Lifespan Human Development (S)	3
POLS 1113	American Government	3
	Hours	**13**
	Total Hours	**120**

Nutritional Sciences: Public Health Nutrition, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1513	College Algebra (Q)	
or MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1613	Trigonometry (Q)	
MATH 1813	Preparation for Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
Exploring Society & Human Behavior (S)		
SOC 1113	Introductory Sociology (S)	3
Diversity (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
NSCI 3543	Food and the Human Environment (GS) [1]	3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
HDFS 2113	Lifespan Human Development (S)	3
SPCH 2713	Introduction to Speech Communication (S)	3
NSCI 3011	Nutrition and Evidence-based Practice I	1
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 4021	Nutrition and Evidence-based Practice III	1
Hours Subtotal		**11**
Major Requirements		
2.50 GPA is required for Major Requirements		
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 2011	Applied Principles of Human Nutrition	1
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3440	Nutritional Sciences Pre-Professional Experience (1 hour)	1
NSCI 3733	Environmental Nutrition	3
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4632	Community Nutrition I	2
NSCI 4633	Community Nutrition II	3
BIOL 3204	Physiology	4
HLTH 2213	Introduction to Public Health	3
PSYC 1113	Introductory Psychology (S)	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Emphasis Requirements		
Select an emphasis (p. 2066)		29
Hours Subtotal		**66**
Total Hours		**120**

[1] Included in the Major Requirements when calculating Major GPA.

Emphasis

Public Health Nutrition (PHN)

Code	Title	Hours
ECON 1113	The Economics of Social Issues (S)	3
NSCI 3312	Nutrition Care Process and Assessment	2

HLTH 3723	Principles of Epidemiology	3
ACCT 2003	Survey of Accounting	3
NSCI 4573	Management in Dietetics	3
or MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	3
NSCI 3813	Nutrition Counseling	3
NSCI 4913	Nutritional Epidemiology	3
Controlled Electives		
Choose 6 hours from the following list:		6
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BIOL 3123	Human Heredity (N)	
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	
HDFS 3423	Adolescent Development in Family Contexts (S)	
HDFS 4543	Intergenerational Relationships (S)	
HDFS 4813	Dying, Death and Bereavement	
HDFS 4823	Aging Concepts and Controversies	
HLTH 3913	Substance Use & Public Health	
MGMT 3313	Human Resource Management	
MICR 3103	Microbes: Friends or Foes (N)	
NSCI 4133	Nutrition for Exercise and Sport	
PHIL 3833	Biomedical Ethics (H)	
PHIL 4013	Perspectives on Death and Dying (H)	

Public Health Pre-Med

Code	Title	Hours
BIOC 3653	Survey of Biochemistry	3
BIOL 3023	General Genetics	3
BIOL 3214	Human Anatomy	4
CHEM 3053	Organic Chemistry I	3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4

Note: Care must be taken not to include credit hours twice under different sections of the degree sheet.

Ensure that enough upper-division controlled electives are taken to meet the 40 hour upper-division Regents requirement.

This degree program does not meet all the Didactic Program in Dietetics academic course requirements. See the NSCI Major/Dietetics Option sheet for courses to be added.

Other Requirements

- 40 upper-division hours required.
- A 2.50 Major GPA is required. This includes all courses in College/Departmental and Major Requirements.
- A grade of "C" or better is required in all NSCI 3000- and 4000-level courses.
- Transfer Admission Requirement: 2.50 GPA.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
NSCI 2013	Principles of Human Nutrition (N)	3
UNIV 1111	First Year Seminar	1
NSCI 2011	Applied Principles of Human Nutrition	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1513 or MATH 1483	College Algebra (Q) or Mathematical Functions and Their Uses (Q)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
HLTH 2213	Introduction to Public Health	3
SOC 1113	Introductory Sociology (S)	3
	Hours	**13**
Sophomore		
Fall		
NSCI 3733	Environmental Nutrition (Fall Only)	3
CHEM 1225 or CHEM 1515	Chemical Principles II (LN) or Chemistry II (LN)	5
PSYC 1113	Introductory Psychology (S)	3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
NSCI 3440	Nutritional Sciences Pre-Professional Experience	1
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**

Spring		
NSCI 3223	Nutrition Across the Life Span	3
MICR 2123	Introduction to Microbiology	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
HDFS 2113	Lifespan Human Development (S)	3
SPCH 2713	Introduction to Speech Communication (S)	3
	Hours	**15**
Junior		
Fall		
NSCI 3312	Nutrition Care Process and Assessment (Fall Only)	2
NSCI 3543	Food and the Human Environment (GS)	3
NSCI 3011	Nutrition and Evidence-based Practice I	1
BIOL 3204	Physiology	4
MICR 2132	Introduction to Microbiology Laboratory	2
POLS 1113	American Government	3
	Hours	**15**
Spring		
NSCI 3021	Nutrition and Evidence-based Practice II	1
NSCI 3813	Nutrition Counseling (Spring Only)	3
3 hours General Education (H/D)		3
HLTH 3723	Principles of Epidemiology	3
ACCT 2003	Survey of Accounting	3
3 hours of controlled elective		3
	Hours	**16**
Senior		
Fall		
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4632	Community Nutrition I (Fall Only)	2
NSCI 4913	Nutritional Epidemiology (Fall Only)	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
	Hours	**14**
Spring		
NSCI 4633	Community Nutrition II (Spring Only)	3
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4021	Nutrition and Evidence-based Practice III	1
ECON 1113	The Economics of Social Issues (S)	3
3 hours General Education (H)		3
3 hours of controlled electives		3
	Hours	**16**
	Total Hours	**120**

Post-Baccalaureate in Dietetics, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 3.00
Total Hours: 36

Code	Title	Hours
Prerequisites and equivalents		
Prerequisites may be completed as part of a bachelor's degree or completed prior to matriculating into the post-baccalaureate certificate program.		
Principles of Biology, General Chemistry 1, General Chemistry 2, Survey of Organic Chemistry, Survey of Biochemistry, Physiology, Introduction to Psychology, Elementary Statistics, Principles of Nutrition, Nutrition Evidence-Based Practice 1, Food and Environment, Nutrition across the Lifespan		
Core Courses		
NSCI 2011	Applied Principles of Human Nutrition	1
NSCI 3133	Science of Food Preparation	3
NSCI 3312	Nutrition Care Process and Assessment	2
NSCI 3813	Nutrition Counseling	3
NSCI 3993	Culinary Principles in Nutrition	3
NSCI 4123	Human Nutrition and Metabolism I	3
NSCI 4143	Human Nutrition and Metabolism II	3
NSCI 4331	Quantity Food Production Practicum	1
NSCI 4573	Management in Dietetics	3
NSCI 4632	Community Nutrition I	2
NSCI 4633	Community Nutrition II	3
NSCI 4850	Special Unit Studies in Nutritional Sciences	1
NSCI 4854	Medical Nutrition Therapy I	4
NSCI 4864	Medical Nutrition Therapy II	4
Total Hours		**36**

This degree program meets the knowledge requirements for the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, 312/899-0040, Ext. 5400.

Office of Educator Support

Officers of the Professional Education Council

Toni Ivey, PhD—Director of Educator Support and P12 Outreach

The Office of Educator Support (OES) coordinates all Professional Education programs offered at Oklahoma State University. All programs are operated in collaboration with the College of Education and Human Sciences, the Ferguson College of Agriculture, the College of Arts and Sciences, and the Graduate College. The Director of Educator Support is the head of the office. The Professional Education Council has been established as the governance and oversight structure for the Office of Educator Support and all professional education programs. The OES has a mission statement, goals, and a strategic plan that guide the operation of its programs. Oklahoma State University prepares educator candidates with the knowledge, skills, and dispositions for a wide range of certification and teaching areas. Further, there is currently an immense demand for educators in Oklahoma, nationally, and internationally; our graduates are comprehensively prepared to serve as educators and equity advocates wherever they put their professional preparation to work.

Office of Educator Support Mission

Mission - The Office of Educator Support (OES) prepares and develops professional educators who facilitate lifelong learning and enrich the quality of life for people in public schools and other educational settings.

The Work of the Office of Educator Support

All Professional Education programs are administered by the Director of Educator Support and are coordinated through the Office of Educator Support. Upon the completion of an approved program or degree, passing the appropriate Certification Examinations for Oklahoma Educators (CEOE), and the recommendation of the University, the candidate will be eligible for certification to serve in Oklahoma schools. All candidates completing an approved program or applying for an initial or advanced certificate are subject to all rules and regulations specified by the OSU Office of Educator Support, the Oklahoma State Board of Education, and the Office of Educational Quality and Accountability (OEQA). State-mandated changes in teacher certification may result in additional requirements for certification at any time.

Certification programs are offered at various levels in the College of Education and Human Sciences as well as in the Ferguson College of Agriculture and the College of Arts and Sciences, but all require earning at least a bachelor's degree for a recommendation for a standard certificate. Each candidate (regardless of level or college) seeking a recommendation for certification from OSU through a Professional Education program must make a formal application to do so using the "Application for Admission to Professional Education (https://tinyurl.com/osuprofedapp/)" and must meet the admission standards specified. Graduate programs leading to the master's degree, the education specialist degree, and both the Doctor of Education and the Doctor of Philosophy degrees are offered in several areas. In addition, we offer pathways for non-traditional routes to certification in some certification areas. Professional Education at Oklahoma State University is fully accredited by the state and Council for the Accreditation of Educator Preparation (CAEP - the accrediting body that replaced NCATE).

Information regarding all Professional Education policies and practices may be obtained from the Office of Educator Support or its website. Inquiries concerning any aspect of Professional Education programs at Oklahoma State University should be addressed to the head of the School or Department offering the program or the Office of Educator Support, 325 Willard.

Undergraduate Initial Teaching Certification Programs

Elementary Level (PK-8) Programs

- Early Childhood Education (PK-3)
- Elementary Education (1-8)

Elementary/Secondary Level (PK-12) Programs

- Art Education
- Foreign Language (French, German, Spanish) Education
- Music (Instrumental, Vocal) Education

Secondary Level Programs

- Agriculture Education
- Family and Consumer Sciences Education
- Secondary English Education
- Secondary Mathematics Education
- Secondary Science Education
- Secondary Social Studies Education

Graduate Initial Teaching Certification Programs

Advanced Level Certification Programs

- Elementary Math Specialist
- Principal (Elementary/Middle/Secondary) - Standard
- Reading Specialist
- School Counselor
- School Library Media Specialist
- School Psychologist
- Speech/Language Pathologist
- Superintendent

Non-Traditional Certification Paths

- Principal (Elementary/Middle/Secondary) - Alternative

Professional Education Dispositions

Professional Dispositions are formally assessed a minimum of twice during your academic program, once early during the program and once later in the program (see program coordinator for info on which courses they've identified for this). However, dispositions affect your professional life in and out of school, and we want to be certain you're well-prepared to have a successful tenure as an educator.

With that in mind, dispositions may be addressed and recorded at any point in your program, whether a formal or informal interaction and whether interacting with a peer, staff member, or faculty member. We believe it's vital to celebrate your successes as well as speak with you

about areas that could raise challenges for you as a professional, and this is why we have this guiding document as a starting place to be able to work with you on your professional dispositions.

Dispositional concerns are often a reason that candidates are not successful. Please know that if faculty or staff members speak with you about your dispositions, they are doing so because they want you to be successful. As someone in a professional program, however, it is also important to be aware that dispositional challenges may affect your ability to be placed for field experiences or clinical practice; placements are not guaranteed.

Candidates who are not successful will be provided guidance tailored to them, and except in egregious cases or when problems persist over time, candidates who encounter dispositional challenges generally go on to be successful educators. Do not be alarmed at constructive feedback over the course of your program, as this is a learning environment. This assessment offers an opportunity to learn more about your own dispositions and grow in that aspect of your preparation as an education professional. To view the assessment rubric, visit our website: https://education.okstate.edu/sites/default/files/peu/peu_dispositions_assessment.pdf.

Admission to Professional Education

The criteria for admission to Professional Education programs are based on university-wide and Oklahoma State Regents for Higher Education (OSRHE) policies approved by the Professional Education Council and overseen by the Director of Professional Education. Requirements are applicable to all Professional Education administrative units of the colleges preparing educators. Students should submit an Application for Admission to Professional Education form to the Office of Educator Support during their first semester in their respective programs. The candidate is not considered a fully eligible participant in a Professional Education program until formally admitted by the Office of Educator Support. Full admission is required to enroll in the restricted courses in teaching methods and the clinical practice internship.

Criteria for Admission to Undergraduate Professional Education Programs

The student must meet all of the following criteria to be fully admitted to Professional Education:

1. Requirements for full admission include one of the following:
   - The passing score for the ACT® shall be a composite score of 22 with the writing section included. The passing score for the SAT® shall be a total score of 1120 including the following scores on the essay section: five (5) on Reading, four (4) on Analysis, and five (5) on Writing. The ACT/SAT equivalency approved by PEC vote 07.12.2019 following an OEQA policy change allowing this substitution **or**
   - a minimum GPA of 2.75 or higher on a 4.0 scale in all general education courses (a minimum of 30 hours) as defined in the State Regents' Undergraduate Degree Requirements policy and the Office of Educational Quality and Accountability Administrative Code, Title 218 Chapter 10 **or**
   - a score at or above the level designated by the State Regents for math, reading, and writing on the PRAXIS Core Academic Skills for Educators Test (PRAXIS). Students who score below the Oklahoma State Regents for Higher Education 199 designated level on any section(s) of the PRAXIS test will be permitted to retest. The PRAXIS test is an acceptable performance measure for students who have completed at least 30 credit hours **or**
   - possess a Baccalaureate degree from an institution accredited by an organization recognized by the U.S. Department of Education for the purpose of accrediting institutions of higher education and approved by the Oklahoma State Regents for Higher Education. Baccalaureate degree graduates from universities accredited by an organization recognized by the U.S. Department of Education for the purpose of accrediting institutions of higher education in the United States are assumed to have the basic skill competencies tested by the OGET and PRAXIS. These graduates may be exempt from these testing requirements
2. Pass a Professional Education Foundations course with a minimum grade of "C."
3. Pass a laboratory and clinical experience (observation) course with a minimum grade of "P" or "C."
4. Earn and retain at least 2.50 grade point average

Criteria for Admission to Graduate (Post-Baccalaureate) Professional Education Programs

Graduate (post-baccalaureate) students must complete the Application for Admission to Professional Education form. Post-baccalaureate candidates must meet one of the following criteria for full admission to Professional Education:

1. The student must have completed an approved Professional Education program and hold a valid Oklahoma certificate or Provisional, Standard, or Professional Certificate; or a valid certificate from a state with which the Oklahoma State Department of Education has an interstate contract. The certificate or Provisional, Standard, or Professional Certificate must have included successful completion of (a) one semester credit hour of early field experiences with a grade of "C" or better or a grade of "P" and (b) an orientation to professional education course with a grade of "C" or better or a grade of "P." If the graduate student does not hold a valid credential and did not successfully complete the criteria listed above, he or she must meet 2 or 3.
2. Students in a Master's program must satisfy the departmental requirements for unqualified admission to the Master's degree program:
   a. have a minimum cumulative overall GPA of at least 2.50 or higher as specified by the individual program;
   b. complete one semester credit hour of early field experiences with a grade of "C" or better or a grade of "P," and
   c. complete an orientation to Professional Education course with a grade of "C" or better or a grade of "P," and
   d. receive an ACT composite score of 22 with the writing section included, *or* an SAT total score of 1120 including the following scores on the essay section: five (5) on Reading, four (4) on Analysis, and five (5) on Writing.
3. Students classified by the Graduate College as "special" or "provisionally admitted" must:
   a. have a minimum cumulative overall GPA of at least 2.50 or higher as specified by the individual program; and

b. complete one semester credit hour of early field experiences and an orientation to Professional Education course with a grade of "C" or better or a grade of "P," and
c. receive an ACT composite score of 22 with the writing section included, *or* an SAT total score of 1120 including the following scores on the essay section: five (5) on Reading, four (4) on Analysis, and five (5) on Writing.

Transfer Students

Transfer students must work toward meeting the criteria for full admission to Professional Education established by Oklahoma State University as soon as possible during the first semester at OSU. It may be possible to transfer admission from another Oklahoma institution. For more information, see the Office of Educator Support website (https://education.okstate.edu/departments-programs/office-of-educator-support/student-handbook/).

Retention in Professional Education

For participation in all courses requiring full admission to and for continued acceptability in Professional Education, an undergraduate candidate must maintain a grade-point average required for graduation of at least 2.50. If this GPA falls below 2.50, the candidate is placed on probation. When the required graduation GPA is raised above 2.50, the candidate is removed from probation. If the candidate fails to meet the graduation GPA requirement in that probationary semester or fails to have at least a 2.50 GPA for that semester, the candidate will be suspended from the Office of Educator Support. A candidate not satisfying the probation requirements at the end of the semester following the initial probationary semester will be administratively withdrawn from the Office of Educator Support and all courses having full admission as a prerequisite. Readmission to the Office of Educator Support will require a new application. Advisors are available to assist the candidate in regularly reviewing continuing retention or reinstatement in Professional Education programs. A retention review prior to enrollment and again prior to the beginning of classes each semester is encouraged when continuing retention is in question.

Graduate students, including those classified as graduate special students, admitted to the Office of Educator Support must meet and maintain the requirements of the Graduate College to remain in good academic standing. This will require that graduate candidates earn and maintain a 3.00 GPA at Oklahoma State University following admission to OES.

Remediation Opportunities

It is important for candidates to recognize the importance of milestones (admission requirements, testing, portfolio, etc.), professionalism, and dispositions as non-negotiable requirements in Oklahoma State Statutes and national accreditation requirements. Program area faculty, advisors, and OES staff are available to assist candidates through remediation opportunities as needed.

Foreign Language Proficiency

According to OSHRE 3.21.4, (2021) teacher preparation programs at the preservice level shall require students to meet one of two criteria addressing foreign language or Emergent Bilingual / English Learning in P-12 schools:

1. Teacher candidates demonstrate listening and speaking skills at the novice-high level, as defined by the American Council on the Teaching of Foreign Languages, for a language other than English, including American Sign Language. The assessment for such competency may occur at any point in the teacher candidate's program and does not require specified course work or credit hours except as may be required by the institution.
   - 3 hours of college course credit of C or better; OR
   - 2 years of high school credit with a B or better?
2. Teacher candidates demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for the successful delivery of P-12 instruction in that area. The assessment for such competency may occur at any point in the teacher candidate's program through specified course work, approved by the Office of Educational Quality and Accountability (OEQA), and as may be required by the institution. This can be satisfied by taking CIED 4133 Introduction to K12 ELL Education with a "C" or better (or the equivalent micro-credential).

Program Completers

In Oklahoma, a program completer is defined as a person who has met all the requirements of an accredited educator preparation program. Program completers include all those who are documented as having met such requirements. OSU requirements include a degree, program credentials as documented on a transcript and written proof of having met the program's requirements which include successful completion of all certification examinations/assessments. State or national certification or accreditation requirements may necessitate changes in certification requirements at any time. The certification check sheets are available at https://education.okstate.edu/departments-programs/stles/peu/certification.html and detail requirements for each certification area.

Background Check for Field Placements

In alignment with Oklahoma state statutes and administrative code (OS §70-6-190, OS §70-3-104, OAC 210:20-9-98), the Oklahoma State University (OSU) Office of Educator Support (OES) requires a state-level background check (name check) on ALL non-certified candidates prior to placement in any field experience or clinical practice. The candidate is responsible for associated fees, which may vary depending on in-state or out-of-state student status. The OES may request an updated background check as needed. While we make every effort to place candidates in the best possible field experience or clinical practice situation, school districts do review background checks and past criminal history in terms of their own policies and may decline hosting a particular candidate for field experiences or clinical practice. (In most cases this would be an Oklahoma check, however, in the case of an out-of-state transfer student it could be a check from their originating state.) This process is facilitated by the Office of Educator Support (325 Willard).

Field Experiences/Clinical Practice Placement in Diverse Setting

As part of a land-grant institution, we are particularly proud of partnering with Oklahoma public schools. Candidates will experience diverse placements in a variety of settings (rural, urban, and suburban), in varied school community socio-economics, and in racially and ethnically diverse school communities. Previous clinical/field experiences will be considered when determining the internship placement.

Data on all field experience and clinical practice placements is maintained by the Office of Educator Support and Assistant Director of Assessment. Initial and Advanced certification programs work directly

with the Coordinator of Field Experiences and Clinical Practice to best serve candidates and our partnering school districts with research-based experiences. Placements are based on the following criteria:

1. OSU must have a contractual agreement with the participating school district,
2. the principal and the mentor teacher/educator must be in agreement about the placement,
3. the mentor teacher/educator must meet established criteria to work with a candidate,
4. a qualified OSU supervisor must be available for travel to that site, and
5. a program faculty recommendation for clinical practice is required (based on academics, field experiences, and dispositions).

Clinical Practice Requirements

In order to participate in clinical practice, all teacher candidates must complete the Clinical Practice Internship Application during the prior semester. Clinical practice information including the Clinical Practice Application link is available in the OES Student Handbook. Details and the deadline for the clinical practice application will be provided at the mandatory Intent to Student Teach meeting held each semester. Typically, these are the first Wednesday of September at 5pm (for Spring interns) and the first Wednesday of February at 5pm (for Fall interns); location and any schedule changes will be provided by email.

Candidates must successfully complete submissions 1 and 2 of the portfolio, pass the OGET and have received a score on the OSAT, and complete all required coursework with the specified GPAs before a placement will be sought. Candidates will be notified by e-mail of their placements after the Professional Education staff has received confirmation from the cooperating schools.

Candidates should not meet with teachers or principals or otherwise attempt to establish their own placement. The following guidelines should be considered when listing your placement preferences in the space provided on the application:

- Public Schools: All internships occur in public schools.
- Placement Settings: Candidates are placed in a variety of settings (rural, urban, and suburban), in a variety of school community socio-economics, and in racially and ethnically diverse school communities. Previous clinical/field experiences will be considered when determining the internship placement.
- Professional Experiences: Candidates will be placed in a location where professional experiences can develop. You will not be placed in a school where your children attend, a relative is employed, or you have developed personal relationships. In addition, candidates will likely not be placed in a school system they attended.
- Finances: Finances cannot be considered when determining the internship placement.
- Out of Area/State Placements: Out-of-area/out-of-state placements are rare and only granted in extenuating circumstances. To request an out-of-area/out-of/state placement, refer to the policy on the OSU Professional Education website. Note that the intern must appeal to the Field Experiences Committee for consideration, and, if granted, the intern bears all financial responsibility associated with placement, travel to on-campus meetings, and supervision and fees charged by a cooperating institution. Some programs facilitate international student teaching; check with your program for details.

NOTE: Check with your program area for information about any additional placement requirements for your certification area prior to completing your application.

Criteria for clinical practice placement for all Professional Education candidates:

1. Continued full admission to a program in the Professional Education unit (see "Retention in Professional Education" on the previous page);
2. A current overall grade-point average of at least 2.50 or higher as specified by the program;
3. A grade-point average of at least 2.50 or higher as specified by the program in courses listed on the current approved program for certification in the areas of professional core, major and college/departmental requirements. No grade lower than a "C" or a "P" in either of these areas;
4. Completion of all professional education course work that includes at least one course in social foundations, all early field experiences (60 clock hours minimum in diverse settings), exceptional learners, and human growth and development, with no grade lower than "C" or "P" in any of these courses. It is recommended that all professional sequence coursework be completed.
5. Successful completion of submission I and II requirements for the Professional Education Program portfolio. The exact submission dates for portfolio are set by the Office of Educator Support in collaboration with programs. Portfolios should contain the materials listed in the Portfolio Handbook (https://education.okstate.edu/departments-programs/stles/peu/portfolio.html) for the pre-internship submission and any additional items required by a specific program.
6. Must have taken and received a score on the appropriate subject area test (OSAT) for certification.
7. Must be recommended for clinical practice by program faculty.

Required Grades in Clinical Practice

A candidate must receive grades of "P" in all sections of clinical practice in order to be recommended for a teaching certificate. A candidate assigned a grade of "F" in any section of clinical practice will not qualify for a recommendation for any level of certification.

Placements in clinical practice are made based on program faculty recommendation, availability of a qualified cooperating teacher, school district and site preferences, availability of a university supervisor, and candidate request. Candidates do not contact schools to secure their own placements. Candidates will not be placed in a school where a relative(s) attends or is employed or where the candidate has developed personal relationships with teachers or administration. In addition, candidates will not be placed in the school system from which they graduated. Finances cannot be considered when determining the internship placement. As a general rule, interns are placed within an approximate 75-mile radius of Stillwater.

Out-of-Area/Out-of-State Placements

A candidate requesting an out-of-area/out-of-state placement due to extenuating circumstances or seeking an assignment that provides exceptional professional experiences that would not be afforded by a local placement must submit a written request and receive the approval of the degree program area coordinator, the unit head and the OES Field Experiences Committee (application available here: https://education.okstate.edu/departments-programs/professional-education-

unit/field-experiences.html (https://education.okstate.edu/departments-programs/office-of-educator-support/field-experiences.html)). Securing placements and supervision are the responsibility of the Office of Field Experiences and Clinical Practice and the program area coordinator.

Candidates granted an out-of-area/out-of-state placement must meet all clinical practice deadlines and requirements, including attendance of on-campus meetings and are required to pay the following fees:

1. All necessary and appropriate fees required in securing and finalizing the placement (e.g., such as reimbursement for cooperating teacher, supervisor, etc.). These fees are payable to the Office of Professional Education or designated office and/or out-of-state university at the beginning of the semester in which the placement is sought.
2. If a recommendation for certification is to be made by Oklahoma State University, the candidate is responsible for reimbursing visits performed by the cooperating institution. All other criteria pertaining to in-state clinical practice placements apply as previously stated.
3. OSU fees - A non-refundable administrative fee to cover time and extra work related to securing an out-of-area placement may be assessed when an approved request is submitted to the Clinical Practices office. The fee is due upon approval of the requested out-of-state or out-of-area placement.
4. Supervising teacher fees - The out-of-area/out-of-state supervising fee is determined by each supervisor, the out-of-area/out-of-state university, and the Field Experience and Clinical Practices Office and typically ranges from $400 to $800 to cover the expenses incurred to conduct the required observations and student teaching evaluations. Students are responsible for all costs related to their out-of-area/out-of-state supervision. The fee is to be paid to Office of Professional Education, who will then pay the supervisor.
5. Cooperating teacher fees - Whereas local cooperating teachers are compensated with tuition vouchers, an out-of-area/out-of-state cooperating teacher may not benefit from such compensation.
6. Additional fees - The local (out-of-area/out-of-state) cooperating university may require a fee for supervision for a student not enrolled in their university.

Exceptions to this policy are permitted for students who are enrolled in programs that have a specific out-of-area/out-of-state placement policy and for students who participate in special placements abroad.

Qualifications for consideration of out-of-state/out-of-area placement request:

1. Minimum cumulative 3.0 GPA and 3.0 GPA in content/certification area classes.
2. Successful interview with Program Area Coordinator presenting your request for an out-of-area placement.
3. Recommendation from Program Area faculty.
4. Approval of the PEC Field Experiences Committee.
5. Agreement from local (out-of-area/out-of-state) university to supervise the student teacher.
6. Availability and willingness of qualified university-affiliated supervisor to observe and evaluate student teacher.
7. A memorandum of understanding signed by the student, the Program Area Coordinator, and the OES or Program Representative must be on file prior to the request for placement being sent to the school district. The out-of-area/out-of-state university may require additional signed documentation.

The Internship Experience

The clinical practice intern is supported by their student teaching course instructor, the assigned OSU Supervisor and Mentor/Cooperating Teacher and the School Principal. Mentor Teachers and OSU Supervisors are asked to complete training in co-teaching prior to the experience, and training must be renewed at least every five years. If needed during the internship, the problem-solving process includes the support team above as well as Professional Education Unit representatives. The Memorandum of Understanding candidates sign at the application stage signifies their understanding of conduct to be followed during the internship. A breach of this agreement can result in removal from the internship.

Insurance

Neither school districts nor OSU insure candidates during the internship; candidates are responsible for carrying their own insurance of any type that may apply. Candidates are strongly encouraged to obtain professional liability insurance. Candidates are encouraged to consider student membership of the Oklahoma Aspiring Educators Association (the student membership for the Oklahoma Educators Association -- OEA) or the Professional Oklahoma Educators (POE), which typically both provide liability insurance to student members.

Outside Activities/Classes during the Clinical Practice Internship

The clinical practice internship experience is considered the beginning of your professional career and your energies should be directed toward making the most of your professional assignment. Therefore, taking coursework other than the internship courses is not advised during your internship. Employment, while not prohibited, can be a significant challenge for interns, particularly depending upon the number of hours and the flexibility (or lack thereof) of your schedule. However, we recognize that employment is a necessity in many cases. If you must have outside employment or have other significant commitments such as parenting, caring for an elderly or ill relative, etc., please be sure to speak with your Professional Education placement staff member to strategize ways to navigate these life/work demands *and* have a highly successful internship experience.

Appeals

By enrolling in Professional Education programs at Oklahoma State University, students accept the responsibility for complying with all applicable Professional Education Council policies and procedures that allow them to maintain good academic standing. If the student believes that the established policies of the Professional Education Council have not been fairly or consistently followed, he/she has the right to pursue an appeal.

Certification Examinations/Assessments for Oklahoma Educators

All candidates who graduate or are seeking recommendation for certification from a Professional Education program are required to complete the Certification Examinations for Oklahoma Educators before a license or area of certification can be issued. The examinations, which include subject area tests (OSAT) and a professional teaching exam (PPAT), are administered by the Evaluation Testing Systems (ETS) and Pearson for the Office of Educational Quality and Accountability (OEQA). Registration materials are available online at www.ceoe.nesinc.com (http://www.ceoe.nesinc.com). Information on the Praxis Performance

Assessment for Teachers (PPAT) is available here https://www.ets.org/ppat.html; candidates should take care that they do *not* register for the PPAT prior to their final internship semester, however.

Copies of the test competencies and study guides for the Oklahoma Teacher Certification Testing Program are available on the Pearson Education, Inc., website at www.ceoe.nesinc.com (http://www.ceoe.nesinc.com) and for the PPAT at https://www.ets.org/ppa/test-takers/teachers/prepare (https://www.ets.org/ppa/test-takers/teachers/prepare/).

Teacher candidates must successfully achieve an ACT composite score of 22 with the writing section included, *or* an SAT total score of 1120 including the following scores on the essay section: five (5) on Reading, four (4) on Analysis, and five (5) on Writing prior to admission to Professional Education; receive a score on the OSAT prior to student teaching placement, and pass the PPAT (during the final internship semester) prior to a certification. Note: If the OSAT was not passed prior to internship, it must also be passed prior to certification.

Recommendations for Certificate, or Additional Certification Areas

Application information for an Oklahoma certificate can be obtained in the Office of Educator Support, 325 Willard. Candidates seeking advisement concerning teacher certificates can be assisted by a Coordinator in the Office of Educator Support.

Effective May 31, 2001, Title 68 O.S. 238.1 requires all certificate holders be in compliance with Oklahoma state income tax laws before a teaching certificate can be obtained or renewed.

Effective November 1, 2001, Oklahoma Statute 70 O.S. 6-190 requires applicants for initial Oklahoma teacher certification to have a full federal fingerprint-based background clearance.

To receive Oklahoma State University's in-state or out-of-state certification "Recommendation" or "Verification" of program completion, the applicant must:

- be admitted and maintain admission to OSU's Office of Educator Support;
- complete the appropriate level of degree;
- meet the Foreign Language Proficiency Requirement;
- meet the Computer Proficiency Requirement;
- complete the required courses with the required grades and grade-point averages;
- pass the required Certification Examinations for Oklahoma Educators for Oklahoma certification and Praxis Performance Assessment for Teachers; and
- successfully complete all other required assessments such as the legal issues quiz and the trauma-informed pedagogy micro-credential, and
- complete the state's application for certification.

Unless the applicant has successfully completed all of the above, Oklahoma State University will not make a recommendation or verify program completion for an in-state or out-of-state certificate.

A candidate assigned the grade of "F" in any section of clinical practice will not qualify for a recommendation for a license or any level of certification. Requirements for certification and degrees are not necessarily the same thing. Candidates must meet all other certification requirements, including portfolio and foreign language proficiency if appropriate.

School of Community Health Sciences, Counseling and Counseling Psychology

DJ McMaughan, PhD—Interim School Head

The School of Community Health Sciences, Counseling and Counseling Psychology encompasses undergraduate and graduate academic programs in public health, mental health counseling, counseling psychology, school counseling and nursing. The School seeks to fulfill the traditional functions of teaching, research, outreach and public service that are consistent with the mission of Oklahoma State University. The mission is to foster the development, integration and application of knowledge, theory, skills and experiences to promote social, physical, psychological, educational and environmental health. Consistent with the goals of the University's Professional Education Council's Core Concepts and Goals Statement, faculty strives to demonstrate and perpetuate teaching based on theory and research-driven educational practices.

Course Prefixes

Courses that support counseling and counseling psychology are listed in the Catalog under the CPSY prefix. Courses in public health are listed under the HLTH prefix. Courses in nursing are listed under the NURS prefix.

Health

Xuewei Chen, PhD—Assistant Professor and Program Coordinator

The public health program prepares students to provide preventive services in a community, corporate, or clinical setting. Students can choose between two program options: (1) Exercise and Health; or (2) Community Health. Students culminate their degree requirements with a semester-long internship during their final semester. Upon completion of their undergraduate degree, many students continue graduate study in academic fields like Public Health, Physical Therapy, Athletic Training, Exercise Science, or Medicine. This degree track also prepares students for credentialing opportunities such as the Certified Health Education Specialist (CHES) exam and certifications offered through the American College of Sports Medicine (ACSM).

BSN Nursing

Alana Cluck, PhD, RN—Assistant Professor and Director

The four-year BSN prepares nurses to work in acute care facilities as well as community settings such as schools, health departments or home health. BSN graduates are prepared to pursue advanced practice degrees to become nurse practitioners, nurse anesthetists and clinical nurse leaders.

The RN to BSN program is an online baccalaureate degree program designed for individuals who have obtained Registered Nurse licensure and have successfully completed either an accredited associate's degree or diploma program. The program is designed for working adult learners and focuses on health and wellness.

Counseling and Counseling Psychology

Douglas Knutson, PhD—Associate Professor and Training Director

The counseling and counseling psychology program areas offer graduate programs in mental health counseling and school counseling leading to the MS degree in counseling as well as a PhD degree in counseling psychology.

Programs/Areas of Emphasis Degrees

Degrees offered through the School of Community Health Sciences, Counseling and Counseling Psychology programs include Bachelor of Science (BS), Master of Science (MS) and Doctor of Philosophy (PhD).

Counseling/Counseling Psychology

- Mental Health Counseling - MS
- School Counseling - MS
- Counseling Psychology - PhD

Community Health Sciences

- Nursing - BSN
- Nursing - RN to BSN
- Public Health - BS
- Community Health Sciences - PhD

Health and Human Performance

- Health Education and Promotion - MS

Courses

CPSY 1113 Career: Journey of A Lifetime
Description: Assists students in exploring career options through increased understanding of self and expanded knowledge of occupational information. Includes a study of the decision-making process and a look at the present and future changing world of work. Previously offered as CPSY 1112 and ABSE 1112.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3003 Introduction to Counseling and Related Professions
Description: Professions related to counseling such as career counseling, community mental health counseling, school counseling, and substance abuse counseling are examined. Students will also learn about diversity and legal and ethical issues within counseling professions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3013 Introduction to Helping Skills
Prerequisites: Upper division standing and successful completion of CPSY 3003.
Description: This course serves as a general overview of applied helping skills for those who are considering the counseling profession or related professions as a career. Students will learn major counseling theories and will practice basic helping skills. Instructional methods will include lecture, small-group interaction, discussion, and role plays.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3023 Mental Health in Schools and the Community
Description: An introduction to mental health issues in school and community settings for education or other helping profession majors. Students will learn about topics such as signs of depression; substance abuse; anxiety, including test anxiety; crisis prevention and response; suicidality and violence in schools; bullying; domestic violence; and cyber-citizenship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 3320 Seminar in Counseling Psychology
Description: In-depth exploration of contemporary topics in counseling psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 4013 Field Experience in Counseling
Prerequisites: CPSY 3003 and CPSY 3013.
Description: A senior capstone/field experience for students considering graduate work in counseling psychology, school counseling, community counseling, or a counseling-related profession. The field experience provides students with the opportunity to apply the skills, knowledge, and techniques in an applied setting. Students can expect to gain an understanding of the philosophy, organization, and tasks of their field site to assist in guiding their decision for a future career path.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 4443 Cultural Diversity in Professional Life (D)
Description: Knowledge, awareness and skills regarding cultural diversity in one's professional life. Previously offered as EDUC 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

CPSY 5000 Master's Thesis
Description: Consent of advisory committee chairperson. Report of research conducted by a student in the master's program in counseling. Credit given and grade assigned upon completion and acceptance of the thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5173 Gerontological Counseling
Description: An examination of mental health treatment modalities and approaches to counseling with older adults. An experiential component is included. Previously offered as ABSE 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5320 Seminar in Counseling Psychology
Description: Graduate standing. In-depth exploration of contemporary topics in counseling psychology. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5323 Relational Cultural Theory
Description: The goal of this course is to gain an understanding of the theoretical foundation of the Relational Cultural Model of psychotherapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5413 Child and Adolescent Counseling
Description: Counseling theories and techniques for working with children, adolescents, and their parents in individual and group counseling and consulting. Laboratory portion translates theory to practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5423 Crisis Intervention, Disaster Mental Health, and Trauma Counseling
Description: Prepares counselors, educators, and administrators to address the crisis/disaster situations which may arise in schools, colleges, and community mental health settings. Preparation includes what sort of events constitute a crisis, prevention efforts, preparedness, and crisis/disaster intervention strategies. Basics of trauma, and trauma counseling for counselors working in individual and group settings are covered for schools and community mental health settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5433 Expressive Arts in Counseling
Description: Provides graduate students in counseling with an opportunity to learn the history, theoretical foundations, and practice of expressive arts in counseling. This course will be held in a seminar format with an experiential component and an emphasis on class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5453 Vocational and Career Information
Description: Local, state and national sources of occupational information about jobs and sociological factors related to career planning and worker effectiveness. Previously offered as ABSE 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5473 Basic Counseling Skills
Prerequisites: Graduate standing.
Description: Basic attending and relationship building skills needed to develop an effective therapeutic relationship, establish counseling goals, and evaluate client outcomes. Previously offered as ABSE 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5483 Mental Health Counseling
Description: Base of knowledge about the counseling profession, its history, philosophy, and identity. The roles and responsibilities of the professional counselor as therapist and advocate in working competently with culturally diverse populations in a socially and culturally diverse society.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5493 Professional and Ethical Issues in Counseling
Prerequisites: Admission to community counseling, elementary or secondary school counseling graduate program or consent of instructor.
Description: Principles and issues of professionalism and ethics. Seminar format with special emphasis on student's thorough preparation for, and active participation in, class discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5503 Multicultural Counseling
Description: Emphasis on effective communication skills in cross-cultural counseling or helping relationships and the integration of theoretical knowledge with experimental learning. Psycho-social factors, life styles, etc. of various cultural and ethnic groups and their influence on the helping relationship. Previously offered as ABSE 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5513 Comprehensive School Counseling Programs
Description: Foundations of school counseling focusing on the knowledge and skills required to develop, implement, coordinate, and manage a comprehensive, developmental school counseling program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5523 Assessment in Counseling
Description: An introductory study of the psychological assessments most widely used in the fields of school and clinical counseling. Previously offered as ABSE 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5533 Foundations of Play Therapy
Prerequisites: CPSY 5473.
Description: Overview of essential play therapy elements and principles, including history, theories and techniques, and modalities. Emphasis on observation and application of play therapy skills and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5543 Career Development Theories
Description: Historical and contemporary viewpoints advanced by Ginsberg, Super, Holland, Roe, etc. Counselors are assisted in developing the theoretical and applied basis for developing school-based career education programs and for assisting individuals in career planning. Previously offered as ABSE 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5553 Theories of Counseling
Description: Exploration of the foundations of major individual counseling theoretical approaches with opportunities for personal reflection and application. Previously offered as ABSE 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5563 Conceptualization and Diagnosis in Counseling
Description: Conceptualization and diagnosis through a study of principles of understanding dysfunction in human behavior or social disorganization and provides an in-depth knowledge of use of the DSM classification system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5583 Group Process
Description: Group dynamics, theory and techniques applicable to working with people of all ages in various school and non-school settings. Group member competencies are stressed during the laboratory period. Previously offered as ABSE 5583.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Graduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Health Sci, Couns, Couns Psych

CPSY 5593 Counseling Practicum
Prerequisites: Grade of "B" or better in CPSY 5473, CPSY 5493, CPSY 5553, CPSY 5563, and CPSY 5583; admission to program or instructor consent.
Description: Supervised experience in human interaction processes of counseling and consulting with the major goal of facilitating positive growth processes through individual supervision. May be conducted in a variety of settings with a wide range of developmental levels. Previously offered as ABSE 5590.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 5663 Counseling And Sexuality
Prerequisites: Permission of instructor.
Description: Current trends in counseling clients with sexual problems, as well as clients with varying sexual orientations and identities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5673 Substance Abuse Counseling
Prerequisites: Permission of instructor.
Description: Current therapeutic trends, strategies, and modalities used in the treatment of addictions, as well as relapse prevention strategies and treatment of special populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5683 Internship In Counseling I
Prerequisites: Grade of "B" or better in CPSY 5593 and admission to counseling program.
Description: Supervised experience working and studying in a counseling agency or setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5693 Internship In Counseling II
Prerequisites: Grade of "B" or better in CPSY 5683 and admission to counseling program.
Description: Supervised experience working and studying in a counseling agency or setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5720 Workshop
Description: Professional workshops on various topics. Designed to meet unique or special needs of professionals in various mental health fields. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5773 Substance Abuse Counseling Theories
Description: Introduction to contemporary theories of addiction for advanced counseling, counseling psychology and related professional graduate students and for practicing mental health professionals. Content includes multicultural case studies utilizing motivational interviewing, moral theory, developmental theory, cognitive behavioral theories, attachment theory, and sociological theory. The focus is understanding theories related to addiction and relapse prevention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5783 Substance Abuse Psychopharmacology
Description: This course covers the major areas of psychopharmacology, including the basic principles of pharmacology, neuroanatomy and neurotransmitter systems, and the properties, actions, and effects of different types of drugs. Students will learn how drugs alter psychological processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 5793 Substance Abuse Counseling Internship
Description: A 300-hour field experience allows students to develop specific skills and knowledge surrounding the practice of substance abuse counseling under the direction of a clinical supervisor. Students will be able to apply learning theory and techniques in counseling situations; develop case management and resource allocation skills; determine appropriate assessments of clients; network with supervisors, colleagues, and professionals from a variety of agencies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the doctoral program in counseling psychology. Credit given and grade assigned upon completion and acceptance of the doctoral dissertation. Offered for variable credit, 1-9 credit hours, maximum of 25 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6053 Ethical and Legal Issues in Professional Psychology
Prerequisites: Consent of instructor.
Description: Ethical and legal standards applied to the professional practice of psychology. Previously offered as CPSY 6503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6083 Principles of Counseling Psychology
Prerequisites: Admission to the doctoral program in counseling psychology.
Description: Development, theoretical foundations and applications of therapeutic models of counseling and psychology. Previously offered as ABSE 6083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6123 Adult Personality Assessment
Prerequisites: Admission to counseling, school, or clinical psychology program.
Description: Administration and interpretation of adult personality assessment instruments such as Rorschach, TAT and DAP. Previously offered as ABSE 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6153 Personality Theories
Prerequisites: Graduate standing.
Description: An in-depth analysis of personality theories and personality disorders. Previously offered as ABSE 6153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6163 Advanced Counseling Theories and Interventions
Prerequisites: Grade of "B" or better in CPSY 5553 (Theories) or other Master's level Theories course.
Description: Continued exploration of major individual counseling theoretical approaches with a particular focus on third-wave, experiential approaches. Provides intensive practice in both technical and conceptual skills with emphasis on self- awareness, case conceptualization, and racial-cultural considerations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6223 Beck's Cognitive Therapy
Prerequisites: Graduate standing in counseling, counseling psychology, school psychology, or clinical psychology; or consent of instructor.
Description: The theory and practice of Aaron T. Beck's cognitive therapy approach. Cognitive restructuring, problem-solving, imagery work, and cognitive case conceptualization skills to help clients with a variety of presenting problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6310 Advanced Practicum and Supervision
Prerequisites: Admission to counseling psychology program.
Description: For prospective counseling psychologists, counselor educators and supervisors, and practicing counselors. Supervised assistance in development of counseling, consulting, and supervising competencies. Previously offered as ABSE 6310. Offered for variable credit, 3-12 credit hours, maximum of 12 credit hours.
Credit hours: 3-12
Contact hours: Contact: 3-12 Other: 3-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6313 Advanced Group Interventions
Prerequisites: Admission to counseling psychology program or consent of instructor.
Description: Discussion and exploration of various aspects of group development and treatment. Theory and application of theory. Various factors associated with group psychotherapy cohesion, dynamics and screening. Course previously offered as ABSE 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6323 Psychological Consultation
Prerequisites: Admission to graduate program in the SAHEP or psychology program.
Description: Models and strategies for the delivery of special services in the schools and other agencies that focus on serving the mental health needs of children, adolescents and adults. The use of consultation as a problem-solving alternative to the assessment/label approach. Students can receive credit in only one of the courses. Same course as EPSY 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6413 Counseling Psychology Practicum I
Prerequisites: Admission to the doctoral program in counseling psychology.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Establishing therapeutic conditions conducive to growth and change.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6423 Counseling Psychology Practicum II
Prerequisites: Grade of "B" or better in CPSY 6413.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Integrating theory and research into the practice of counseling psychology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6433 Counseling Psychology Practicum III
Prerequisites: Grade of "B" or better in CPSY 6423.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Integrating theory and psychological assessment skills into the practice of counseling psychology.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6443 Counseling Psychology Practicum IV
Prerequisites: Grade of "B" or better in CPSY 6433.
Description: For prospective counseling psychologists. Individual and group supervision and didactic experiences to facilitate the development of counseling psychology competencies with clients at practicum sites. Building integrating consultation skills into the practice of counseling psychology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6543 Clinical Supervision
Prerequisites: Admission to clinical, counseling or school psychology doctoral program, or consent of instructor.
Description: Building the doctoral psychology student's knowledge base in theory and research of clinical supervision in psychology, and development and refinement of the student's supervision skills. Current theory and research in supervision, including a practical component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6553 Advanced Practice in Marital and Family Treatment
Prerequisites: Admission to counseling, school or clinical psychology program.
Description: Advanced methods in assessment, diagnosis, and treatment of marital and family problems. Skill development, professionalism, ethics and case management. Dynamics of co-therapy and conjoint treatment. Case consultation format. Course previously offered as ABSE 6553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

CPSY 6560 Advanced Internship in Counseling
Description: Admission to the doctoral program in psychology. Designed to facilitate counseling effectiveness and to set the stage for a productive life of professional practice. Previously offered as ABSE 6560. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

CPSY 6850 Directed Reading
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 2213 Introduction to Public Health
Description: Introduction to the field of public health focusing on health principles, theories, career opportunities and a field experience. Previously offered as HHP 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 2323 Drugs and Society
Description: Impact of recreational use of drugs on society. Topics will include stimulant, depressant, and hallucinogenic recreational drugs, ergogenic substances and current research regarding addiction. Particular focus will be given to current trends of substance use and abuse. Cannot be substituted for HLTH 3913. Previously offered as HHP 2323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 2603 Total Wellness (S)
Description: Overview of individual, interpersonal, and sociocultural issues that have an impact on health. Behavioral decision-making, social relations, cultural diversity and environmental sensitivity. Previously offered as HHP 2603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Society & Human Behavior

HLTH 3010 Health Workshop
Description: Concentrated study of special topic(s) related to health not currently covered in the available undergraduate curriculum. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 3113 Health Issues in Diverse Populations (D)
Description: The purpose of the course is to introduce concepts of health disparities, and equity for diverse populations across a range of health topics. The course will also introduce the students to community based solutions to health issues for diverse populations in an effort to promote inclusivity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

HLTH 3201 Health in Special Populations (D)
Description: Exploration and analysis of the influence of variables like race, ethnicity, gender, sexual orientation, and/or disability on various health outcomes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity

HLTH 3211 International Comparative Health (G)
Description: Global comparisons of disease, immunity and infection. Includes an exploration of the complex interaction between geopolitical systems, resource access, conflict zones, inequality and health from an international perspective.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: International Dimension

HLTH 3343 Public Health Policy
Description: Public health policy from a health in all policies perspective and a systems-thinking framework for understanding the social and political aspects in the United States. Systematic thinking about state and national public health policy and developing skills for policy health advocacy. Focus on key features of the current U.S. health care and political system, and political and socio-economic concepts central to health policy debates. Will provide students with practice in critically evaluating pressing public health policy problems. Previously offered as HLTH 3351.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3511 Peer Health Education I
Prerequisites: Approval of instructor.
Description: Comprehensive analysis and application of the theory and practice of peer education principles, designed to educate and provide experiences in preparation for planning and/or participation in integral university or community peer education programs.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3512 Peer Health Education II
Prerequisites: Successful completion of HHP 3511 and approval of instructor.
Description: Comprehensive analysis and application of the theory and practice of peer education principles, designed to education and provide experiences in preparation for planning and/or participation in integral university or community peer education programs.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 3603 Understanding HIV (DS)
Description: Examines the HIV global epidemic from historical, political, epidemiological, biological, medical, psychological, legal, and ethical perspectives. Previously offered as HHP 3603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity, Society & Human Behavior

HLTH 3613 Community Health
Description: A survey of issues impacting the health of populations from a community health perspective. Previously offered as HHP 3613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3623 School Health Programs
Prerequisites: HLTH 2603.
Description: The identity and relationships of school health instruction, services and environments. Previously offered as HHP 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3643 Health Behavior Theory
Description: Survey of biopsychosocial behavioral models to determine basis for health risk behaviors, with emphasis on determinants of health/risk behavior and exploring health behavior theories across age, sex, ethnicity, culture and socio-economic status. Same course as HHP 4503. Previously offered as HHP 3643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3673 Physical Activity and Public Health
Description: The course helps students gain an appreciation for the importance of integration of physical activity and public health. The techniques used to measure physical activity, the effects of physical activity on health, and strategies for physical activity promotion are the main content areas of this course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3723 Principles of Epidemiology
Description: Survey of epidemiological principles as they relate to the planning of both community and consumer-focused health promotion and disease prevention programs. Same course as HHP 4633. Previously offered as HHP 3723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3733 Disability and Health
Description: The course explores the many conceptions of disability in the United States and the psychosocial, health, and wellness impacts on deaf and disabled communities. Students will analyze disparities in deaf and disabled communities using a social determinants of health model, with an emphasis on public health, healthcare, education, and political systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3913 Substance Use & Public Health
Description: Introduction to the field of health education and health promotion focusing on health principles, theories, career opportunities, and a field experience. Same course as HHP 4033. Previously offered as HHP 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 3923 Social Determinants of Health and Public Health Equity
Description: This course focuses on the social and economic conditions under which people live that affect their health. We will explore how social determinants of health such as health care cost, access, and quality, economic stability, education access and quality, neighborhood and built environment, and social and community context influence the health of populations. We will also examine the role of public policy in shaping health outcomes for communities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4010 Directed Study in Health
Description: Course is an independent study of health issues and trends through readings, research, and/or analysis. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4233 Health and Sexuality (DS)
Description: The study of human sexuality as it relates to the health and well-being of individuals in the community, college, school or worksite settings. Previously offered as HHP 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych
General Education and other Course Attributes: Diversity, Society & Human Behavior

HLTH 4313 Public Health Communication
Description: Provides a broad overview and deep exploration into the evolving body of relevant health communication research, theory, and practice, examining the powerful influences of communication on the promotion of public health. Examines the evolving use of new digital communication technologies in health communication interventions and the implications of these new technologies for designing future health communication campaigns. Students will have a broad understanding of major areas of study in health communication and specialized knowledge in an area of interest.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4533 Psychosocial Issues in Public Health
Description: Psychosocial issues as they relate to the practice of public health. Personal and professional applications of the course material will be emphasized. Previously offered as HHP 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4770 Internship in Public Health: Exercise and Health (Athletic Training)
Prerequisites: Last semester; and Senior standing with cumulative 2.75 GPA; current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students going in to the Master of Athletic Training 3/2 Program. Offered on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4783 Public Health and Aging
Description: An in-depth study of physiological aspects, special health concerns, chronic illnesses and services as applied to gerontology. Previously offered as HHP 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4880 Internship in Public Health: Public Health
Prerequisites: Last semester and Senior standing with cumulative GPA 2.75 and current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students in the Public Health option. Previously offered as HHP 4880. Offered on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 4903 Pre-Internship Seminar
Prerequisites: Last semester prior to internship and consent of instructor.
Description: Capstone course for the public health program. Preparation for the health internship experience. Previously offered as HHP and HLTH 4902.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4973 Program Design in Public Health
Description: A survey of program design principles, including theoretical foundations, planning, marketing, delivering and evaluating. Previously offered as HHP 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 4990 Internship in Public Health: Exercise and Health
Prerequisites: Last semester and senior standing with cumulative GPA 2.75 and current CPR and First Aid Certification.
Description: Supervised field work experience in public health or health-related settings for students in the Exercise and Health option. Previously offered as HHP 4990. Graded on a pass/fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5000 Thesis Research
Description: Independent research required of candidates for master's degree. Credit awarded upon completion of thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5010 Health Promotion Seminar
Description: Selected topics from the health promotion profession not covered in other courses. Presentation and critique of research proposals and results. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5020 Health Promotion Workshop
Description: Workshop in selected areas of health promotion. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5030 Field Experiences in Health Promotion
Description: Individual investigations and analysis of issues in health promotion. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 5113 Psychological Aspects of Health
Description: Examination of the interactions of biological, psychological, social, and spiritual factors as they impact human health and disease. Previously offered as HHP 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5133 Environmental Health
Description: Examination of health issues, etiology of disease, and control and prevention of major environmental health problems in industrialized and developing countries. Same course as MPH 5133. Previously offered as HHP 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5233 Sexuality and Health
Description: The study of human sexuality as it relates to the health and well-being of individuals in the community, college, school, and worksite settings. Particular emphasis will be on examining, developing, or modifying new programming related to sexuality and health. Previously offered as HHP 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5323 General Epidemiology
Description: Examination of epidemiological theory and its methodological application to public health. Same course as MPH 5323. Previously offered as HHP 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5453 Cultural Issues In Health
Description: Examination of ways in which culture affects health and health care including perceptions of health, disease, treatments, and the values associated with these factors. The need for cultural sensitivity in health care is emphasized. Same course as MPH 5453. Previously offered as HHP 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5653 Foundations of Public Health Education and Promotion
Description: Exploration of key concepts, philosophies, ethical principles, historical events, theories/models, and responsibilities and competencies of public health promotion. Same course as MPH 5653. Previously offered as HHP 5653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5683 Health Behavior Theory and Practice for Public Health
Description: Theories and concepts of health behavior change and exploration of the application of theories to public health programs. Same course as MPH 5683. Previously offered as HHP 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5973 Designing Public Health Programs
Description: Application of program design principles, including needs assessment, theoretical application, program planning and marketing. Same course as MPH 5973. Previously offered as HHP 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 5983 Implementation and Evaluation of Public Health Programs
Description: Application of program implementation and evaluation, including evaluation design. Same course as MPH 5983. Previously offered as HHP 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

HLTH 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-15 credit hours, maximum of 27 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 6010 Independent Study in Health Promotion
Description: Supervised readings, research or independent study of trends and issues related to the areas of health promotion. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

HLTH 6020 Research Colloquium in Health Promotion
Description: Topics-based graduate colloquium that explores selected topics and research in the areas of health promotion. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

NURS 2011 Medical Terminology in Nursing
Prerequisites: Accepted as BSN Major and MICR 2123.
Description: This course introduces the beginning student to the study of medical terminology and vocabulary used in the healthcare field.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3000 Registered Nursing Experience/License
Prerequisites: Associate Degree of Diploma in Nursing plus RN license.
Description: Credit to be determined by a successful passing of the NCLEX (National Council Licensing Exam) and holding a current active Registered Nursing License from a state board of nursing. Offered for variable credit, 1-30 credit hours, maximum of 30 credit hours.
Credit hours: 1-30
Contact hours: Contact: 1-30 Other: 1-30
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Health Sci, Couns, Couns Psych

NURS 3003 Pharmacology in Nursing
Prerequisites: Admittance to Nursing Program.
Description: Presents core drug knowledge, pharmacotherapeutics, pharmacodynamics and pharmacokinetics. Emphasizes dosage calculation and drug classifications by categories affecting various body systems and disease states.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3013 Theoretical and Conceptual Foundations of Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Introduction to concepts and theories pertinent to nursing practice in a variety of healthcare environments. Theories are addressed as frameworks for practice. Historical, legal, cultural, economic, and social factors influencing health care are analyzed. Philosophical perspectives related to professional nursing are considered. Strategies are discussed when analyzing and managing ethical dilemmas and the application of these strategies to health and wellness promotion will be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3018 Foundations of Nursing
Prerequisites: Full admittance into the nursing program.
Description: Examines concepts of physiological integrity, psychosocial integrity, safe, effective care environments, and health promotion/maintenance. Focuses on beginning competencies with an emphasis on health assessment, interpersonal communication, safety, documentation, and selected basic nursing interventions required for clients with acute and chronic health problems.
Credit hours: 8
Contact hours: Lecture: 5 Lab: 9 Contact: 14
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3025 Health Assessment, Wellness and Community Health
Prerequisites: Associate degree or diploma in nursing plus RN license.
Description: Health assessment and its relationship to the prevention and early detection of disease across the life span. Health strategies for communities and diverse populations with social, cultural, environmental, and economic dimensions will be examined. Application of concepts from nursing theorists, core competencies for interprofessional collaborative practice, and the wellness model. Health and wellness promotion in the community will be examined through a clinical component.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3033 Cultural Considerations in Health Care
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Improving cultural awareness, cultural sensitivity and cultural competency among health care professionals. Expands the understanding of cultural diversity in relation to health care beliefs and practices and prepares students to better implement and evaluate individualized plans to improve health care delivery in diverse settings and population groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3043 Global and Public Health
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: An introduction of the main concepts of the global health field and explores the impact of professional nursing on the health and well-being of individuals. Overview of principles and goals related to global health, global health issues, burden of disease and interprofessional collaboration to improve health. Students utilize critical reasoning and evidence-based practices. Previously offered as NURS 3034.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3083 Nursing Care of Older Adults
Prerequisites: Admission into RN to BSN program
Description: Examines the effects of aging on older adults, including physiological, psychological, social, and end of life aspects. The course focuses on methods of health promotion, improving quality of life, and access to quality care.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3102 Nursing Pharmacology II
Prerequisites: NURS 3018 Foundations of Nursing, NURS 3013 or NURS 3213 Theoretical and Conceptual Foundations of Nursing, NURS 3002 Pharmacology in Nursing I, and Full admission to NURS program
Description: This course presents advanced drug knowledge, pharmacotherapeutics, pharmacodynamics, and pharmacokinetics with special attention to polypharmacy.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3103 Pharmacology in Nursing II
Prerequisites: NURS 3018 and NURS 3003 and NURS 3013
Description: Presents advanced drug knowledge, pharmacotherapeutics, pharmacodynamics, and pharmacokinetics with special attention to polypharmacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3115 Maternal and Pediatric Nursing
Prerequisites: NURS 3013 or NURS 3213, NURS 3003, NURS 3118, and Full admission to NURS Program
Description: Explores concepts of nursing theory for the holistic care of child-bearing women, newborns, and children. This course includes clinical rotations and laboratory/simulation experiences in maternal/child and pediatric settings.
Credit hours: 5
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

NURS 3118 Adult Health Nursing I
Prerequisites: NURS 3018 and BIOL 3214 and NSCI 2013.
Description: Provides concept based nursing theory for holistic care of adult clients with health alterations. Includes physical and mental wellness, diagnostic and therapeutic nursing interventions, emphasizing the nursing process and critical thinking to manage acute and chronic health alterations. Provides opportunities to practice nursing skills in simulated and actual medial surgical and mental health clinical settings.
Credit hours: 8
Contact hours: Lecture: 5 Lab: 9 Contact: 14
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 3183 Nursing Care of Aging Populations
Prerequisites: Full admission to NURS program.
Description: Explores the physiological, psychological, and social aspects of aging, emphasizing the unique healthcare needs of older adults. The course covers common health related issues in aging adults and discusses strategies for promoting healthy aging, improving quality of life, and providing palliative and end of life care for older adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3213 Theoretical and Conceptual Frameworks of Nursing
Prerequisites: Full Admission to the NURS program
Description: Examines nursing theories and their application to nursing practice, education, and research. Students will examine the evolution of nursing theory, the critical analysis of various theoretical frameworks, and their relevance to contemporary nursing practice. Emphasis will be placed on understanding the relationship between theory, research, and evidence-based practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 3223 Global and Cultural Competency in Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program; and NURS 3018 and NURS 3013 and NURS 3003.
Description: Expands understanding of cultural diversity and global concepts in relation to health care beliefs and practices. Prepares students to improve healthcare delivery in globally diverse settings and population groups. Previously offered as NURS 3224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4013 Healthcare Policy, Finance and Regulatory Environments
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, NURS 3034.
Description: Provides information, perspectives and strategies that nurses need to develop the capacity and skills to influence reform, quality of care and access to health. Active learning strategies include individual and group learning experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4023 Trends and Issues in Nursing
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: An overview of the evolution of nursing as a profession while introducing students to their role as scholarly practitioners. Examination of changes in the U.S. healthcare system, the importance of information technology and measures that promote quality, safety and improved outcomes in patient care as well as issues and trends in contemporary practice, the importance of interprofessional collaboration and the influence of socioeconomic, ethical, legal and professional values.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4034 Leadership and Management in Nursing
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, NURS 3043, all with a minimum grade of "C".
Description: Examination of selected leadership and management theories and processes critical to a work environment that is efficient, effective, and committed to quality nursing care. Emphasis on the key skills employed by successful nurse leaders/managers. Utilizes a clinical component to prepare graduates for an entry position into the professional nurse manager role. Previously offered as NURS 4033.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4043 Nursing Research and Evidenced-Based Practice
Prerequisites: Admittance into the NURS program or RN to BSN program
Description: Basic understanding of the research process and its application to nursing and evidence-based practice. Includes appraisal of literature, research design, and statistical methods and analysis. Qualitative, quantitative, and mixed methodology research, data summarization, and principles of measurement will be reviewed. Particular emphasis on ethics and the rights and responsibilities toward human subjects are examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4050 RN-BSN Capstone
Prerequisites: Associate degree or diploma in nursing plus RN license. NURS 3013, NURS 3025, NURS 3033, and NURS 3043, all with a minimum grade of "C". May take concurrently with NURS 4023, NURS 4034 and NURS 4043..
Description: Implementation of knowledge from the RN-BSN curriculum and application of evidence-based practice while utilizing inter-professional collaboration, leadership, management, ethical decision making, healthcare policy at the local, state and global levels, informatics, health, wellness and research. Engagement in community activities promoting health and wellness and the advancement of the role of the baccalaureate prepared registered nurse. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4054 Nursing Capstone and Transition to Practice
Prerequisites: NURS 4116 and NURS 4043 and HLTH 4783.
Description: As a capstone course, students apply knowledge from the BSN curriculum and engage in activities utilizing evidence-based practice; integrate healthcare policy at the local, state and national levels. Highlights the influence of professional values on the role of the professional nurse. Application of critical thinking, communication, and therapeutic nursing interventions to demonstrate readiness for the NCLEX-RN.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4113 Nursing Care of the Family and Community
Prerequisites: NURS 3118 and Full admission to the NURS program
Description: Explores and applies the role of the nurse in the provision of holistic care of families, communities, and vulnerable populations. Course includes clinical rotations and simulations focusing on disease management and wellness promotion to vulnerable populations in community settings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

NURS 4116 Adult Health Nursing II
Prerequisites: NURS 3118
Description: Provides concept-based nursing theory for holistic care of adult clients with critical health alterations. Clinical focuses on providing high acuity nursing care in critical care clinical settings.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4122 Trends and Topics in Nursing
Prerequisites: NURS 3013 or NURS 3213 Theoretical and Conceptual Foundations of Nursing and full admission to the NURS program
Description: Focuses on current and emerging topics, challenges, and innovations that directly affect the professional nurse and the healthcare environment. Explores ethical considerations, professional development, and the future direction of nursing in a rapidly changing healthcare environment.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4136 Essentials of Nursing Leadership
Prerequisites: NURS 4116 and NURS 4043 and HLTH 4783.
Description: Examines selected theories and processes critical to a work environment that are efficient, effective, and committed to quality nursing care. Utilizes a clinical component to prepare graduates for an entry position into the professional nurse leader/manager role.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4143 Research and Evidence-Based Practice in Nursing
Prerequisites: NURS 3013 or NURS 3213, and full admission to the NURS program
Description: Introduces the principles and methods of research in nursing. Focuses on the development of critical thinking and analytical skills necessary to evaluate and apply research findings to clinical practice. Students will explore various research designs, methodologies, and statistical analyses used in nursing research. The course also covers the ethical considerations in conducting research and the role of evidence-based practice in improving patient outcomes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4216 Family and Community Health Nursing
Prerequisites: NURS 3118 and NURS 4043 and NURS 3223 and NURS 3102
Description: Provides concepts of nursing theory for the holistic care of child-bearing women, newborns, children, older adults, families and the communities in which they live. Clinical focuses on health and wellness promotion, providing nursing care to vulnerable populations in a variety of settings. Previously offered as NURS 3218.
Credit hours: 6
Contact hours: Lecture: 3 Lab: 9 Contact: 12
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Health Sci, Couns, Couns Psych

NURS 4242 Nursing Informatics
Prerequisites: NURS 4116 and NURS 4216 and NURS 4023
Description: Provides an overview of electronic information related to health sciences. Focuses on the use of technology-based health applications to support clinical, administrative, and educational decision-making.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4243 Nursing Informatics
Prerequisites: NURS 4116 Adult Health Nursing II, NURS 4216 Family and Community Health Nursing, and NURS 4023 Trends and Issues in Nursing
Description: Provides an overview of nursing informatics, focusing on the integration of nursing science, information science, and computer science to manage and communicate data, information, and knowledge in nursing practice. Students will learn about the role of informatics in improving patient care outcomes, enhancing clinical decision-making, and promoting efficient healthcare delivery.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Health Sci, Couns, Couns Psych

NURS 4333 Mental Health Nursing
Prerequisites: NURS 3018, NURS 3002, and Full admission to the NURS program
Description: Mental Health Nursing examines and applies concepts of nursing theory for holistic care of clients with mental health alterations. This course includes opportunities to provide nursing care in simulated experiences and clinical settings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Health Sci, Couns, Couns Psych

Undergraduate Programs

- Nursing, BSN (p. 2092)
- Nursing: RN to BSN, BS (p. 2094)
- Public Health: Community Health, BS (p. 2100)
- Public Health: Exercise and Health, BS (p. 2102)

Graduate Programs

The community health sciences program area offers graduate programs in Health and Human Performance, option in Health Promotion (MS degree) and Community Health Sciences (PhD degree). The counseling and counseling psychology program area offers graduate programs in Substance Abuse Counseling (Graduate Certificate), mental health counseling and school counseling leading to the MS degree in counseling as well as Counseling Psychology (PhD degree).

Community Health Sciences

Ho Han, PhD—Associate Professor and Program Coordinator

PhD Program

The program prepares excellent, advanced-level community health scholars and practitioners who increase the quality of life for Oklahomans and beyond by utilizing evidence-based practices, social justice frameworks, and cultural competence. Graduates may serve in positions found within K–12 schools, higher education institutions, medical facilities, governmental agencies, non-profit organizations, and corporations. The program helps students to develop experiences that will allow them to meet career needs and goals through interactive and collaborative research, teaching experience, university and professional service, and outreach and extension.

Health and Human Performance, option in Health Promotion MS

Ho Han, PhD—Associate Professor and Program Coordinator

MS Program

The program prepares students to address lifestyle and health issues across community settings using a behavioral social science lens. These lifestyle and health issues may include nutrition, physical activity, substance abuse, tobacco use, chronic disease, HIV/STI's, diabetes and pregnancy. While our students enter our program from a variety of academic backgrounds such as public health; psychology; sociology; marketing; exercise physiology; political science; and biology, they all graduate with the same goal of enabling people to increase control over, and to improve, their health.

Counseling Psychology

Douglas Knutson, PhD—Associate Professor and Training Director

PhD Program

This program is accredited by the American Psychological Association (APA) and is based on the scientist-practitioner model of training. The program is designed to prepare students for counseling, consulting, teaching and research roles in various settings such as university counseling centers, academic departments, hospitals, public service settings such as prisons and Veterans Administration Medical Centers, business settings, mental health clinics and community settings. Students are required to follow a specified sequence of study in which academic coursework and practicum experiences are integrated. Students must also complete one year of full-time internship. Application materials for the counseling psychology program are due by December 1st for the following fall enrollment.

Counseling MS

Lisa Beijan, PhD—Assistant Professor and Program Coordinator

Mental Health Counseling

This program is intended for individuals who wish to serve as professional counselors in a variety of human service and community mental health agencies. Students may choose elective courses in selected areas of specification such as youth counseling, substance abuse counseling and mental health counseling. The program is designed to meet the academic requirement for licensure as a professional counselor in Oklahoma and the standards set by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) for national accreditation. Application materials for this program are due January 25th for the following summer/fall enrollment.

School Counseling

This program prepares students to work as counselors in public schools, serving students, teachers and parents. The role of the school counselor is to coordinate the comprehensive school counseling program, focusing on the educational, career, personal and social development of students. Within this comprehensive school counseling program, school counselors provide counseling, consulting, coordinating and appraisal services. The school counseling program is designed to meet the certification requirements for the State of Oklahoma as well as requirements of the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Application materials for this program are due January 25th for the following summer/fall enrollment.

Substance Abuse Counseling Certificate

Valerie McGaha, PhD—Associate Professor

Certificate Program

This graduate certificate is designed for graduate students and working professionals from a range of mental health education backgrounds who wish to provide comprehensive mental health and substance abuse treatment through inpatient and outpatient care. The certificate helps meet an overwhelming national need within the mental health field by equipping future and current professionals with the specific tools to address and treat substance abuse and addictions. Those who complete this certificate may also pursue the Licensed Alcohol and Drug Counselor (LADC) credential.

Certificates

- Pre-Nursing, UCRT (p. 2097)
- Public Health, UCRT (p. 2099)

Minors

- Pre-Counseling (PCOU), Minor (p. 2096)
- Public Health (PH), Minor (p. 2098)

Faculty

DJ McMaughan, PhD—Associate Professor and Interim School Head
Professors: Tonya Hammer, PhD; John Romans, PhD
Associate Professors: Douglas Knutson, PhD; Ho Han, PhD; Valerie McGaha, PhD
Clinical Professor: Ginger Welch, PhD
Assistant Professors: Lisa Beijan, PhD; Diane Cannon, DNP; Xuewei Chen, PhD; Alana Cluck, PhD; Chris Fisher, PhD; Heontae Kim, PhD; Jyotsana Sharma, PhD; Anita Silwal, PhD; Jiso Youn, PhD, Emily Abel, PhD
Clinical Assistant Professor: Polly Cottom, MS; Denise Floyd, MS; Rebecca Hurst, PhD; Sarah Johnson, PhD; Tracy Kendall, DNP; Jenifer Lancaster, MSN; Trista Madison, MS; Victoria Rusinov, DNP; Ashley Ward, MS
Clinical Teaching Instructor: Amy Mayes, MS, RN
Visiting Assistant Professor: Yuracy Salazar, DNP

Nursing, BSN

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing (B or better in ENGL 1113 and consent of student's college required.)	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
HIST 3703	Oklahoma History (DH)	3
or HIST 3793	Native American History (DH)	
or HIST 4553	Gender in America (DH)	
or other (DH) designated course		
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Minimum grade of "C"		
NSCI 2013	Principles of Human Nutrition (N)	3
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
PSYC 2583	Developmental Psychology (S)	3
or HDFS 2113	Lifespan Human Development (S)	
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
BIOL 3204	Physiology (or appropriate transfer credits for 4 hours Physiology and Physiology Lab)	4
BIOL 3214	Human Anatomy (or appropriate transfer credits for 4 hours of Human Anatomy and Human Anatomy Lab)	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
NURS 2011	Medical Terminology in Nursing	1
Elective		1
Hours Subtotal		**17**
Major Requirements		
Minimum GPA of 2.50 with a minimum grade of "C" or "P" in each course.		
NURS 3183	Nursing Care of Aging Populations	3
NURS 3003	Pharmacology in Nursing	3
NURS 3213	Theoretical and Conceptual Frameworks of Nursing	3
NURS 3018	Foundations of Nursing	8
NURS 3102	Nursing Pharmacology II	2
NURS 3118	Adult Health Nursing I	8
NURS 4122	Trends and Topics in Nursing	2
NURS 3223	Global and Cultural Competency in Nursing (Global and Cultural Competencies in Nursing)	3
NURS 4143	Research and Evidence-Based Practice in Nursing	3
NURS 4054	Nursing Capstone and Transition to Practice	4
NURS 4116	Adult Health Nursing II	6
NURS 4136	Essentials of Nursing Leadership	6
NURS 3115	Maternal and Pediatric Nursing	5
NURS 4113	Nursing Care of the Family and Community	3
NURS 4333	Mental Health Nursing	3
NURS 4242	Nursing Informatics	2
Hours Subtotal		**64**
Total Hours		**122**

Other Requirements

- 40 hours of upper-division course work.
- Required for graduation:
  - 2.50 Overall GPA;
  - 2.50 GPA in College/Departmental Requirements; and
  - 2.50 GPA in Major Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
MATH 1513	College Algebra (Q)	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
NSCI 2013	Principles of Human Nutrition (N)	3
	Hours	**14**
Spring		
CHEM 1314	Chemistry I (LN)	4
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
3 Hours General Education (G)		3
Students will complete 58 hours of prerequisite coursework early in the degree plan, which includes general education and science-focused courses. In the semester prior to completing prerequisite coursework, students will submit a competitive secondary application to continue professional coursework, which includes laboratories, simulations and clinical experiences, toward a nursing degree.		
PSYC 1113	Introductory Psychology (S)	3
	Hours	**16**
Sophomore		
Fall		
BIOL 3204	Physiology (or appropriate transfer credits for 4 hours Physiology and Physiology Lab)	4
MICR 2123	Introduction to Microbiology	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 Hours Course Designated (DH)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
BIOL 3214	Human Anatomy (or appropriate transfer credits for 4 hours of Human Anatomy and Human Anatomy Lab)	4
MICR 2132	Introduction to Microbiology Laboratory	2
HDFS 2113	Lifespan Human Development (S)	3
3 Hour Course Designated (H)		3
NURS 2011	Medical Terminology in Nursing	1
1 hour Elective		1
	Hours	**14**
Junior		
Fall		
NURS 3003	Pharmacology in Nursing	3
NURS 3018	Foundations of Nursing	8
NURS 3213	Theoretical and Conceptual Frameworks of Nursing	3
NURS 3183	Nursing Care of Aging Populations	3
	Hours	**17**
Spring		
NURS 3223	Global and Cultural Competency in Nursing	3
NURS 3118	Adult Health Nursing I	8
NURS 4122	Trends and Topics in Nursing	2
NURS 4143	Research and Evidence-Based Practice in Nursing	3
	Hours	**16**
Senior		
Fall		
NURS 4116	Adult Health Nursing II	6
NURS 3102	Nursing Pharmacology II	2
NURS 3115	Maternal and Pediatric Nursing	5
NURS 4113	Nursing Care of the Family and Community	3
	Hours	**16**
Spring		
NURS 4054	Nursing Capstone and Transition to Practice	4
NURS 4242	Nursing Informatics	2
NURS 4136	Essentials of Nursing Leadership	6
NURS 4333	Mental Health Nursing	3
	Hours	**15**
	Total Hours	**122**

Nursing: RN to BSN, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH courses designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
NSCI 2013	Principles of Human Nutrition (N)	3
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		6
Hours Subtotal		**43**
College/Departmental Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 1111	First Year Seminar Supplement	1
or EDHS 3111	Preparing for Your Future Career	
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
BIOL 3204	Physiology (or appropriate transfer credits for 4 hours Physiology and Physiology Lab)	4
BIOL 3214	Human Anatomy (or appropriate transfer credits for 4 hours of Human Anatomy and Human Anatomy Lab)	4
Hours Subtotal		**15**
Major Requirements		
Minimum GPA of 2.50 with a minimum grade of "C" or "P" in each course.		
NURS 3000	Registered Nursing Experience/License (For Associate Degree or Diploma in Nursing + RN License)	30
NURS 3013	Theoretical and Conceptual Foundations of Nursing	3
NURS 4243	Nursing Informatics	3
NURS 3083	Nursing Care of Older Adults	3
NURS 3025	Health Assessment, Wellness and Community Health	5
NURS 3033	Cultural Considerations in Health Care	3
NURS 3043	Global and Public Health	3
NURS 4023	Trends and Issues in Nursing	3
NURS 4034	Leadership and Management in Nursing	4
NURS 4043	Nursing Research and Evidenced-Based Practice	3
NURS 4050	RN-BSN Capstone	2
Hours Subtotal		**62**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division course work.
- Required for graduation:
  - 2.50 Overall GPA;
  - 2.50 GPA in College/Departmental Requirements; and
  - 2.50 GPA in Major Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Minimum Overall GPA: 2.50
Total Hours: 120

Prerequisite Coursework

Code	Title	Hours
ENGL 1113	Composition I	3
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
MATH course designated (Q)		3
Course designated Humanities (H)		3
Course designated Humanities (H)		3
CHEM 1215	Chemical Principles I (LN)	5
or CHEM 1314	Chemistry I (LN)	
NSCI 2013	Principles of Human Nutrition (N)	3
Course designated (Q), (H), (N) or (S)		3
Course designated (Q), (H), (N) or (S)		3
Course designated (Q), (H), (N) or (S)		2
One course designated Diversity (D)		3
One course designated Global Dimension (G)		3
UNIV 1111	First Year Seminar	1
MICR 2123	Introduction to Microbiology	3
EDHS 3111	Preparing for Your Future Career	1
MICR 2132	Introduction to Microbiology Laboratory	2
STAT 2013	Elementary Statistics (Q)	3
Human Anatomy		4
Physiology		4
Associate Degree or Diploma in Nursing [1]		
RN License [1]		

1

NURS 3000 (30 credit hours) = Advanced Standing Credit received for completion of these prerequisites.

Semester 1

Code	Title	Hours
Block 1 (1st 8 weeks) [2]		
NURS 3013	Theoretical and Conceptual Foundations of Nursing	3
NURS 3043	Global and Public Health	3
NURS 3083	Nursing Care of Older Adults	3
Block 2 (2nd 8 weeks) [2]		
NURS 3033	Cultural Considerations in Health Care	3
NURS 3025	Health Assessment, Wellness and Community Health	5

2

ALL prerequisite coursework and 3000-level NURS courses must be completed prior to enrollment in NURS 4000-level courses.

Semester 2

Code	Title	Hours
Block 1 (1st 8 weeks)		
NURS 4023	Trends and Issues in Nursing	3
NURS 4034	Leadership and Management in Nursing	4
NURS 4243	Nursing Informatics	3
Block 2 (2nd 8 weeks)		
NURS 4043	Nursing Research and Evidenced-Based Practice	3
NURS 4050	RN-BSN Capstone	1-6

Pre-Counseling (PCOU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Tonya R. Hammer, PhD, School of Community Health Sciences, Counseling and Counseling Psychology, (405) 744-6040

Minimum Overall Grade Point Average: 2.50 with no grade below "C" in all minor courses
Total Hours: 15

Code	Title	Hours
CPSY 3003	Introduction to Counseling and Related Professions	3
CPSY 3013	Introduction to Helping Skills	3
CPSY 3023	Mental Health in Schools and the Community	3
CPSY 4013	Field Experience in Counseling	3
CPSY 4443	Cultural Diversity in Professional Life (D)	3
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Pre-Nursing, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 62

Minimum GPA 2.50 with no grade below "C." Minimum 15 hours in residence at OSU.

Code	Title	Hours
UNIV 1111	First Year Seminar	1
EDHS 1111	First Year Seminar Supplement	1
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
MATH 1513	College Algebra (A) (or higher)	3
STAT 2013	Elementary Statistics (A)	3
or STAT 2023	Elementary Statistics for Business and Economics (A)	
or PSYC 3214	Statistical Methods in Psychology	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 3204	Physiology	4
BIOL 3214	Human Anatomy (Strongly recommended. Some nursing schools require BIOL 3214.)	4
or HHP 2654	Applied Anatomy	
CHEM 1314	Chemistry I (LN)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
NSCI 2013	Principles of Human Nutrition (N)	3
Select 3 hours from:		3
PHIL 1113	Introduction To Philosophy (H)	
PHIL 1213	Philosophies of Life (H)	
PHIL 3513	Social & Political Philosophy (H)	
PHIL 3833	Biomedical Ethics (H)	
Select 3 hours Humanities (H) from:		3
ARCH 2003	Architecture and Society (HI)	
ART 1503	Art History Survey I (H)	
ART 1513	Art History Survey II (H)	
ART 1603	Introduction to Global Art (H)	
ART 3603	History of Classical Art (H)	
DANC 1003	Introduction to Dance Studies (H)	
ENGL 1923	Classics Old and New (H)	
ENGL 2413	Exploring Literature (DH)	
ENGL 2453	Introduction to Film and Television (H)	
MUSI 2573	Introduction to Music (H)	
MUSI 2763	History of Rock and Roll (H)	
MUSI 2783	American Popular Music (H)	
TH 2413	Introduction to Staged Entertainment (H)	
TH 3633	Diverse American Drama (DH)	
Select 3 hours from:		3
ANTH 3353	Cultural Anthropology (IS)	
ANTH 3443	Peoples of Mesoamerica (IS)	
ANTH 4883	Comparative Cultures (IS)	
GEOG 3753	Asia (IS)	
GEOG 3763	Africa (IS)	
HIST 3053	Introduction to Central Asia Studies (IS)	
HIST 3413	East Asia Since 1800 (HI)	
HIST 3423	Modern Japan (HI)	
HIST 3433	Modern China (HI)	
NSCI 3543	Food and the Human Environment (IS)	
PHIL 3943	Asian Philosophy (HI)	
PSYC 1113	Introductory Psychology (S)	3
PSYC 2583	Developmental Psychology (S)	3
or HDFS 2113	Lifespan Human Development (S)	
SOC 1113	Introductory Sociology (S)	3
Total Hours		**62**

Public Health (PH), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Marshan Oliver-Marick, PhD, School of Community Health Sciences, Counseling and Counseling Psychology, 918-594-8536

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
HLTH 2213	Introduction to Public Health	3
HLTH 2603	Total Wellness (S)	3
HLTH 3613	Community Health	3
HLTH 3643	Health Behavior Theory	3
HLTH 4973	Program Design in Public Health	3
Select 3 hours of the following:		3
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3603	Understanding HIV (DS)	
HLTH 3623	School Health Programs	
HLTH 3723	Principles of Epidemiology	
HLTH 3913	Substance Use & Public Health	
HLTH 4233	Health and Sexuality (DS)	
HLTH 4533	Psychosocial Issues in Public Health	
HLTH 4783	Public Health and Aging	
NSCI 2013	Principles of Human Nutrition (N)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Public Health, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Required Courses		
HLTH 2213	Introduction to Public Health	3
HLTH 3343	Public Health Policy	3
HLTH 3613	Community Health	3
HLTH 3643	Health Behavior Theory	3
HLTH 3723	Principles of Epidemiology	3
HLTH 4973	Program Design in Public Health	3
Total Hours		**18**

Certificate completion will require a minimum cumulative GPA of 2.50 and no grade below "C" in the required courses.

Public Health: Community Health, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.75
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Math or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum GPA 2.75 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
MSIS 2103	Business Data Science Technologies	3
or EDTC 4113	Applications of Media and Technology	
NSCI 2013	Principles of Human Nutrition (N)	3
BIOL 3204	Physiology	4
Choose one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Hours Subtotal		**15**
Major Requirements		
Minimum GPA of 2.75 with a minimum grade of "C" or "P" in each course		
HLTH 2213	Introduction to Public Health	3
HLTH 2603	Total Wellness (S)	3
HLTH 3113	Health Issues in Diverse Populations (D)	3
HLTH 3343	Public Health Policy	3
HLTH 3613	Community Health	3
HLTH 3643	Health Behavior Theory	3
HLTH 3723	Principles of Epidemiology	3
HLTH 3913	Substance Use & Public Health	3
HLTH 3923	Social Determinants of Health and Public Health Equity	3
HLTH 4233	Health and Sexuality (DS)	3
HLTH 4313	Public Health Communication	3
HLTH 4533	Psychosocial Issues in Public Health	3
HLTH 4783	Public Health and Aging	3
HLTH 4880	Internship in Public Health: Public Health (12 hours)	12
HLTH 4903	Pre-Internship Seminar	3
HLTH 4973	Program Design in Public Health	3
Elective Hours		
Select 8 hours		8
Hours Subtotal		**65**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division course work.
- Required for enrollment in HLTH 4880 Internship in Public Health: Public Health
  a. Documentation of current first aid/CPR certification; and
  b. 2.75 GPA in Major Requirements, 2.75 GPA in College/Departmental Requirements, & 2.75 Overall GPA.
- Required for graduation:
  a. 2.75 Overall GPA;
  b. 2.75 GPA in College/Departmental Requirements; and
  c. 2.75 GPA in Major Requirements.

- The student must earn minimum grades of “C” or “P” in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH or STAT Course Designated (A) MATH 1513 suggested		3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
HLTH 2213	Introduction to Public Health	3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
HLTH 2603	Total Wellness (S)	3
3 Hours General Education (S)		3
3 Hours General Education (H)		3
	Hours	**16**
Sophomore		
Fall		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 Hours General Education (G)		3
3 Hours of Elective		3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
HLTH 3613	Community Health	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
POLS 1113	American Government	3
Course Designated (H)		3
NSCI 2013	Principles of Human Nutrition (N)	3
MSIS 2103 or EDTC 4113	Business Data Science Technologies or Applications of Media and Technology	3
3 Hours of Elective		3
	Hours	**15**
Junior		
Fall		
BIOL 3204	Physiology	4
HLTH 3113	Health Issues in Diverse Populations (D)	3
HLTH 3643	Health Behavior Theory	3
2 hours of Electives		2
HLTH 3913	Substance Use & Public Health (Fall Only)	3
	Hours	**15**
Spring		
5 Hours General Education (Q, H, N, S, D, G, or F))		5
HLTH 4533	Psychosocial Issues in Public Health (Spring Only)	3
HLTH 4233	Health and Sexuality (DS) (Spring Only)	3
HLTH 3343	Public Health Policy (Spring Only)	3
HLTH 3923	Social Determinants of Health and Public Health Equity (Spring Only)	3
	Hours	**17**
Senior		
Fall		
HLTH 4783	Public Health and Aging	3
HLTH 3723	Principles of Epidemiology	3
HLTH 4973	Program Design in Public Health	3
HLTH 4903	Pre-Internship Seminar	3
HLTH 4313	Public Health Communication	3
	Hours	**15**
Spring		
HLTH 4880	Internship in Public Health: Public Health	12
	Hours	**12**
	Total Hours	**120**

Public Health: Exercise and Health, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.75
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum GPA 2.75 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
MSIS 2103	Business Data Science Technologies	3
or EDTC 4113	Applications of Media and Technology	
NSCI 2013	Principles of Human Nutrition (N)	3
BIOL 3204	Physiology	4
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Hours Subtotal		**15**
Major Requirements		
Minimum GPA of 2.75 with a minimum grade of "C" or "P" in each course		
HHP 2654	Applied Anatomy	4
or BIOL 3214	Human Anatomy	
HHP 3114	Physiology of Exercise	4
HHP 3663	Biomechanics	3
HLTH 2213	Introduction to Public Health	3
HLTH 2603	Total Wellness (S)	3
HLTH 3113	Health Issues in Diverse Populations (D)	3
HLTH 3343	Public Health Policy	3
HLTH 3613	Community Health	3
HLTH 3643	Health Behavior Theory	3
HLTH 3673	Physical Activity and Public Health	3
HLTH 3723	Principles of Epidemiology	3
HLTH 3923	Social Determinants of Health and Public Health Equity	3
HLTH 4313	Public Health Communication	3
HLTH 4903	Pre-Internship Seminar	3
HLTH 4973	Program Design in Public Health	3
HLTH 4990	Internship in Public Health: Exercise and Health	12
Elective hours		
Select 6 hours		6
Hours Subtotal		**65**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division course work.
- Required for enrollment in HLTH 4990 Internship in Public Health: Exercise and Health
  a. Documentation of current first aid/CPR certification and
  b. 2.75 GPA in Major Requirements, 2.75 GPA in College/Departmental Requirements, & 2.75 Overall GPA.
- Required for graduation:

a. 2.75 Overall GPA;
b. 2.75 GPA in College/Departmental Requirements; and
c. 2.75 GPA in Major Requirements.

- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
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Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH or STAT Course Designated (Q) MATH 1513 suggested		3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
HLTH 2213	Introduction to Public Health	3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
3 Hour General Education (H)		3
HLTH 2603	Total Wellness (S)	3
3 Hours General Education (S)		3
	Hours	**16**
Sophomore		
Fall		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 Hours General Education (G)		3
3 Hours of Elective		3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
HLTH 3613	Community Health	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
POLS 1113	American Government	3
NSCI 2013	Principles of Human Nutrition (N)	3
3 Hour General Education (H)		3
MSIS 2103 or EDTC 4113	Business Data Science Technologies or Applications of Media and Technology	3
HLTH 3343	Public Health Policy (Spring Only)	3
	Hours	**15**
Junior		
Fall		
BIOL 3204	Physiology	4
HLTH 3643	Health Behavior Theory	3
5 Hours General Education (Q, H, N, S, D, G, or F))		5
HLTH 3113	Health Issues in Diverse Populations (D)	3
	Hours	**15**
Spring		
HLTH 3723	Principles of Epidemiology	3
HHP 2654 or BIOL 3214	Applied Anatomy or Human Anatomy	4
HHP 3663	Biomechanics	3
HLTH 3673	Physical Activity and Public Health (Spring Only)	3
HLTH 3923	Social Determinants of Health and Public Health Equity	3
	Hours	**16**
Senior		
Fall		
3 Hours of Electives		3
HHP 3114	Physiology of Exercise	4
HLTH 4973	Program Design in Public Health	3
HLTH 4903	Pre-Internship Seminar	3
HLTH 4313	Public Health Communication	3
	Hours	**16**
Spring		
HLTH 4990	Internship in Public Health: Exercise and Health	12
	Hours	**12**
	Total Hours	**120**

School of Educational Foundations, Leadership and Aviation

Mike Yough, PhD—Professor and Interim School Head

The School of Educational Foundations, Leadership, and Aviation (SEFLA) offers degrees, options or certificates in the following areas: aviation and space; school administration; educational psychology; educational technology; school library media, online teaching; higher education; college student development; research, evaluation, measurement and statistics; and social foundations. These programs conduct scholarly inquiry and educate professionals in areas foundational to thought and practice in a wide variety of professional roles associated with business and educational and industry settings. Consistent with the goals of OSU's Professional Education Council's Core Concepts and Goals Statement, the faculty strives to demonstrate and perpetuate teaching that is based on theory and research-driven educational practices.

We provide specialized training at the undergraduate and graduate levels yet permit flexibility to enable students to meet individualized goals. General information about undergraduate degrees is offered under the "*University Academic Regulations*" section of the Catalog. General information about graduate degrees may be found in the "*Master's Degree," "Certificates," "Doctor of Education," or "Doctor of Philosophy*" areas of the "*Graduate College*" section of the Catalog.

Course Prefixes

Course prefixes in SEFLA include AVED (Aviation Education); EDLE (Educational Leadership - School Administration); EDTC (Educational Technology); EPSY (Educational Psychology); LBSC (Library Science); REMS (Research, Educational Measurements and Statistics); HESA (Higher Education and Student Affairs; SCFD (Social Foundations); and WAED (Workforce and Adult Education).

Aviation and Space Program

Jon Loffi, EdD—Professor and Program Coordinator for Undergraduate Studies (Stillwater)
Mallory Casebolt, EdD—Associate Professor and Program Coordinator for Undergraduate Studies (Tulsa)

The Bachelor of Science in Aerospace Administration and Operations is designed to prepare students for diverse professional roles in the aerospace sector. This degree offers four distinct concentration options: *Professional Pilot*, *Aviation Management*, *Aerospace Security,* and *Technical Services Management*. Each option is tailored to address specific career trajectories within the industry.

Professional Pilot Option

The Professional Pilot track equips students with the requisite aeronautical knowledge and flight training for careers in both general aviation and commercial air carrier operations. This curriculum includes rigorous academic coursework in aviation science, safety, and operations, as well as comprehensive flight training leading to the attainment of the following Federal Aviation Administration (FAA) certifications: Private Pilot, Commercial Pilot (Instrument Rated) for single-engine and multi-engine aircraft, and Certified Flight Instructor (CFI). The program is fully compliant with the provisions of Title 14 of the Code of Federal Regulations (CFR) Part 141, ensuring a structured and standardized flight education experience.

Aviation Management Option

The Aviation Management option is structured to prepare students for leadership and administrative roles within the aerospace industry. The curriculum encompasses studies in business administration, aviation law, airport operations, and organizational management. Graduates are well-positioned for employment with commercial air carriers, corporate aviation departments, regional airlines, and governmental or private-sector entities engaged in airport operations, manufacturing, maintenance, or regulatory oversight.

Aerospace Security Option

The Aerospace Security option is designed to equip students with the specialized knowledge and practical skills required for professional roles within the fields of homeland defense and aerospace security. Security considerations are inextricably integrated into all dimensions of aviation and aerospace operations. Graduates are prepared to pursue employment across a spectrum of sectors, including federal, state, and local law enforcement; governmental agencies; airport operations; and private sector entities engaged in aerospace security initiatives, critical infrastructure protection, and implementation of policy.

Technical Services Management Option

The Technical Services Management concentration is specifically designed for individuals possessing technical backgrounds in aircraft maintenance or avionics. This pathway enables students to augment their practical experience with managerial and organizational competencies essential for supervisory positions across the aerospace industry. Students may receive up to 25 credit hours for prior technical training obtained through an accredited institution, thereby accelerating degree completion and enhancing career advancement potential.

Industry Engagement and Experiential Learning

The Aviation and Space Program maintains a robust, industry-integrated internship initiative, developed in collaboration with major aerospace corporations, regional and national air carriers, and a diverse array of stakeholders within the aerospace sector. This experiential component fosters practical, real-world competencies while enhancing professional readiness and industry engagement.

Professional Affiliations

The Aviation and Space Program is an institutional member of the University Aviation Association (UAA), an organization committed to advancing collegiate aviation education and providing a platform for academic and industry collaboration.

Educational Leadership/Workforce and Adult Education

Katherine Curry, EdD—Professor and Program Coordinator (School Administration)

The Educational Leadership/Workforce and Adult Education program emphasizes the important role of leadership in all areas of education including PK-12 schools and workforce development. The PhD in Educational Leadership and Policy Studies is offered with an option in Educational Administration; the Doctorate in Education (EdD) is offered in School Administration; and the Education Specialist (EdS) in Education has an option in School Administration. The Master of Science degree is offered with an option in School Administration (a 36-hour program designed for those who aspire to the principalship) and an option in Workforce and Adult Education. Students holding a

related masters degree and teacher certification may add on principal certification through coursework and institutional recommendation. The program also offers graduate certificate programs in district level leadership, building level leadership, and workforce and adult education. These certificates incorporate courses that partially fulfill superintendent and principal state licensure requirements. Admissions to the graduate programs in Educational Leadership are competitive and based on multiple factors.EDLE website

Educational Psychology

Chia-chen Yang, PhD—Associate Professor and Program Coordinator

Educational Psychology is the study of human learning, development, and motivation in educational settings. Educational psychologists are concerned with understanding how environments are structured to promote cognitive, personal and social development broadly as well as learning and motivation. The role of Educational Psychology is to bring together theory and research from psychology and related disciplines in order to facilitate healthy human development and effective learning and teaching. Our PhD program is designed to prepare graduates to teach in college or university settings, public education, and/or to do research in university, business, and government settings. The MS program is designed to help students develop the capabilities, knowledge, skills and competencies that prepare them as effective professionals or attractive PhD program applicants. EPSY website (https://education.okstate.edu/epsy/)

Higher Education and Student Affairs

Kerri Kearney, EdD—Professor and Program Coordinator

The Higher Education and Student Affairs (HESA) program features two academic degrees. These include the PhD in Educational Leadership and Policy Studies, with an option in Higher Education and the MS in Educational Leadership Studies with options in Higher Education and College Student Development. The PhD is a research-based degree that prepares individuals for leadership as faculty, administrators, or policy analysts. In addition, two coursework tracks are available to complete the Master of Science degree. The MS degree prepare individuals for leadership positions in postsecondary and higher education environments. Admission to HESA graduate programs is competitive and based on multiple considerations. HESA website (https://education.okstate.edu/hesa/)

Learning, Design, and Technology

Penny Thompson, PhD—Professor and Program Coordinator

The mission of Oklahoma State University's Learning, Design, and Technology program is to facilitate the growth of scholars and educational technology professionals through rigorous programs of study that provide exceptional hands-on, collaborative, and innovative learning, research and service experiences and are highly regarded at the international, national, state and university levels. The program website, edtech.okstate.edu (http://edtech.okstate.edu/), offers greater detail. Programs/certifications include: MS in Educational Technology with options in Educational Technology and School Library Media, PhD in Education with an option in Educational Technology, Graduate Certificate in Online Teaching, and Certification in School Library Media. This program is also home to the Emerging Technologies and Creativity Research Lab (https://edtech.okstate.edu/techplayground/). EDTC website (http://edtech.okstate.edu)

Research, Evaluation, Measurement and Statistics

Jam Khojasteh, PhD—Professor and Program Coordinator

The Research, Evaluation, Measurement and Statistics program (see website) offers the MS and PhD degrees as options under the MS in Educational Psychology and the PhD in Educational Psychology as well as three graduate certificates: 1) Program Evaluation, 2) Educational & Psychological Measurement, and 3) Statistical Methods & Analysis in Education & Behavioral Sciences. The MS program prepares students to function as staff members in research and evaluation units in school districts, governmental agencies, and private corporations and foundations. Graduates of the doctoral program are prepared to serve as college or university professors, directors of research and evaluation for public schools and universities, researchers for funded projects, state department of education consultants, and professional employees for test publishers and local, state and federal government agencies. REMS website (https://education.okstate.edu/rems/)

Social Foundations

Guoping Zhao, PhD—Professor and Program Coordinator

Social foundations of education is an interdisciplinary study of schooling and other forms of education. Ever since it began during the 1930s at Teachers College of Columbia University, social foundations has brought together scholars who situate education in historical, philosophical, economic and social contexts. Using the tools of the humanities and the social sciences, social foundations scholars ask perennial questions, such as: What is the purpose of schooling in a democracy? What knowledge and values should be taught and to whose benefit? How are issues of race, ethnicity, social class, gender and ability manifested in schools?

Drawing from history, philosophy, sociology, anthropology, international studies and other disciplines to teach their courses, faculty in the social foundations program area ask that educators reflect critically on the social and cultural dynamics in educational settings and how policy and practices might be improved. Students from other human service professions and other disciplines are invited to make similar use of the content of these courses for their professional practice. SCFD website (https://education.okstate.edu/scfd/)

Programs/Options Degrees

Degrees offered through SEFLA programs include Bachelor of Science (BS), Master of Science (MS), Education Specialist (EdS), Doctor of Education (EdD) and Doctor of Philosophy (PhD).

Eleven programs are delivered fully online: Education Doctorate (EdD) in School Administration, Education Specialist (EdS) in School Administration, MS Aviation and Space, MS Educational Technology, MS Educational Psychology (Educational Psychology option), MS Educational Leadership and Policy Studies (Higher Education Administration option), EdD Applied Educational Studies/Aviation and Space, and Graduate Certificate in Online Teaching, Graduate Certificate in Building Level Leadership, Graduate Certificate in District Level Leadership, and Graduate Certificate in Workforce and Adult Education.

Aviation and Space

- Aviation and Space – MS
- Aerospace Administration and Operations

  - Professional Pilot – BS
  - Aviation Management – BS
  - Aerospace Security – BS
  - Technical Service Management – BS
- Applied Educational Studies/Aviation and Space Specialization – EdD

Educational Leadership

- Educational Leadership Studies/School Administration – MS (online)
- Educational Leadership Studies/Workforce and Adult Education – MS (online)
- Education/Educational Administration – EdS (online)
- School Administration – EdD (online)
- Educational Leadership and Policy Studies/Educational Administration – PhD (students may choose elective/cognate courses, if desired, to earn this degree online)
- Graduate Certificate (GRCT) in Building Level Leadership (online)
- Graduate Certificate (GRCT) in District Level Certificate (online)
- Graduate Certificate (GRCT) in Workforce and Adult Education (online)

Educational Technology

- Educational Technology
  - Educational Technology – MS
  - School Library Media – MS
- Online Teaching – Graduate Certificate
- School Library Certification – Graduate Certificate
- Education/Learning, Design, and Technology – PhD

Educational Psychology

- Educational Psychology – MS, PhD

Higher Education and Student Affairs

- Educational Leadership Studies - MS
  - Option: Higher Education Administration
  - Option: Student Affairs
- Educational Leadership and Policy Studies – PhD
  - Option: Higher Education

Research, Evaluation, Measurement and Statistics

- Educational Psychology/Research, Evaluation, Measurement and Statistics – MS
- Educational Psychology/Research, Evaluation, Measurement and Statistics – PhD

Social Foundations

- Social Foundations of Education – MA
- PhD in Education/Social Foundations – PhD

Courses

AVED 1114 Theory of Flight
Description: Private pilot ground school. Course includes theory of flight, principles of navigation, meteorology, and Federal Aviation Regulations. Preparation for FAA private pilot computer-based knowledge exam. Previously offered as AVED 1113.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 1210 Private Flight Laboratory 1A
Description: Flight lab for beginning pilots. Course contains first part of FAA Private Pilot Certification. Training conducted under 14 CFR 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 1222.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 1222 Private Flight Laboratory I
Description: Flight lab for beginning pilots. Course contains first part of FAA Private Pilot Certification. Training conducted under 14 CFR 141. Course previously offered as AVED 1221.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 1230 Private Flight Laboratory 2A
Prerequisites: AVED 1222 or AVED 1210
Description: Flight lab for beginning pilots part two. Course contains second part of FAA private pilot certification. Training conducted under 14 CFR. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 1232.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 1232 Private Flight Laboratory II
Prerequisites: AVED 1222.
Description: Course contains second part of FAA Private Pilot Certification. Training conducted under 14 CFR 141.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 1403 Advanced Theory of Flight
Prerequisites: AVED 1114 and passed FAA Private Pilot Examination.
Description: Advanced navigation, aircraft performance and meteorology, and introduction to crew resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2112 Secondary Flight (H)
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Human Heritage & Cultures

AVED 2120 Intermediate Flight Laboratory 1A
Prerequisites: AVED 2133 or AVED 2130.
Description: Professional Pilot Course emphasizing IFR cross country operations. Flight instruction conducted under Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 2122. Special fee required.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 2122 Intermediate Flight Lab
Prerequisites: AVED 2133.
Description: Professional Pilot Course emphasizing IFR cross country operations. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2130 Instrument Flight Laboratory 1A
Prerequisites: AVED 1222 or AVED 1210, and AVED 1232 or AVED 1230.
Description: Professional Pilot Course required for FAA instrument rating. Flight instruction conducted under FAR Part 141. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours. May not be used for degree credit with AVED 2133.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $233 applies.

AVED 2131 Conventional Landing Gear Systems
Prerequisites: AVED 1232 Primary Flight Lab II.
Description: Course provides the knowledge and practical experience required to demonstrate proficiency in conventional landing gear configured aircraft. Completion of this course will endorse the student under Federal Regulation Part 61 for Pilot-In-Command operation for Tail Wheel aircraft. Requires flight instruction conducted under FAA FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 2133 Instrument Flight Laboratory
Prerequisites: AVED 1222 and AVED 1232.
Description: Professional Pilot Course required for FAA instrument rating. Flight instruction conducted under FAR Part 141. Previously offered as AVED 2132.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2140 Commercial Maneuvers Flight Laboratory 1A
Prerequisites: AVED 2122 or AVED 2120.
Description: Professional Pilot Course emphasizing Commercial practical test maneuvers. Flight instruction conducted under Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 2142.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 2142 Commercial Maneuvers Flight Lab
Prerequisites: AVED 2122.
Description: Professional Pilot Course emphasizing Commercial practical test maneuvers. Flight instruction conducted under FAR Part 141.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 2213 Theory of Instrument Flight
Prerequisites: AVED 1403.
Description: Instrument flight rules, the air traffic system and procedures, the elements of forecasting weather trends. Preparation for FAA instrument computer-based knowledge exam. Previously offered as AVED 2214.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2313 Theory of Commercial Flight
Prerequisites: Passed Private Pilot Knowledge Exam.
Description: Advanced aircraft systems, aerodynamics, federal aviation regulations, airports and airspace, navigation, and performance. Preparation for FAA Commercial Pilot Written Examination.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 2513 Aviation Career Planning and Development
Description: Assessment of career interests and aviation job opportunities that match those interests. Development of an academic and career learning and development plan consistent with identified interests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3113 History of Aviation
Description: History of aviation from its early developments to the present. Historic events and the role of government as they relate to the evolution of the regulatory infrastructure of the aviation industry. Previously offered as AVED 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3231 Theory of Multi-Engine Flight
Prerequisites: Private Pilot Certificate.
Description: Aeronautical theory and information required for operating the multi-engine airplane safely, efficiently and within its specified limitations. Emphasis on aerodynamics and multi-engine emergencies.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3243 Human Factors in Aviation
Description: The study of people interacting with the aviation environment. Individual and group performance, equipment design, physical environment and procedure development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3333 Advanced Aircraft Systems
Prerequisites: AVED 2313.
Description: Professional Pilot Course emphasizing multiengine operations, including Commercial certification with Multiengine Rating. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3341 Multi-Engine Flight Laboratory
Prerequisites: AVED 2142.
Description: Professional Pilot Course emphasizing multiengine operations, including Commercial certification with Multiengine Rating. Flight instruction conducted under FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 3433 Aviation/Aerospace Ethics
Description: Ethical decision-making as applied to the aviation and aerospace industry, an industry with narrow tolerance for error in terms of human life and economic impact. Awareness of aviation ethical issues and associated decision-making skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3443 Aviation Legal and Regulatory Issues
Description: Insight pertinent to federal governing bodies in addition to local and international laws forming the present structure of aviation law. Practices and pitfalls in aviation activities and a basic legal research capability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3453 Aviation/Aerospace Security Issues
Description: Analysis of the legal and regulatory responses to changing threats to aerospace security. Review of technological solutions for airports and aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3463 Aerospace Maintenance and Safety
Description: Identification and management of the human errors encountered in all aspects of aircraft maintenance operations. Case studies of maintenance-related accidents: line, hangar, and overhaul maintenance. The role of quality control and quality assurance are also examined as tools in reducing maintenance error.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3473 OSHA for Aerospace Managers
Description: Occupational safety and health requirements within the aerospace industry. History of OSHA, OSHA regulations relative to aerospace organizations along with recent inspection results and published violations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3483 Airport Passenger and Baggage Screening
Description: The history of airport security, the laws and agencies tasked with aviation security and the passenger and baggage screening technologies currently in use or being tested in airports. The role of technology in the aviation layered security program will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3493 Analysis of Aviation Security Countermeasures
Description: A comprehensive approach to identification and analysis of security countermeasures in the Aviation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3513 Aviation/Aerospace Management Principles
Description: Managing the major elements of the aviation/aerospace industry, including aircraft manufacturing and air transportation system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3523 Airport Planning and Management
Description: Overview of the major functions of airport management, including master planning. Study of the socio-economic effects of airports on the communities they serve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3533 Aircraft Turbine Engine Operation
Description: Principles of physics and gas laws pertaining to turbine powered aircraft operation. Turbine power plant systems theory with emphasis on safe and efficient operation of turbine powered aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3543 Aerospace Organizational Communications
Description: Aerospace communication to aid aviation students in proper use of written and verbal skills needed in various aerospace leadership roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3563 Aviation Marketing
Description: Marketing aviation products for the major elements of the aviation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3573 Aviation/Aerospace Finance
Description: Financing the major elements of the aerospace industry, including general aviation, aircraft manufacturing and airports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3623 Airport Network Security
Description: Comprehensive evaluation of the airport network landscape to include evaluation and mitigation of potential threats to the overall airport environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3663 Aerospace and Air Carrier Industry
Description: Broad understanding of the air transportation industry and an in-depth knowledge of the organizational structures, managerial functions and operational aspects of today's major, national, and regional air carriers. Historical perspectives, regulators and associations, economic characteristics, labor relations and marketing of modern air carriers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3773 Underrepresented Populations in Aviation and Space (D)
Description: This course will identify the current issues facing the aviation and aerospace industry, and why inclusiveness within the industry matters even more today, as well as in the future. Explore the numerous struggles that underrepresented populations overcame to achieve their successes; and examine the many contributions that underrepresented populations made to the U.S. aviation and aerospace industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

AVED 3883 Space Flight
Description: A broad understanding and an in-depth knowledge of space flight and exploration of outer space. Emphasis will be placed on a thorough historical review and examination of the types of people and technological advancements involved in space exploration and flight.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3913 Planetary Sciences
Description: A grand tour of the classical planets, minor planets, moons, asteroids, comets, the Sun and more. The course will cover the physical sciences utilized within the greater field of planetary sciences (e.g. Earth sciences, chemistry, physics, astronomy, and biology) in order to aid students' learning of course material. Within the grand tour, focus will be placed on major scientific results of telescopic and spacecraft missions, as well as laboratory and field measurements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 3993 Aviation/Aerospace Supply Chain Management
Description: Management of aviation/aerospace supply chain processes and performance. Encompass the processes associated with the production of goods and services, including the movement of raw materials, inventory, and finished products. Introduce a variety of industry examples and cases related to aviation/aerospace domestic and global demand-driven supply chains to understand and evaluate the vital role of supply chain management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4100 Specialized Studies in Aviation
Description: Independent studies, seminars, and training within selected areas of aviation. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4103 Aerospace Distribution, Warehousing and Transportation
Description: Aerospace logistics concepts and the management of aerospace distribution activities ranging from top management planning to warehousing and shipping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4113 Aviation Safety
Description: Flight safety including studies in human factors, weather, aircraft crashworthiness, accident investigation, and aviation safety programs. Elements of aviation safety and flight operations (private flying, flight instruction, and business flying) and commercial aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4123 Aerospace Depot Maintenance
Description: Aerospace depot maintenance operational and budget issues related to Economic Order Quality, Materials Requirement Planning, Benefit Cost Analysis, repair expenditures, fleet flight hours, transport modules, handling, shipping and other activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4133 Principles of Flight Instruction
Description: Preparation for the FAA Fundamentals of Instructing and Flight Instructor Knowledge Exams, as well as preparation for the CFI Initial Practical Test.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4143 Government Operations and Interfaces in Aerospace Management
Description: Government and its impact on aerospace management decisions related to logistics, inventory management, production, and operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4153 Aerospace Sustainment
Prerequisites: Senior standing.
Description: A capstone course requiring application of all elements of the supply-chain management process to an aerospace organizational problem or project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4163 FAA and Aerospace Logistics Regulations and Requirements
Description: Government regulations and requirements and the impact of those requirements on the aerospace supply chain management processes using case scenarios related to logistics, aviation, operations, procurement and the environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4173 Aerospace Logistics Quality Programs
Description: Logistics quality programs, including TQM, Kaizen, Lean, Six Sigma, and ISO 9000 in aerospace organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4193 Aerospace Human Resource Management and Aerospace Workforce Acquisition
Description: Workforce planning techniques to strengthen knowledge retention practices within the aerospace industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4200 Internship in Aviation
Description: Individually supervised internship in aviation career areas. Directed field experience related to the participant's area of concentration. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4223 Turbine Aircraft Transition
Prerequisites: AVED 3341, AVED 3333, AVED 4353 and AVED 4703.
Description: Fundamental flight and operating procedures of turbine engine aircraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4230 Flight Instructor Flight Laboratory 1A
Prerequisites: AVED 2142 or AVED 2140, and AVED 4133.
Description: Dual flight instruction to meet the requirements for the FAA flight instructor: airplane certificate. Flight instruction conducted under FAR Part 141. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours. May not be used for degree credit with AVED 4232. Special fee required.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $350 applies.

AVED 4232 Flight Instructor: Airplane Flight Laboratory
Prerequisites: AVED 2142, AVED 4133.
Description: Dual flight instruction to meet the requirements for the FAA flight instructor: airplane certificate. Flight instruction conducted under FAR Part 141. Previously offered as AVED 4231.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $700 applies.

AVED 4303 Aviation Weather
Prerequisites: GEOG 3033.
Description: Familiarization with weather products needed to enhance flight safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4331 Flight Instructor: Instrument Flight Laboratory
Prerequisites: AVED 4232.
Description: Dual flight instruction to meet the requirements of adding an instrument flight instructor rating to the flight instructor certificate. Flight instruction conducted under FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $260 applies.

AVED 4333 Advanced Aircraft Performance
Description: A study of advanced aircraft performance including appropriate physical laws, atmospheric properties and power plant technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4343 Geospatial Technologies for Aerospace Managers
Description: Using geographic information systems (GIS) and other geospatial technologies to effectively manage airports, including project management, maintenance, safety and security, noise and obstruction management, and environmental management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4353 Cockpit Automation
Prerequisites: AVED 2133.
Description: A study of aircraft "glass cockpits", including performance management, navigation and guidance, automatic flight control, flight instrument displays, and crew advisory and warning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4413 Aviation Terrorism and Asymmetrical Warfare
Description: Origins of modern terrorism and asymmetrical warfare as it related to current aviation security issues. A historical perspective to the headlines of today providing an understanding needed in making future security decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4423 Aviation Security Organizations and Law
Description: Understanding how security systems and law are organized and managed. Problems facing security management, including recruiting, screening, and hiring of security personnel. Problems associated with 24/7 operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4433 Airport Safety Inspections
Description: Safety requirements of U.S. general aviation airports. Elements of the 5010 airport inspection program, FAA advisory circulars, and other pertinent documents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4513 Aviation Operations Management
Prerequisites: AVED 3513 and AVED 3573.
Description: Application of operational management theory and practices within the aviation/aerospace industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4523 Airport Certified Member Preparation
Prerequisites: AVED 3523.
Description: Course focus is to earn knowledge necessary to successfully complete the AAAE Certified Member (CM) designation examination. Comprehensive evaluation of airport management and leadership issues to include administration, air service development, construction, finance, legislative affairs, maintenance, marketing and communications, operations, planning, and security.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4571 FFA Airplane Single Engine Sea
Prerequisites: AVED 2313, FAA COMM ASEL.
Description: Course provides the knowledge and practical experience required to pass a COMMERCIAL Single Engine Sea (ASES) FAA practical examination to add the ASES rating to an existing COMMERCIAL Single Engine Land (ASEL) license. Requires flight instruction under FAA FAR Part 141.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4643 Aviation Navigation Global Positioning Systems
Description: Overview of the theory and operation of the GPS in the private and public sector.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4653 International Aerospace Issues (G)
Description: Fundamental knowledge, comprehension and abilities to apply, analyze, synthesize and evaluate international aerospace issues, including trends in security, safety, technology, and organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension

AVED 4663 Aerospace Leadership
Description: Leadership theories and practices applicable to the aerospace environment and the types of leadership skills required for 21st Century aerospace organizational leaders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4703 Crew Resource Management
Prerequisites: AVED 2133 and AVED 2142.
Description: Discovering how resource management applies to crew behavior in aviation. Special emphasis on decision-making, judgment, teamwork, stress management, situation awareness, leadership, and workload management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4713 Unmanned Aircraft Pilot Laboratory
Prerequisites: AVED 1114.
Description: Aeronautical theory, information and piloting skills will be utilized for operating an unmanned aircraft safely, efficiently and within its specified limitations. Classroom and laboratory experiences are designed for the students to gain the necessary skills to operate an unmanned aircraft safely.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Educ Found Leadersh & Aviation

AVED 4771 Flight Instructor: Multi-Engine Flight Laboratory
Prerequisites: AVED 4232.
Description: Dual flight instruction to meet the requirement for adding a multi-engine flight instructor rating to the flight instructor certificate. Flight instruction conducted under FAR Part 141. Special fee required.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: AVSED fee of $260 applies.

AVED 4813 Air Transportation Compliance
Description: Regulatory requirements in the management of air transportation and logistics operations including the shipment of hazardous materials in domestic and international transport, U.S. Customs import/export compliance, and Transportation Safety Administration (TSA) requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4883 Capstone Course in Aviation Management
Prerequisites: Aviation Management major with senior status.
Description: Applies knowledge and issues obtained in prior aviation courses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4943 Basic Aircraft Accident Investigation
Description: A study of statutes, regulations and regulatory agency requirements that influence aircraft accident investigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4953 Corporate and General Aviation Management
Description: Study of management principles and practices of corporate and general aviation. Equipment acquisition, legal requirements, government regulations, flight operations, aircraft maintenance, management and investment decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4963 Airport Design
Description: Overview of airport planning and development parameters, airport design considerations, economic impact of airport development, and a global examination of airport expansion projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4983 Aerospace Industry Hazardous Materials or Dangerous Goods
Description: Regulatory requirements and compliance issues in managing aerospace industry hazardous materials and dangerous goods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 4990 Pilot Proficiency Flight
Description: Required for students entering the aviation education program who possess all FAA certificates/ratings required for the aviation sciences degree. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 4993 Aviation Labor Relations
Description: Aviation industry laws, regulations, and procedures for management and organized labor from historical through current perspectives. Focus on economic, legal, political, and public policy factors in aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5000 Master's Report or Thesis
Prerequisites: Consent of adviser.
Description: Students studying for a master's degree enroll in this course for a total of 3 credit hours if writing a report or 6 hours if writing a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5020 Seminar in Aerospace Education
Prerequisites: Consent of instructor.
Description: Individual research problems in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5053 Guided Reading and Research
Prerequisites: Consent of instructor.
Description: Guidance in reading and research required for the MS in aviation and space program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5103 Aviation Career Development
Description: Aviation career development in private and public aviation organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5113 Aerospace Safety Programs
Prerequisites: AVED 4113.
Description: A detailed examination of risk management and accident prevention in the aerospace industry. Organization and operation of safety programs including OSHA requirements, performance measurements, cost analysis, and systems safety analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5153 Capstone in Aerospace Research
Prerequisites: AVED 5053.
Description: The final culminating project intended to be an in-depth application of the knowledge and skills acquired from the MS Aerospace Education curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5200 Graduate Internship in Aviation and Space
Description: Directed field experiences in aerospace education for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5203 Aeromedical Factors
Prerequisites: AVED 3243.
Description: The study of aeromedical factors that influence pilot performance. The study of life support equipment designed to increase aviation safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5303 Aviation and Space Quality Issues
Description: A study of the practice and research involved in implementing aviation and space quality issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5333 Aircraft Performance
Description: Operational flight performance issues, especially transition from propeller-driven to jet aircraft. Use of flight simulation software to determine optimal speeds for climb, descent, range and maximum endurance of a specific aircraft model.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5363 Aircraft Systems
Description: Flight management systems, data exchange busses, computerized flight control systems, airframe environmental systems, electrical, pressurization, fuel and icing. Earlier generation aircraft systems contrasted with modern aircraft systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5403 Passenger Screening Technology
Description: Understanding of the technologies currently in use or being tested in airports. Passenger screening technologies and their role in establishing a layered security program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5413 Landside Security Technologies
Description: Technologies available for protecting the landside of the airport. Access control systems, blast protection and mitigation planning, perimeter security technologies and biometric technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5423 Security Planning Audits and NIMS
Description: The management of a security program. Written security plans, security audits, emergency management, and the National Incident Management System.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5433 General Aviation and Cargo Security
Description: Overview of airport operations: regulatory history of air transportation, aviation forecasting, capacity and delay issues at airports, environmental issues, airport emergency procedures and aircraft rescue and fire-fighting, and airport system and master planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5443 International Aviation Security
Description: Civil aviation security structure required of all airports and airlines engaged in international civil aviation operations. Focuses on the requirements of the International Civil Aviation Organization, specifically ICAO Annex 17.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5453 Advanced Aviation Security
Prerequisites: Graduate standing.
Description: In-depth look at aviation security. Development of a greater understanding of problems associated with maintaining a secure aviation transportation industry. Familiarity with the history of attacks against aircraft, airports and other aviation facilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5463 Aerospace Risk Assessment
Description: The risks, threats, and vulnerabilities associated with aviation/aerospace assets, and associated decision-making processes. Risk management principles and utilizing cost-benefit analysis and other tools and methodologies applicable to aviation and aerospace challenges.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5473 Aerospace Education and Training Effectiveness
Description: Curriculum design and instructional effectiveness for aviation/aerospace educators and training professionals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5543 Advanced Aerospace Communications
Description: Interdisciplinary area of study drawing from previous knowledge and experience in effective management and leadership communication to meet the unique demands of the field of aviation. A broad range of academic disciplines and technical experience guiding aviation professionals in the refinement of personal, team and organizational communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5553 Aerospace Proposal and Procurement
Description: Analysis of aerospace proposal writing and federal grant development including the basics of government acquisition and procurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5563 Aerospace Leadership and Management
Description: Introductory course on leadership and management issues in the highly volatile aerospace environment. Introduction to management and leadership theory of the past, and exploration of the aviation environment of the future.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5573 Aerospace Defense Acquisition
Description: Analysis of the Department of Defense (DoD) acquisition process, including the basics of acquisition management and the life cycle of a defense contract from inception to disposal. Phases of acquisition include: concept exploration, development, production, fielding and deployment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5593 Influencing Public Policy in the Aerospace Industry
Description: The aerospace legislative process, researching draft legislation, tracking state and federal legislation, communicating with legislators identifying the fiscal impact and benefits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5663 Issues in the Airline/Aerospace Industry
Description: The components, participants, activities, characteristics, scope and economic significance of the air carrier industry and its major segments. The effects of regulation, competition, marketing, manufacturing and environmental control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5720 Current Issues in Aerospace Education
Prerequisites: Consent of instructor.
Description: Current issues in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5773 Historical Significance of Aviation
Description: Humankind's attempt to conquer the skies from the earliest accomplishments in aviation to the aircraft of tomorrow. Profiles the way people, technology, and events have shaped the modern world of aviation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5783 History of Human Space Flight
Description: A historical view of human space flight starting in the 1950s with the Space Race to the early 2010s when the Space Shuttle was retired. Topics span the start of the Space Race, JFK's charge to put a human on the Moon, the Mercury, Gemini, and Apollo programs, space stations (with a focus on the International Space Station), and the Space Shuttle program. Emphasis will be placed on an examination of the people and technological advancements involved in space flight.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5793 Future of Space Flight
Description: An examination of NASA's and other space agencies' plans for future space flight, including both human missions and robotic missions. Includes an overview of commercial space flight, its beginnings and current endeavors, as well as theoretical examination of the logistical issues regarding the colonization of the Moon, Mars, or other planetary bodies. Emphasis will be placed on an examination of the people and technological advancements needed for future space flights.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5813 Earth Observation Systems
Prerequisites: GEOG 4333.
Description: A study of systems orbiting earth that collect data on the land and atmosphere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5823 Space Science
Description: A study of the sun, inner and outer planets, asteroid belt, space probe exploration, orbital mechanics and missions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5850 Directed Readings in Aerospace Education
Prerequisites: Consent of instructor.
Description: Directed studies in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5883 Aviation Economics
Description: The economic significance of the air carrier industry and its major segments. The effects of regulation, competition, schedules, marketing and environmental control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5893 Aerospace Executive Decision Making
Description: Application of concepts and lessons of executive decision leadership within the context of the aerospace environment. Utilization of problem solving skills and leadership lessons of the 21st century aerospace leader.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5910 Practicum in Aerospace Education
Prerequisites: Consent of instructor.
Description: Directed observation and supervised clinical experiences in aerospace education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 5953 Labor Relations in Aviation and Aerospace
Description: Labor laws, regulations, and labor-management relations in the U.S. aviation and aerospace industry, underlying the air carriers, public airport infrastructure, and related government employers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5963 Airport Operations
Prerequisites: Graduate standing.
Description: Extensive overview of airport operations. Familiarity with the regulatory history of air transportation, airports, the Federal Aviation Administration, and the Transportation Security Agency. Introduction to a wide variety of organizational structures found at U.S. airports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5973 Aerospace Law
Description: Study of the legal system as it relates to aerospace law and governance of the aviation industry. Previously offered as AVED 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 5993 Ethics in Aviation
Description: Learning how to protect vital interests and maintain ethical control in highly regulated environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6000 Doctoral Thesis
Description: Required of all candidates for the EdD in applied educational studies. Credit awarded upon completion of the thesis. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

AVED 6103 Doctoral Seminar in Aerospace Education
Description: Individual research problems in aerospace education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6203 Aviation Physiology
Prerequisites: AVED 5203 or equivalent.
Description: The study of the complexities of pilot performance as it relates to human physiology, human factors and aviation safety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6303 The Application of Qualitative Methods in Aviation Research
Description: An examination of the application of qualitative research methodologies and associated field work with an emphasis in aviation and aerospace.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6313 Administration of Aviation Institutions
Description: A study of the organization and administration of public and private aviation institutions. Study of the impact of economic and governmental system on these institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6413 Development of Air and Space Flight
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6423 Certification of Airplanes
Description: A study of the practices and research involved in the certification of airplanes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6443 Certification of Rotorcraft
Description: A study of the practices and research involved in the certification of rotorcraft.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6553 Foundations of Airline Executive Leadership
Description: History of airline leaders who had a significant impact on the U.S. air transportation industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6613 Aviation Executive Development
Description: A study of the styles of aviation executives in private and public aviation organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6773 Applied Aviation and Space Research
Prerequisites: Consent of instructor and approval of student's advisory committee.
Description: Action research topics in aviation and space identified by the aerospace industry with emphasis upon publications in aviation and space refereed journals and trade publications. Previously offered as AVED 6774.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6883 Doctoral Internship in Aviation and Space
Prerequisites: Consent and approval of student's advisory committee.
Description: Directed field experiences in aerospace education for doctoral students. Previously offered as AVED 6880.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6943 Aviation Regulatory Law
Description: A study of the practical application and research of the FAA regulatory process and associated case law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

AVED 6963 Advanced Aircraft Accident Investigation
Prerequisites: AVED 4943.
Description: Application and practice of the different statutes, regulations, and regulatory agency requirements that influence aircraft accident investigations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5000 Thesis Or Report
Prerequisites: Consent of instructor.
Description: Master's students may earn up to two hours of credit for a report or six hours of credit for a thesis. Students working on a specialist's report may earn a maximum of 10 hours of credit. Previously offered as EAHE 5000. Offered for variable credit, 1-10 credit hours, maximum of 10 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5253 The Principalship
Prerequisites: 5000-level course in school administration or equivalent.
Description: Strategies, techniques and solutions used by the principal in the administration and leadership of a public school. Previously offered as EDLE 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5323 School Finance
Description: Development of conceptual bases in economics of education, taxation, distribution systems, policy analysis; application to Oklahoma school finance; and introduction to budget development. Previously offered as EDLE 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5473 Supervision of Instruction
Description: Application of modern approaches to instructional supervision through practice in recording and analyzing teacher behavior in actual classroom settings. Clinical and group methods for improving instruction. Previously offered as EDLE 6473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5720 Education Workshop
Description: Analysis of organizational, administrative, and instructional problems by common schools and higher education personnel. Previously offered as EAHE 5720. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5723 Education Law
Description: Study of the legal framework of education (constitutional law, case law, and Oklahoma law) with emphases on church-state issues, tort liability, teachers' rights, and student rights.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5800 Embedded Field Studies Internship
Description: Practicum experiences designed to relate ideas and concepts to problems encountered in educational settings by faculty and administrators.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5813 Leadership Theory and Ethical Decision Making
Description: Developing understanding of leadership theory and issues related to decision-making in educational settings. Exploring leadership and decision-making within an ethical context. Previously offered as EAHE 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 5883 Field Studies Internship I
Prerequisites: Consent of instructor.
Description: Directed internship experiences designed to relate ideas and concepts to problems encountered in education by faculty and administrators. Previously offered as EDLE 5880.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 5893 Field Studies Intern II
Prerequisites: Consent of instructor.
Description: Directed advance internship experiences designed to relate ideas and concepts to problems encountered in educational organizations by faculty and administrators.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation
Additional Fees: EDLE 5893 fee of $75 applies.

EDLE 5953 Developing Educational Organizations
Prerequisites: EDLE 5813.
Description: Understanding and critically analyzing conventional and novel approaches to the climate and governance of schools and higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Education degree. Credit given upon completion of the thesis. Previously offered as EAHE 6000. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6003 Educational Ideas
Description: Decision-making processes used in educational systems and use of modern technologies for curricular enhancement and professional development. Previously offered as EAHE 6003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6143 Resources for the Study of Educational Leadership
Description: Introduction to research traditions, tools and processes that are integral to the study of educational leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6243 Connecting Theory and Practice in Administering Schools
Description: Application of research findings and theoretical concepts to best practice in administering educational organizations. Previously offered as EAHE 6243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6343 Problem Solving in School Administration
Description: Identifying and analyzing administrative problems, individually and collectively, in school settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6353 The Superintendency
Description: Integration of theory and practice through examination of roles and responsibilities of the superintendent. Particular emphasis on leadership, communications, and the changing nature of public education. Previously offered as EAHE 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6363 Special Topics in School Finance Policy
Prerequisites: Admission to the Graduate College and EDLE 5323 or equivalent.
Description: Investigation of problems in education finance policy within the interconnected concepts of liberty, equity, equality, adequacy and efficiency.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6393 The Human Factor in Administering Schools
Description: Analysis and critique of current issues in school personnel administration such as recruitment, selection, promotion, morale, salary, staff relations and teacher assessment. Previously offered as EAHE 6393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6423 The Politics of Education
Description: Activities of schools as they relate to the political environment, e.g., voter behavior, change strategies and community power structures. Previously offered as EDLE 6420.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6453 Special Topics in Education Law
Description: Analysis and critique of selected topics in school law relating to public school administration. Previously offered as EAHE 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6483 School Leadership, Culture and Ethics
Prerequisites: Admission to the School Administration doctoral program.
Description: Ethical dilemmas and leadership are explored. Personal ethics are studied in terms of integrity in leadership roles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6493 School Improvement/Reform
Prerequisites: Admission to the School Administration doctoral program.
Description: Focus on the theory and practice of school improvement/reform, especially addressing conditions of underachievement and performance gaps among diverse populations. Knowledge and skill related to understanding evaluating, and implementing school improvement/reform practices. Addresses Oklahoma licensure standards related to the provision of effective instructional practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6603 Organizational Theory in Education
Description: Selected organizational typologies, conceptualizations and theoretical frameworks as they relate to organizational behavior and behavior of personnel in organizations. Previously offered as EAHE 6603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6633 School Leadership and Community Collaboration
Description: Promoting student success, school mission and goals through collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources. Previously EDLE 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6650 Problems in Educational Administration
Description: Special administrative problem in common schools or higher education, e.g., school plant, school/community relations, administration and the instructional programs, attrition and finance. Previously offered as EAHE 6650. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6710 Special Problems
Description: Assists administrators with either recurrent or unique problems arising in common schools or in higher education. Emphasizes evaluation and planning related especially to staff, programs and faculty needs. Previously offered as EAHE 6710. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6850 Directed Reading
Description: Directed reading for students with graduate standing. Previously offered as EAHE 6850. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6853 Research Traditions in Educational Leadership
Description: Educational research design (including literature review, elements of a research proposal, and major research paradigms) supporting the field of School Administration. May not be used for degree credit with HESA 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6870 Seminar
Description: Topical issues related to administration and/or higher education, including research techniques available to analyze such topics. Previously offered as EAHE 6870. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6873 Leading Schools with Data
Prerequisites: Graduate standing.
Description: Practical application of decision-making from a systems perspective with a focus on identifying, collecting, organizing, and analyzing school district level data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDLE 6883 Internship in Education I
Prerequisites: Consent of instructor.
Description: Directed internship experiences designed to relate ideas and concepts to problems encountered in education by faculty and administrators. Previously offered as EDLE 6880.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6893 Internship in Education II
Prerequisites: Consent of instructor.
Description: Field experiences in a variety of educational work settings.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDLE 6910 Practicum
Prerequisites: Consent of instructor.
Description: Required of all candidates for the Specialist in Education degree. Designed to help the student carry out an acceptable field study or research problem. Credit given upon completion of the written report. Offered for variable credit, 1-5 credit hours, maximum of 9 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 3123 Applications of Educational Technologies
Description: Introduction to the design and development of instruction using educational media and technology in the PK-12 classroom. Materials development, contemporary applications of computers and other electronic systems to instruction. Integration of instructional design, instructional media, and instructional computing. May not be used for degree credit with EDTC 4113. Previously offered as CIED 3122.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4103 Advanced Computing Applications in Education
Description: In-depth exploration of advanced technology use in teaching and learning environments. Examination of current issues of technology use in instructional settings. May not be used for degree credit with EDTC 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4110 Special Topics in Educational Technology
Description: Exploration of contemporary problems or issues in educational technology. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4113 Applications of Media and Technology
Description: Introduction to the application of media and technology to formal and informal learning situations. Intended for non-professional education majors. May not be used for degree credit with EDTC 3123. Previously offered as CIED 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4223 Introduction to Assistive Technologies
Description: Introduction to assistive technologies and the application of assistive technologies in formal and informal learning environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4503 Facilitating Online Learning
Description: Students will apply knowledge of pedagogy, instructional design, learning theory, standards for online teaching, online community building and teaching with technology by developing a proposal for an online course in an area of their choosing. May not be used for degree credit with EDTC 5503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4753 Introduction to Instructional Design
Description: Introduction to the systematic design of instruction. Topics covered: Analysis, design, development, implementation, and evaluation of instructional materials in a variety of educational settings. Current research, trends and issues in instructional design will be addressed. May not be used for degree credit with EDTC 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 4773 Instructional Systems Project Management
Description: Explore essential elements of successful instructional systems project management by defining a project, identifying essential components, developing the project schedule and budget, and managing project quality and risks. Produce complete design documents for an instructional system, including budget, justification, implementation schedule, and evaluation plan.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5000 Master's Report or Thesis
Prerequisites: Consent of instructor.
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 5053 Learning in a Digital Age
Description: Foundational understanding of digital learning including history, definitions, common assumptions, cultural competence, ethical issues, standards, methods, and models to maximize digital learners' experience in educational and corporate settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5103 Advanced Computing Applications in Education
Description: In-depth exploration of advanced technology use in teaching and learning environments. Examination of current issues of technology use in instructional settings. Previously offered as CIED 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5113 Digital Media Production for Instruction
Description: Introduction to the production of digital media for instruction. Topics covered: Instructional design for digital media, message design, use of graphics, multimedia development tools. Current research, trends, tools and issues in media production will also be addressed. Previously offered as CIED 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5123 Academic Writing in the Learning Sciences
Description: Introduction to the structure and organization of academic writing appropriate for a Creative Component, project, thesis, or doctoral dissertation. Students will be expected to prepare a proposal for their special topic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5153 Computer-Based Instruction Development
Description: Examinations of curriculum strategies, related research issues, and techniques for developing computer-based instruction. Students will develop and evaluate computer-based instruction with case studies. Previously offered as CIED 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5203 Foundations of Educational Technologies
Description: A general introduction to the field of Educational Technology. Define, describe, and critically evaluate the foundations, issues and careers in educational technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5303 Digital Games and Simulations in the Classroom
Description: Introduces students to the philosophies, theories, processes, and practices of integrating digital games and simulations into the classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5403 Creativity and Innovation in Educational Technology
Description: In-depth examination of a variety of innovation technologies and engagement in pedagogies and technologies associated with creativity, innovation and invention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5503 Facilitating Online Learning
Description: Apply knowledge of pedagogy, standards for online teaching, online community building, and teaching with technology to design and facilitate online learning environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5703 Advanced Virtual and Augmented Reality for Social Change
Description: Explores evidence-based design/research informed design through the use and application of Virtual Reality (VR) and Augmented Reality (AR) technology using a multidisciplinary approach to solve current societal problems by applying social science practices with innovative technology. Learn how to develop and apply 3D content in VR/AR. Turn your creative ideas into useful applications. This course is open to all graduate students. No prior coding or design experience is required. Same course as DM 5083.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Educ Found Leadersh & Aviation

EDTC 5720 Educ Workshop
Description: For teachers, principals, superintendents and supervisors who have definite problems in instruction or administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 5753 Introduction to Instructional Design
Description: Introduction to the systematic design of instruction. Topics covered: Analysis, design, development, implementation, and evaluation of instructional materials in a variety of educational settings. Current research, trends and issues in instructional design will be addressed. Previously offered as CIED 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5763 Introduction to Assistive Technology
Description: Introduction to assistive technologies and the application of assistive technologies to formal and informal situations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5773 Instructional Systems Management
Description: Principles of management relevant to instructional systems, including, but not limited to: project, resource, quality, change, financial, information technology, human resource, program evaluation, product, knowledge and performance management. Previously offered as CIED 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5783 Learning and Teaching with Mobile Devices
Description: Exploring the potential of learning with mobile devices in formal education settings and factors to consider when designing an effective and innovative mobile learning environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5793 Design-Based Research
Description: Design-Based Research seeks to contribute to theory-building about learning and the design of learning environments. Course provides an examination of the history of this research approach along with related current literature, commentary and research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 5850 Directed Study
Prerequisites: Consent of instructor.
Description: Directed study for master's level students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6000 Doctoral Dissertation
Description: Required of all candidates to the Doctor of Education degree. Credit is given upon completion of the thesis. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6153 Advanced Computer-Based Instructional Development
Prerequisites: EDTC 5153 or consent of instructor.
Description: Design of user-friendly instructional interfaces and computer-based learning management systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6283 Performance Improvement Technology
Description: Overview of performance improvement, as defined within the field of Educational Technology. Training and non-training interventions to improve performance in learning situations. Sample topics may include needs assessment, motivation systems, compensation systems, job aids, or electronic performance support systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6333 Human Computer Interaction
Prerequisites: EDTC 5153 or consent of instructor.
Description: Human cognitive architecture, information processing, and design of effective educational, computer-based interfaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6423 Trends and Issues in Educational Technology
Description: Selected problems, issues and trends in educational technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6553 Media and Learning in Educational Technology
Description: Exploration of topics from media studies relevant to educational technology, especially online learning. Reading of classic works in media studies in tandem with related contemporary works addressing new developments in educational technology, online learning, online gaming, and social media for learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6613 Instructional Systems Design
Description: Overview of theoretical foundations of the systematic design of instruction and their applications in design practice including analyzing, defining, sequencing, developing, and validating instructional components. Current research, theory, and future directions in design theory and practice will be addressed. Course previously offered as EPSY 6613 and ABSE 6613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6713 Introduction to Learning Sciences
Description: Introduction to the Learning Sciences and its theoretical frameworks, research methods, and current scholarly issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6793 Advanced Design-Based Research
Description: Exploration of current DBR literature, research and research implementations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EDTC 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6880 Internship in Education
Prerequisites: Consent of instructor.
Description: Directed off campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EDTC 6910 Practicum
Prerequisites: Consent of instructor.
Description: Helps the student carry out an acceptable research problem (practicum) in a local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 1003 Learning to Learn
Description: Learning effective strategies to succeed through online individualized assessment, positive attitude development, habit change, development and self-efficacy and self-regulation. Learning tools include goal setting, developing information skills, questioning, transformational learning, presentation and information use skills. Analyzing class materials, problem solving, creativity, teacher analysis, reflection, developing classroom motivation and appropriate classroom behavior to lead to classroom success.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 1013 Emotional Skills in Learning Success
Description: Striving for academic excellence through self awareness and growth in areas of social and emotional development. Interpersonal and intrapersonal skills, leadership skills, and self-management skills in the context of emotional intelligence theories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 2513 Foundations of Ethical Leadership
Prerequisites: 24 hours in good standing; admission into the UGLC or consent of instructor.
Description: Introduces students to a variety of theoretical views of ethics and leadership studies through the identification of contemporary ethical challenges and the development of foundational leadership skills to meet those challenges. Same course as HESA 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3063 Critical Thinking, Problem Solving, and Creative Processes
Description: Learning theory in developing strategies for promoting critical thinking, problem solving, and creativity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3110 Educational Psychology Seminar
Description: Problems, trends, contemporary topics, and pertinent issues in educational psychology. Concentrated study of selected areas not usually addressed in the undergraduate curriculum. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 3113 Psychological Foundations of Childhood
Description: The child from conception to puberty with focus on educational implications of development in cognitive, affective and psychomotor domains. Previously offered as ABSE 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3213 Psychology of Adolescence
Description: The adolescent from pubescence to adulthood with focus on educational implications of development in cognitive, affective and psychomotor domain. Course previously offered as ABSE 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3413 Child and Adolescent Development
Description: The person from conception through adolescence with focus on education implications of development in cognitive, affective, social, and physical domains. Course previously offered as ABSE 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3533 Motivating Learners
Description: Current practices in learner motivation, school age through adult. Developing positive attitudes and building community in classrooms to stimulate motivation of all learners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4063 Exploration of the Creative Experience
Description: The creative experience in art (visual to performing), articulation (oratory to literature), thought (philosophy to psychology), business (practices to products), leisure (procreation to recreation). Western and Eastern viewpoints. Personal creative development fostered by modeling and by investigation of proven techniques. A wide range of creative endeavor with an experiential approach. Future-oriented applications. Course previously offered as ABSE 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4223 Psychological Foundations of Learning and Instruction
Description: Instructional psychology focusing on the study of teaching and learning theory as part of an instructional program to deal with individual, cultural, and environmental differences. Case studies and group discussion emphasizing motivation, planning, evaluation, classroom problems and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4503 Ethical Leadership for the Common Good
Prerequisites: EPSY 2513 or HESA 2513.
Description: Builds on foundational model of ethical theory and leadership studies through application of ethical theory and leadership skills to specific contexts and evaluation of their results. Same course as HESA 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4533 Competency Motivation
Description: Development of competence through the application of research strategies in achievement motivation. Examines intellectual ability, motives, goals, attributions, competence perceptions and values as they relate to developmental issues, demographics, contextual influences, culture, and self-regulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4743 Learning, Motivation, and Social Justice (G)
Description: Foundational principles of learning, motivation, and global identity; critical analysis of contemporary cultures; and application of learning in addressing global issues of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension

EPSY 5000 Master's Thesis
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the master's program in school and educational psychology. Credit given and grade assigned upon completion and acceptance of the thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5001 Colloquium: Educational Psychology
Description: Discussion of issues related to graduate study in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 5103 Human Development in Psychology
Description: Introduction to basic research and theories of cognitive, emotional and social development. Applications to educational and family settings. Course previously offered as ABSE 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5123 Academic Writing in the Learning Sciences
Description: Introduction to the structure and organization of academic writing appropriate for a Creative Component, project, thesis, or doctoral dissertation. Students will be expected to prepare a proposal for their special topic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5320 Seminar in Educational Psychology
Description: In-depth exploration of contemporary topics in educational psychology. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5403 Issues in Adolescent Development
Description: Current issues in adolescent development in an educational context and culture, including self, family, peers, school and work relationships. Gender differences within culture, race and class examined. Current dilemmas explored using critical theory and action research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5463 Psychology of Learning
Description: Evaluation of, and application to, education, psychology, and other learning contexts of research-based, contemporary psychological theories of human learning. Course previously offered as ABSE 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5473 Psychology of Adult Learning
Description: Analysis of the psychological foundation of adult learning both in and out of learning programs across the lifespan. Differentiates among adults of all ages in terms of practice and performance in a variety of settings, including classroom, community, and work environments. Examines the intellectual, social, cultural, emotional, motivational, and performance components of the psychology of adult learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5553 Motivation in Educational Contexts
Description: An overview of empirically informed theories of motivation from a psychological perspective with emphasis on contextual influences in and outside the classroom. Topics include beliefs about ability and intelligence, goals, casual attributions, the value of academic tasks, and psychological needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5603 Developmental Issues in Instruction
Prerequisites: Three hours in developmental psychology, educational psychology or consent of instructor.
Description: Developmental issues in instruction at all levels from early childhood through adulthood. Specific impacts of developmental stages on the acquisition and retention of cognitive, affective and psychomotor development at various levels and contexts will be examined and applications to instruction will be provided.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5663 Creativity for Teachers
Description: Theoretical origins of creativity and their concomitant applications in the learning environment. Blocks to creative thinking, imagination, imagery, creativity testing, developing ideas and innovations, creative problem solving and teaching techniques and methods to maximize creative potential in all kinds and types of students. Course previously offered as ABSE 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5713 Transpersonal Human Development
Description: Human development in terms of individual consciousness, focusing on the implications of such extraordinary states of consciousness as those associated with hallucinogenic drugs and mystical religious experience. Integration of psychological and religious interpretations of development. Applications to practical problems in education and psychology. Course previously offered as ABSE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5720 Educational and School Psychology Workshop
Description: Workshop on various topics related to educational and school psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5773 Individual Intellectual Assessment
Description: Intensive study of various intelligence and achievement batteries, including the Wechsler scales and the Woodcock Johnson Tests of Achievement. Emphasis and practice in administration, scoring, interpretation. Further emphasis on issues related to report writing, non-discriminatory assessment, and the history of intelligence testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5963 Developing Resources to Support Educational Programs
Description: Development, management and evaluation of programs in intra- and extra-class settings. Program types include parent, volunteer, mentor, tutor, group sponsors in technology, business involvement, curricular enhancement and service learning. Developing community and business interest through public relations, financial development, grantsmanship or resource information sources. Developing Internet resources to support learners. Course previously offered as EPSY 5962.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5983 Instructional Effectiveness in Higher Education
Prerequisites: Graduate standing or consent of instructor.
Description: For teaching assistants in all areas. The many aspects of teaching in higher education. Both theory, e.g., traditional instructional design and practical applications, e.g., how to create a lecture. Issues related to instructional design, development of classroom climate, understanding and assessment of students, classroom practices, materials creation for teaching and development of support systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the doctoral program in educational school psychology. Credit given and grade assigned upon completion and acceptance of the doctoral thesis. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6001 Colloquium II: The Job Search in Educational Psychology and Related Fields
Description: Discussion of issues related to the job search process in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 6043 Adult Development
Description: Theory and research concerning human development during the adult years. Practical applications for serving adult populations in education and education-related settings. Course previously offered as ABSE 6043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6110 Seminar in School Psychology
Description: An assessment of psychological techniques applied to problems encountered in the internship. Course previously offered as ABSE 6110. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6153 Advanced Research in Educational Psychology
Description: Research in educational psychology in areas such as recent trends in the field, exploration of research designs in Educational Psychology, writing and dissemination of research, ethics and collaboration, and development of skills to be competent consumers of the literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6163 Emotion and Cognition
Description: The relationship between emotion and cognition as it relates to knowing and learning. History, wisdom and the interdependence of affect and cognition, the effects of mood on memory, emotion in feminist epistemology, the role of feeling in the writing process, intuition, and narrative thought. Exploration of potential research. Course previously offered as ABSE 6163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6213 Advanced Educational Psychology
Prerequisites: Three hours in developmental psychology or consent of instructor.
Description: Learning and its effect upon coping and adjustment. How learning, environmental and personality factors interact to change human behavior. Course previously offered as EPSY 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6323 Psychological Consultation
Prerequisites: Admission to graduate program in the SAHEP or psychology program.
Description: Models and strategies for the delivery of special services in the schools and other agencies that focus on serving the mental health needs of children, adolescents and adults. The use of consultation as a problem solving alternative to the assessment/label approach. Same course as CPSY 6323, students can receive credit in only one of the courses. Course previously offered as ABSE 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6443 Theories and Problems in Educational Psychology
Prerequisites: Admission to the doctoral program in educational psychology or consent of instructor.
Description: Theoretical foundations and nature of the problems studied in educational psychology; current issues and historical overview.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6460 Internship in Educational Psychology
Prerequisites: Consent of instructor.
Description: May be repeated for credit when work assignment varies. Required of all teaching assistants in educational psychology during the first semester of each new teaching assignment. Includes cooperative planning and evaluation. Course previously offered as ABSE 6460. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6533 Human Motivation
Description: A theoretically-oriented approach to the concept of motivation; essential precursors to human behavior and applications to the solution of real and hypothetical problems. Course previously offered as ABSE 6533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6850 Directed Readings in Educational and School Psychology
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing in educational and school psychology. Course previously offered as ABSE 6850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6880 Internship in Education
Prerequisites: Admission to advanced graduate program and consent of area coordinator.
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Course previously offered as ABSE 6880. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 1113 Orientation in Student Athletics
Description: To assist students to better understand and comply with the academic and athletic demands on student-athletes at a NCAA Division I university, including NCAA compliance issues. Previously offered as SDEV 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 1512 President's Leadership Council I
Prerequisites: Selection to President's Leadership Council.
Description: Ethical leadership concepts, theories, and competencies, introduced through the study of leadership, civic engagement, and ethics. May not be used for degree credit with HESA 3013.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 1521 President's Leadership Council II
Prerequisites: Selection to President's Leadership Council.
Description: Observe, analyze, and participate in leadership experiences and civic engagement activities. May not be used for degree credit with HESA 3013.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 2191 Residential Learning: Philosophies for Student Success
Description: Examines leadership and builds personal competencies using the lens of personal identity combined with the three-pillar student affairs philosophy of student leadership, community living, and student learning.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 2513 Foundations of Ethical Leadership
Prerequisites: 24 hours in good standing; admission into the UGLC or consent of instructor.
Description: Introduces students to a variety of theoretical views of ethics and leadership studies through the identification of contemporary ethical challenges and the development of foundational leadership skills to meet those challenges. Same course as EPSY 2513. Previously offered as EDLE 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3013 Leadership Concepts
Prerequisites: 12 hours completed course work.
Description: Increases undergraduate student competence through the study of leadership concepts. Stresses communications, decision-making, leadership styles and theories and group dynamics. Attempts integration of theoretical concept with reality of application within the university community. Previously offered as SDEV 3013 and ABSE 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3091 Student Development Theory for Orientation Leaders
Prerequisites: Consent of instructor.
Description: Theories of student development. Topics include helping skills, student leadership community building, communication skills, and multicultural sensitivity. Application of theory to university orientation programs. Previously offered as SDEV 3091.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3092 Student Development Training for Resident Assistant
Description: Theories of student development. Topics include helping skills, community building, communication skills, and multicultural sensitivity. Application of theory to living groups. Previously offered as SDEV 3092 and ABSE 3092.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3113 Civic Leadership
Prerequisites: HESA 3013 or permission from instructor; and HESA 2513.
Description: Exploration of opportunities for citizens to act as leaders in the community where they live and work. Identifying/practicing leadership skills, habits and dispositions useful in working with local non-governmental organizations, municipal employees and elected officials to solve public problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3613 International Perspectives on Ethics and Leadership
Description: Faculty-led international travel course focused on applying leadership and ethics theories in culturally diverse environments. Each class travels to a different international destination and includes the history of the region. Requires pre-trip and post-trip meetings and assignments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 3910 Current Issues in Leadership
Description: Problems, trends, contemporary topics, and pertinent issues in leadership and/or student leadership development. Students will undertake concentrated study in selected areas. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4173 Careers in Higher Education and Student Affairs
Description: Introduces individuals to careers in the higher education and student affairs profession. Topics include historical understandings of American higher education and the emergence of student affairs, theories of college student development, and potential careers in higher education and student affairs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4513 Ethical Leadership for the Common Good
Prerequisites: HESA 2513 or EPSY 2513.
Description: Builds on foundational knowledge of ethical theory and leadership studies through application of ethical theory and leadership skills to specific contexts and evaluation of their results. Same course as EPSY 4503. Previously offered as EDLE 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 4910 Leadership in Practice
Prerequisites: HESA 2513 or HESA 3013.
Description: The art and practice of leadership in community settings. Typically taking in the final year of coursework in the undergraduate minor in Leadership. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 5113 Civic Leadership and Community Engagement
Description: Focuses on the role of community-oriented people and institutions as leaders in their communities. Entities receiving particular attention include education, public health and health care, and non-governmental agencies/organizations working to make their communities more equitable.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5173 Introduction to Student Affairs
Description: History, philosophy, and goals of student affairs units in colleges and universities; emphasis on practitioner roles and responsibilities. Previously offered as SDEV 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5213 Student Development Theory
Description: Examination of theories describing patterns of growth and development during the college years. Implications for the design of education practice on the college campus. Previously offered as SDEV 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5223 Career Development for College Students
Description: In-depth exploration of issues and contemporary theory related to the topic of career development for college students. Previously offered as SDEV 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5233 Advanced Student Development Theory
Prerequisites: HESA 5213.
Description: Focus is on contemporary and emerging theories of traditionally aged college student development from cognitive, spiritual, gender, racial identity, and student success families. Previously offered as SDEV 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5320 Seminar in Student Development
Prerequisites: Consent of instructor.
Description: In-depth exploration of contemporary problems in student development and student affairs administration. Previously offered as SDEV 5320. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5333 Introduction to Hidden Student Populations
Description: Introduction and exploration of hidden student populations across the secondary and postsecondary systems. Consideration of theory, research, and related practitioner concepts, as well as leadership and policy considerations. Previously offered as SDEV 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5340 Hidden Student Populations
Prerequisites: HESA 5333.
Description: Collection of six-week, one-hour courses, each of which provides in-depth study of a selected hidden student population. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5343 Assessment Techniques for Higher Education and Student Affairs Professionals
Description: General orientation to assessment for professionals in higher education and student affairs. Applied assessment concepts and practices in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5433 Practicum in Hidden Student Populations
Prerequisites: HESA 5333 and admission to the graduate certificate in hidden student populations.
Description: Practicum opportunities serving hidden student population(s) under supervision of, or concert with, college or university service units and/or other appropriate on- and off-campus settings. Course is the culminating experience in the graduate certificate in hidden student populations. Previously offered as SDEV 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5463 Legal Issues in Student Affairs
Prerequisites: HESA 5173 or HESA 6173.
Description: Legal issues confronted by entry-level student affairs practitioners, how to recognize these issues, and how to act within the parameters of the law. Previously offered as SDEV 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5653 Research to Practice in Higher Education and Student Affairs
Description: Addresses the research-to-practice-to-research cycle for higher education professionals. Focuses on developing skills and knowledge for understanding, critiquing, and applying research to practice, as well as the role of practitioners in identifying additional areas of needed research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5720 HESA Creative Component
Prerequisites: Instructor approval.
Description: For approved students to complete the creative component. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 5733 Environmental Theory and Student Affairs
Prerequisites: Consent of instructor.
Description: Examination of campus environmental theory providing an understanding of campus environments approach to student affairs practice. Previously offered as SDEV 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5813 Leadership and Development of Higher Education Organizations
Description: Leadership theory and development of higher education institutions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5903 Capstone in Higher Education and Student Affairs
Description: Refine analytical frameworks and hone skills for responding to administrative challenges and opportunities in U.S. institutions of higher education. The course also provides an accountability structure to complete the creative component and professional portfolio requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5953 Organizational Development for Higher Education
Description: Scholar-practitioner approaches to understanding and developing higher education organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5973 Foundations of Higher Education
Description: Overview of the historical background and philosophical foundations of American higher education. Previously offered as EDLE 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 5983 Administrative Issues in Higher Education
Description: Overview of the organization and administration operations and analyses of social, political and legal influences on colleges and universities. Previously offered as EDLE 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Required of all candidates for doctorate in Educational Leadership and Policy Studies. Offered for variable credit, 1-9 credit hours, maximum of 15 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6123 College Student Sexuality
Description: Exploration of historical and contemporary knowledge in the areas of college student sexuality, postsecondary sexual health education, gender diverse identities, and sexual identity development. Consideration of the construction of collegiate identities over time, and examination of how institutions of higher learning have influenced, regulated, or intersected with student sexualities, identities, and education throughout history and into present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6163 International Issues in Higher Education
Description: Examines current international issues in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6173 Administrative Issues in Student Affairs
Description: Develops an understanding of the history, philosophy, student life, critical issues and administration of student personnel work in higher education. Previously offered as SDEV 6173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6213 The Diverse College Student, Paradigms and Practice
Prerequisites: Admission to doctoral program or instructor permission.
Description: Contemporary and emerging theories and models of development for students of diverse characteristics and backgrounds as foundations for research-to-practice related student-facing programs and services. Previously offered as SDEV 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6233 Critical Issues in Higher Education and Student Affairs
Description: Issues that have shaped and are shaping the practice of higher education and student affairs administration in American society. Previously offered as EDLE 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6243 Internship in Higher Education and Student Affairs I
Prerequisites: Consent of instructor.
Description: Work and study opportunities under supervision in higher education and student affairs functional areas and/or college or university administrative units, and other appropriate work settings. Previously offered as HESA 6220.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6253 Internship in Higher Education and Student Affairs II
Prerequisites: Consent of instructor and HESA 6243.
Description: Work and study opportunities under supervision in higher education and student affairs functional areas and/or college or university administrative units, and other appropriate work settings. This course represents a second internship that follows HESA 6243.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6463 Higher Education Law
Description: National and state constitutional provisions, laws, and court cases concerning higher education. Considerable legal research required. Previously offered as EDLE 6463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6553 Current Issues in Higher Education Policy
Description: Policy development, advocacy, and impact related to emerging issues and directives as they relate to higher education institutions and the students and communities they serve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6573 Institutional Research and Policy Analysis
Description: Introduction to the processes and procedures of institutional research and policy analysis, as they are utilized within the context of American higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6583 The Impact of College on Students and Society
Description: The psychological and sociological impact that attending four-year colleges and universities has on undergraduates from their freshman year until they graduate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6603 Organizational Theory and Administration of the Higher Education Organization
Description: Selected theories in organizational structure, culture, politics and complexity. Functions and principles of administering higher education organizations considering internal, external and contemporary forces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6683 The U.S. Two-Year/Community College
Description: The U.S. two-year/community college including historical and philosophical development, contemporary mission, curricula, students and the learning process, faculty and instruction, administration and governance, and funding. Principles, practices and problems of two year/community colleges in the U.S. Previously offered as EDLE 6683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6703 Finance in Higher Education
Description: Problems and prospects of financing American education, with in-depth discussion of selected topics, e.g., social capital, federal aid, faculty salaries and state support. Previously offered as EDLE 6703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6710 Special Problems in Higher Education and Student Affairs
Description: Focused study of recurrent or unique problem(s) in higher education and student affairs. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6713 Effective Teaching in College and Universities
Description: Relevant research and practice about effective college teaching, role of faculty in higher education settings, and development of teaching strategies and lessons for application in college classrooms. Previously offered as EDLE 6713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6733 Leadership in Contemporary Higher/Postsecondary Systems I
Prerequisites: Admission to doctoral program or instructor permission.
Description: Considers contemporary demands and frameworks for leadership and change in higher education organizations. This course is intended for people who are currently or aspire to mid- to senior level positions in higher/postsecondary education or adjacent organizations. Previously offered as EDLE 6733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6753 Historical Development of U.S. Higher Education
Description: History and development of U.S. higher education, studies of objectives and functions of institutional types and of students and faculty. Introduction of tools and methods appropriate for employing historical approaches to the study of higher education and student affairs. Previously offered as EDLE 6753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6803 Administration in Higher Education
Description: Functions and principles of administration in higher education from historical and contemporary points of view. Both internal and external forces acting on the institution treated. Previously offered as EDLE 6803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6813 Conceptualizing the Study of Higher Education
Prerequisites: Admission to doctoral program or instructor permission.
Description: Exploration of research paradigms, as well as theories of organizational behavior, student development, and socio-cultural phenomena, suitable for conceptualizing the study of higher education and student affairs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6823 Leadership in Contemporary Higher/Postsecondary Systems II
Prerequisites: HESA 6733 or instructor permission.
Description: Leadership and the implications of leadership across higher education/postsecondary systems, contexts, cultures and time. Previously offered as EDLE 6823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6833 College and University Presidency
Description: The role and function of the presidency. For those who anticipate a career in college and university administration or a related management position. Previously offered as EDLE 6833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6843 The Academic Department
Description: Organization and administration in higher education emphasizing an analysis of the academic department and its leader, the department head. Previously offered as EDLE 6843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6850 Directed Readings in Higher Education and Student Affairs
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

HESA 6853 Research Design for Higher Education
Prerequisites: HESA 6813
Description: Exploration of advanced integrated research strategies and the development of designs and methods supporting the field of higher education and student affairs administration. Previously offered as EDLE 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6863 University and College Campus Culture
Description: This course examines the concept of institutional and collegiate culture as a lens to understanding higher education institutions and their various stakeholders. Previously offered as EDLE 6863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6870 Seminar in Higher Education and Student Affairs
Description: Topical issues related to higher education and student affairs. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

HESA 6903 Dissertation Proposal Writing
Description: Assists doctoral candidates in the Higher Education and Student Affairs program with the development of Chapters One through Three of their dissertation proposals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 1011 Library and Internet Information Competencies
Description: Introduction to the organization, retrieval and evaluation of information found in research libraries and on the Internet. Development of information-seeking competencies using both print resources and electronic databases.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5013 Library Media Center in the Schools
Description: Effective utilization of the centralized school media center for the teaching-learning process. Course previously offered as LBSC 3050.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5113 Selection and Organization of Informational and Educational Resources
Description: Selection, evaluation, organization and use of informational and educational resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5413 Organization of Information
Description: Basic principles of the organization of information in schools. Information and knowledge organization techniques that exist or are emerging and focuses on standards and tools that are used in educational environments. Course previously offered as LBSC 4414.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5613 Library Networks and Databases
Description: Introduction to the organization, retrieval and evaluation of information found in research libraries and on the Internet. Development of information-seeking competencies using both print resources and electronic databases.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

LBSC 5823 Administration of School Library Media and Technology Programs
Description: Vision of, planning, organizing, policy making, staffing, budgeting, decision-making and evaluating a standards-based school library media or school technology program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5013 Research Design and Methodology
Description: An introduction to the concepts of research design, methodology, sampling techniques, and internal/external validity and the scientific method in educational problem solving. Critical analysis of educational research studies and the writing of proposals. Previously offered as ABSE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5320 Seminar in Research, Evaluation, Measurement and Statistics
Prerequisites: Consent of instructor.
Description: In-depth exploration of contemporary problems of research, evaluation, measurement, and statistics. Previously offered as ABSE 5320. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5330 Practicum in REMS
Description: Apply skills and concepts of educational research, evaluation, measurement and statistics (REMS) and gain professional experience in a mentored applied setting. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 5373 Educational Measurements
Description: Appropriate applications of tests in the schools. Development of teacher-made tests, selection of standardized tests, interpretation of test results, understanding of the statistics reported in testing literature, uses of test results, and recent developments in educational measurement. Previously offered as ABSE 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5953 Statistical Methods in Education
Description: Statistical methods needed by conductors and consumers of research in education and the behavioral sciences. Introduction to interpretation and application of descriptive and inferential statistics. Previously offered as ABSE 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 5963 Computer Applications in Nonparametric Data Analyses
Description: Presents popular nonparametric statistical methods as applied to educational and behavioral research. Emphasis on conceptual, rather than mathematical development, application, use of computer for data analysis, and substantive interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6000 Doctoral Dissertation
Prerequisites: Consent of instructor.
Description: Required of all candidates for doctorate in applied behavioral studies. Credit given upon completion and acceptance of dissertation. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 6003 Analyses of Variance
Prerequisites: Previous completion of both a graduate level introductory statistics course and research methods course are highly recommended.
Description: A thorough examination of analysis of variance procedures as they relate to principles of experimental design in education and behavioral sciences utilizing SPSS. Previously offered as ABSE 6003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6013 Multiple Regression Analysis in Behavioral Studies
Prerequisites: REMS 6003 or consent of instructor.
Description: Applications of multiple regression as a general data analysis strategy for experimental and non-experimental research in behavioral sciences. Previously offered as ABSE 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6023 Psychometric Theory
Prerequisites: REMS 6013 or consent of instructor.
Description: Theoretical basis for applying psychometric concepts to educational and psychological measurement. The Classical True Score model and applications to instrument development and design of studies for evaluating instrument quality. Previously offered as ABSE 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6033 Factor Analysis in Behavioral Research
Prerequisites: REMS 6013 or equivalent.
Description: In-depth analysis of principal components and factor analysis methods, including maximum likelihood methods. Confirmatory factor analysis methods are also introduced.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6320 Doctoral Seminar in REMS
Prerequisites: Permission of instructor.
Description: Theory and applications of selected advanced research and evaluation methods. Previously offered as REMS 6323. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

REMS 6373 Program Evaluation
Prerequisites: REMS 5013 and admission to a doctoral level program or consent of instructor.
Description: History, contexts, purposes and approaches of evaluating programs in a variety of settings. Emphasis on logic models and evaluation planning, design, data collection, analysis, reporting, and use of results. Applications include writing an evaluation plan for a real-world program. Previously offered as ABSE 6373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6383 Program Evaluation II
Prerequisites: REMS 6373.
Description: Builds upon students' knowledge, understanding and application of program evaluation approaches and techniques. Emphasis on practical application of knowledge and standards by conducting a program evaluation for an existing program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6663 Applied Multivariate Research in Behavioral Studies
Prerequisites: REMS 6013 or consent of instructor.
Description: An overview and analysis of multivariate procedures commonly applied to educational and behavioral research. Emphasis on conceptual design and application of these procedures. Previously offered as ABSE 6663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6673 Item Response Theory
Prerequisites: REMS 6003 and REMS 6023 or consent of instructor.
Description: Concepts, theory, and application of item response theory (IRT) in educational and psychological fields with computer applications for data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6683 Multilevel Modeling Methods in Education
Prerequisites: REMS 5953, REMS 6003, REMS 6013 or consent of instructor.
Description: Multilevel modeling analyses relevant to research in educational and related sciences. Emphasis on practical, hands-on development, analysis, and interpretation of multilevel models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6693 Structural Equation Modeling for Behavioral and Educational Research
Prerequisites: REMS 6003, REMS 6013, REMS 6033, and REMS 6663 or permission of instructor.
Description: Concepts, theory, and application of SEM in behavioral research with computer applications for data analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

REMS 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 2003 Religious Diversity & Education (D)
Description: Explores philosophical and practical questions relating to the role of religion in education in culturally diverse democracies, relevant school law and policy, and instructional and curricular challenges faced by teachers and school leaders. Previously offered as SCFD 2001.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

SCFD 2333 Cineculture: International Issues (GS)
Description: Using documentary film, examines international issues relating to broader topics of race/ethnicity, gender, class, sexuality, (dis)ability, etc., through scholarship from the field of social foundations of education (history, philosophy, sociology, and anthropology). Previously offered as SCFD 2331.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension, Society & Human Behavior

SCFD 3223 Role of Teacher in American Schools (D)
Description: An introduction for those students wishing to pursue the teaching profession. An overview of teaching and policy in American schools and background in history, theory, and philosophy of education. Topics to be addressed include: diversity in schools; school governance; funding and organization; ethics and professionalism; curriculum; legal issues; pedagogy and current issues in education. Previously offered as CIED 3223 and CIED 2113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Diversity

SCFD 4123 History of Education (S)
Description: The development of major educational ideas and programs with emphasis on the growth of public education in the United States from the Colonial period to the present. Previously offered as CIED 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: Society & Human Behavior

SCFD 4320 Special Topics in Social Foundations
Description: Focused exploration of a contemporary problem or issue in social foundations. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 4913 International Issues and the Role of the School
Description: International issues that shape educational perspectives and practices locally and globally. Consideration of major issues in education, such as the effects of globalization, the purpose of and right to an education, gender, indigenous knowledge, and global citizenship. Previously offered as CIED 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5000 Master's Report or Thesis
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report, or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5020 Master's Final Project
Prerequisites: Instructor approval.
Description: For students to complete the creative Master's project or experiential fieldwork. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5023 The Comparative Approach: Theory, Method, and Practice
Description: Provides necessary analytical and practical skills needed for the application of comparative method and its usefulness for research within the Social Sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5123 History of Education
Prerequisites: Graduate standing.
Description: History of elementary, secondary, and higher education with emphasis on Western society and the American schools. Discussion of historiography and historical methods with research emphasis on the impact of institutional development in a pluralistic society. Previously offered as SCFD 5823 and SCFD 6823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5223 Role of Teacher in American Schools
Prerequisites: Graduate level standing.
Description: An introduction for those students wishing to pursue the teaching profession. An overview of teaching and policy in American schools and background in history, theory, and philosophy of education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5713 Educational Philosophy
Description: Advanced study of key philosophers in Western history whose ideas have greatly influenced educational theories and practices. Contemporary philosophical debates of educational issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5720 Education Workshop
Description: For teachers, principals, superintendents, and supervisors who have definite problems in instruction or administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5850 Directed Study
Description: Directed study for master's level students. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5873 Culture, Society and Education
Description: Cultural assumptions, constructions and social practices in childhood and education in a variety of societies. Children's family, community and school lives. Anthropological and comparative perspective.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5883 Educational Sociology
Description: The manner in which social forces and institutions influence education and the educational system in the United States. Previously offered as CIED 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5913 Introduction to Qualitative Inquiry
Description: Examination of the major approaches and fieldwork techniques of qualitative research as well as the challenges associated with conducting this form of inquiry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5923 Popular Culture and Education
Description: Investigation and analysis of the ways popular culture socializes and educates young people in social and school norms. Considers connections among popular culture, youth identity, relationships, resistance and activism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 5990 Problems and Issues in Social Foundations
Description: In-depth exploration of a contemporary problem or issue in the social foundations of education. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 5993 Urban Education
Description: Examines the historical, political, economic and sociocultural contexts of urban education as it pertains to students, teachers, administrators, and community members. Previously offered as SCFD 5998.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6023 Comparative Education
Description: A systematic investigation of educational institutions in various nations for the purpose of an enlarged, critical view of American education. Researching specific transnational educational theories. Previously offered as SCFD 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6113 Theoretical Foundations of Inquiry
Description: Exploration of the history and philosophical assumptions undergirding theories, methods and issues of ethics and rigor associated with both qualitative and quantitative research in education and related fields. An in-depth overview of research paradigms through readings and discussions. Foundational doctoral-level research course. Previously offered as EDLE 6853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6123 Qualitative Research I
Prerequisites: Beneficial to have taken REMS 5013 and either SCFD 6113 or EDLE 6853 or HESA 6853, as well as a course introducing doctoral-level research, such as CIED 6503.
Description: The traditions, philosophies, approaches, and methods of qualitative research, including participant observation, interviewing, and preliminary data analysis. Prior knowledge/experience with literature reviews and research design is expected.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6163 Ethnography
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Theoretical and historical grounding of ethnography as a methodology, exposure to diverse ethnographic approaches such as autoethnography, critical, visual and feminist ethnographies, and opportunities to conduct a small scale ethnography project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6173 Visual Methodologies
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Practical guidance, theoretical orientation, and ethical considerations in the creation and interpretation of visual culture and its use with different qualitative methodologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6183 Narrative Research Methodologies
Prerequisites: SCFD 5913 or SCFD 6123, or other graduate level qualitative methods course.
Description: Theoretical grounding, research design, and practice in qualitative narrative research methodologies such as narrative inquiry, auto/biography and life history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6190 Qualitative Research: Selected Methods
Prerequisites: Honors Program participation, junior standing.
Description: Study of select qualitative methods to get a “hands on” feel for the method. Methods include classic and new approaches such as arts-based, biography, case study, discourse analysis, ethnography, grounded theory, historical social science, phenomenology, writing and representation. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6193 Qualitative Research II
Prerequisites: SCFD 6123, SCFD 6133 or consent of instructor.
Description: Various approaches to qualitative data analysis, including the use of computer applications. Additional attention to issues of writing, representation, reflexivity, and reciprocity. Practice in analytic techniques and writing research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6443 Ethics and Moral Education
Description: Interdisciplinary perspective of traditional and contemporary ethical theories, focusing on application to professional practice and moral education. Moral development, the moral life, feminist ethics, and character education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6501 Curriculum and Social Foundations Doctoral Seminar I
Description: Orientation to doctoral study primarily for students in the PhD program in Curriculum and Social Foundations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6511 Curriculum and Social Foundations Doctoral Seminar II
Description: Orientation to the professoriate primarily for students in the PhD program in Curriculum and Social Foundations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6630 Topics in Philosophy Education
Description: Consideration of topic or topics (e.g. childhood and modern subjectivity) that are of great concern to the field of philosophy of education. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Lecture: 3-6 Contact: 3-6
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6850 Directed Reading
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6853 Anthropology of Education
Description: Understanding and critically reflecting on educational issues from a cultural anthropological perspective. Developing the knowledge and skills needed to understand cultural influences on teaching and learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6880 Internship in Education
Description: Directed off campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6883 Transforming Pedagogies
Description: Contemporary pedagogical theories and school reform initiatives, including origins, purposes, underlying philosophical assumptions, cultural contexts, and implications for schooling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6910 Practicum
Description: The student carries out an acceptable research problem (practicum) in a local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

SCFD 6983 Diversity and Equity Issues in Education
Description: Many social, historical and cultural constructions of "difference" and the impact in personal and professional relationships in education and related human service fields. Categories of race, class, and gender, but may also include ethnicity, sexual orientation, and special needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

SCFD 6990 Seminar in Social Foundations
Description: In-depth seminar focusing on a contemporary problem or issue in the social foundations of education. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Undergraduate Programs

- Aerospace Administration and Operations: Aerospace Security, BS (p. 2146)
- Aerospace Administration and Operations: Aviation Management, BS (p. 2149)
- Aerospace Administration and Operations: Professional Pilot, BS (p. 2152)
- Aerospace Administration and Operations: Technical Service Management, BS (p. 2154)

Graduate Programs

Aviation and Space (AVED)

Kathryn Gardner-Vandy, PhD—Associate Professor and Program Coordinator for Graduate Studies

MS in Aviation and Space

The **Master of Science in Aviation and Space** is a fully online interdisciplinary graduate program designed to cultivate advanced leadership, analytical, and strategic competencies within the aviation/aerospace environment. The MS degree program emphasizes aviation/aerospace management and leadership, legal and regulatory issues, aviation economics, airport operations, aerospace executive decision making, ethics in aviation, space science, aerospace law, and additional content regarding the aviation/aerospace industry and related government programs and missions.

The MS degree program is deliberately inclusive of individuals from a variety of professional and academic backgrounds - aviation practitioners, military officers, civil servants, and professionals in adjacent technical or managerial fields - thereby fostering a dynamic and interdisciplinary learning environment.

EdD in Applied Educational Studies/Aviation

The **Doctor of Education in Applied Educational Studies - Aviation and Space** is a fully online interdisciplinary graduate program designed to meet the demands of private and commercial aviation industries, government organizations, educational institutions and the United States military. The EdD program emphasizes executive development and leadership, administration of aviation/aerospace companies, public policy issues, risk assessment principles, security and safety technologies, laws and regulations affecting the aviation/aerospace industry, aviation economics, development of air and space flight, quantitative and qualitative research methods, and clinical experiences in the aviation/aerospace industry.

The EdD degree program seeks doctoral candidates with strong intellects, proper educational preparation, breadth and depth of aviation/aerospace experiences and the capacity for disciplined investigation.

Educational Leadership (School Administration) (EDLE)

Katherine Curry, PhD—Professor and Program Coordinator (School Administration)

MS in Educational Leadership/School Administration or Workforce and Adult Education options

MS in Educational Leadership with a specialization in School Administration or Workforce and Adult Education: #To be considered

for admission to the MS program in School Administration or Workforce and Adult Education, applicants are expected to have an earned baccalaureate degree with at least a 3.00 GPA (on a 4.00 scale) and career goals that match the program. Applicants must provide three appropriate recommendations, transcripts, and#required essays. Applicants may be asked to complete an interview with program faculty. Applications for the MS in School Administration or Workforce and Adult Education are accepted on a rolling basis; an applicant's file will be reviewed when all materials have been received and notification of the admission decision will follow shortly thereafter.# Submission of test scores is not required for admission.

Graduate Certificate in Building Level Leadership

The Graduate Certificate in Building Level Leadership is intended for individuals seeking principal certification. This certificate documents partial fulfillment of state licensure requirements. To be considered for admission to the Graduate Certificate in Building Level Leadership, applicants are expected to have an earned master's degree with at least a 3.00 GPA (on a 4.00 scale) or plan of study in place for fulfillment of a master's degree and career goals that match the program. Applicants must provide three appropriate recommendations, transcripts, and required essays. Applicants may be asked to complete an interview with program faculty. Applications for the Graduate Certificate in Building Level Leadership are accepted on a rolling basis; an applicant's file will be reviewed when all materials have been received and notification of the admission decision will follow shortly thereafter. Submission of test scores is not required for admission.

Graduate Certificate in District Level Leadership

The Graduate Certificate in District Level Leadership is intended for individuals seeking superintendent certification. This certificate documents partial fulfillment of state licensure requirements. To be considered for admission to the Graduate Certificate in District Level Leadership, applicants are expected to have an earned master's degree or doctorate with at least a 3.00 GPA (on a 4.00 scale) or plan of study in place for fulfillment of a master's degree or doctoral degree and career goals that match the program. Applicants must provide three appropriate recommendations, transcripts, and required essays. Applicants may be asked to complete an interview with program faculty. Applications for the Graduate Certificate in District Level Leadership are accepted on a rolling basis; an applicant's file will be reviewed when all materials have been received and notification of the admission decision will follow shortly thereafter. Submission of test scores is not required for admission.

Graduate Certificate in Workforce and Adult Education

The Graduate Certificate in Workforce and Adult Education is designed to provide focused preparation for educational leadership in all areas of workforce development. The Workforce and Adult Education Graduate Certificate is designed to be a short term, 12-hour, stand-alone certificate for degreed professionals working to acquire the necessary skill set needed for training in a variety of settings. This certificate aligns with the direction of industry and educational institutions toward a more focused approach to training and building skill sets as seen by the increase in alternative pathways to industry credentials and specialized instruction. Submission of test scores is not required for admission.

EdD in Educational Leadership with a Specialization in School Administration

To be considered for admission to the EdD program in School Administration, applicants must possess an earned master's degree with a minimum 3.00 GPA (on a 4.00 scale) and career goals consistent with SA program goals. The online application must include a career objectives statement, master's transcripts, a current vita or resume that includes a description of relevant work experience, at least one sample of scholarly work or a critical issues essay, and three letters of recommendation. Review of applications for Fall admission into doctoral programs will begin after March 15, the priority deadline for receipt of all application materials. Applications received after March 15 or for Spring matriculation will also be considered as space is available. Notification of decisions will follow soon thereafter. Submission of test scores is not required for admission.

PhD in Educational Leadership and Policy Studies/ Educational Administration

Applicants for PhD program in Educational Administration must possess an earner master's degree with a minimum 3.00 GPA (on a 4.00 scale) and career goals consistent with SA program goals. Applicants must provide a current academic vita/resume, transcripts, a career objective essay, a critical issue essay, at least one example of written work, and three letters of recommendation. Additionally, program faculty may request an interview with the applicant. Review of applications for PhD students are on a rolling basis. For fall admission, the priority deadline for applications is due by March 15. Applications received after March 15 or for Spring matriculation will be considered as space is available. Notification of decisions will follow soon thereafter. Submission of test scores is not required for admission.

EdS in Education/Educational Administration

The Educational Specialist degree in educational administration at Oklahoma State University – College of Education and Human Sciences is a 36-credit-hour, post-master's program that provides advanced graduate work for school leadership and administration. The focus is to prepare individuals for district level educational administrative responsibility, typically in specialized positions in building and central office administration. Specific courses applied to the doctoral program are determined in consultation with the academic advisor and the School Administration Program Coordinator. To be considered for admission to the EdS program in School Administration, applicants must possess an earned master's degree with a minimum 3.00 GPA (on a 4.00 scale) and career goals consistent with SA program goals. The online application must include a career objectives statement, master's transcripts, a current vita or resume that includes a description of relevant work experience, at least one sample of scholarly work or a critical issues essay, and three letters of recommendation. Review of applications for Fall admission will begin after March 15, the priority deadline for receipt of all application materials. Applications received after March 15 or for Spring matriculation will also be considered as space is available. Notification of decisions will follow soon thereafter. Submission of test scores is not required for admission.

Application Deadline

Applications may be submitted at any time. Admissions are made on a rolling basis; students should receive notification of admission status within 4-6 weeks after all application materials are received. Admission review is initiated when applicants have applied to the Graduate College and their completed admission folders have been sent to College of Education and Human Sciences#for faculty review.

Minimum Background Requirements

EdS Applicants must have:

- A Master's from a regionally accredited college or university with a 3.0 GPA,

- Approval of the admissions committee
- TOEFL or IELTS (if required to establish English proficiency)

Documents Required to be Submitted for Admission Review

- OSU Graduate application, including transcripts
- Typewritten goals statement (about 500 words) consistent with mission of school leadership
- Writing sample
- Current Resume (include a list of three references with contact information)
- Three letters of reference

Interview

The program faculty may request an interview with applicants as a requirement for admission.

Educational Psychology (EPSY)

Chia-chen Yang, PhD—Associate Professor and Program Coordinator

MS in Educational Psychology

A master's degree in educational psychology is available as an option within the MS in educational psychology. Educational psychology emphasizes the application of psychological theory and research in the field of education. Every educational psychology master's student takes basic courses in educational psychology and research. For more information, see the website https://go.okstate.edu/graduate-academics/programs/masters/educational-psychology-ms.html. We have an option application for the MS degree in educational psychology.

PhD in Educational Psychology

The PhD in Educational Psychology includes areas of study in learning motivation cognition, instructional psychology, and human development. The programs prepare students for the role of teacher and researcher in educational and non-educational settings such as higher education, business, government, and communities.

The educational psychology PhD program is designed to provide students with maximum opportunity to individualize their programs according to their own interests, needs and professional goals. Applications for the PhD in Educational Psychology are due by January 15 for the following fall enrollment. For more information, see the website https://go.okstate.edu/graduate-academics/programs/doctoral/educational-psychology-phd.html.

Higher Education and Student Affairs (HESA)

Kerri Kearney, EdD—Professor and Program Coordinator

MS in Educational Leadership Studies

Option: Higher Education Administration

To be considered for admission to the Master's program with an option in Higher Education Administration, applicants are expected to have an earned baccalaureate degree with at least a 3.00 cumulative GPA (on a 4.00 scale) and career goals that match program learning objectives. Through the OSU Graduate College's online application, applicants must provide a career objective and personal goals essay, current academic vita or resume, and appropriate recommendations. Applicants may be asked to complete an interview with program faculty. Applications to all HESA Master's programs are accepted on a rolling basis. An applicant's file will be reviewed when all materials have been uploaded through the online application system. Notification of the admission decision will follow before the beginning of the next semester.

MS in Educational Leadership Studies

Option: Student Affairs

To be considered for admission to the Master's program with an option in Student Affairs, applicants are expected to have an earned baccalaureate degree with at least a 3.00 cumulative GPA (on a 4.00 scale) and career goals that match program learning objectives. Applicants must provide a career objective and personal goals, essay, current resume or academic vita and appropriate recommendations. Applicants may be asked to complete an interview with program faculty. Applications to all HESA Master's programs are accepted on a rolling basis; however, for fullest consideration for graduate assistantships, please submit all materials by February 1. An applicant's file will be reviewed when all materials have been uploaded to the online application system. Notification of the admission decision will follow before the beginning of the next semester.

PhD in Educational Leadership and Policy Studies

Option: Higher Education

Through the OSU Graduate College's online application, applicants for the PhD program in Higher Education must provide a current academic vita/resume, a career objective essay, and two letters of recommendation. Additionally, the program faculty may request an interview with applicants. The PhD requires a research/professional experience completed simultaneously with coursework. All application material must be received by February 1; review of applications will begin soon thereafter. Notification of decisions will follow.

More information about the Higher Education program, course requirements, and other pertinent information can be found at http://education.okstate.edu/hesa (http://education.okstate.edu/hesa/).

Applications for all degree programs can be found on the college Graduate Studies website at https://education.okstate.edu/departments-programs/graduate-degrees.html.

Learning, Design, and Technology (EDTC)

Penny Thompson, PhD— Professor and Program Coordinator

The mission of Oklahoma State University's Learning, Design, and Technology program is to facilitate the growth of scholars and educational technology professionals through rigorous programs of study that provide exceptional hands-on, collaborative and innovative learning, research and service experiences and are highly regarded at the international, national, state and university levels. The program website, edtech.okstate.edu (http://edtech.okstate.edu/), offers greater detail.

MS in Educational Technology - Options: Educational Technology and School Library Media

The MS in Educational Technology is for students interested in furthering their knowledge, skills and opportunities in the area of educational technology and school library media. This degree will enhance their marketability and, in the case of the School Library Media option, provide credentials necessary for recommendation for this particular area of teacher certification. In addition to the core focus on educational technology, candidates pursuing School Library Media certification will also be immersed in the areas of information literacy, curriculum leadership and program administration, meeting ALA accreditation standards through CAEP. To be considered for admission to the master's program, applicants should have an earned baccalaureate degree with

at least a 3.00 GPA (on a 4.00 scale), a professional goals statement and three letters of recommendation providing information related to past academic ability, potential for graduate study and writing ability. Applicants to the School Library Media option must also hold a teaching certificate. Applications will be reviewed upon receipt of all materials.

Graduate Certificate in School Library Media Certification

This certificate is for those who already hold a master's degree and initial teaching certificate and want to add-on School Library Media advanced certificate in the State of Oklahoma.

Graduate Certificate in Online Teaching

The Graduate Certificate in Online Teaching offers students the opportunity to add pedagogical and technological skills to their existing content knowledge within a model online learning environment and emerge prepared to design, develop, deliver and sustain online learning in an educational institution. This certificate is often used as a cognate area for PhD programs across campus. Applications are reviewed as received, but all cohorts begin in the fall semester. Applications must be submitted by July 1.

PhD in Education/Learning, Design and Technology

For those seeking a doctoral-level degree emphasizing educational technology, we offer the PhD in Education with an option in Learning, Design and Technology. The focus of the program is on the core areas of the field: design, development, utilization, production, and evaluation of instructional systems, human computer interaction and technology applications to support learning and teaching. The doctoral program emphasizes research using educational technology in applied settings. The PhD degree in Learning, Design and Technology option prepares future researchers for a variety of professional positions. Graduates are typically employed as university faculty, educational technologists in universities, community colleges, and schools or as training managers or instructional designer/developers in corporate settings. The PhD in Education degree requires a minimum of 69 credit hours beyond the master's degree. Applicants must apply to the OSU Graduate College and include a recent score from the Graduate Record Exam or the Miller Analogies Test, a Statement of Goals and Objectives, references and examples of scholarly writing. An interview may be requested.

The student association for this program is the Educational Media and Technology Student Association. The purpose of this group is to engage undergraduate and graduate students interested in this field in activities that will serve to enhance their academic experience through special speakers, service projects and social activities.

The Learning, Design, and Technology faculty is committed to involving students in a variety of experiences that will enhance their professional careers. Students help facilitate the College's Emerging Technologies and Creativity Lab (http://edtech.okstate.edu/techplayground/). Faculty work with students to present papers at national conferences and to submit manuscripts to professional journals. Students participate in Educational Technology courses, grant projects, and service and outreach to educational groups. Graduate assistantships in teaching and research are often available. Each student has the opportunity to engage in rich internship and practicum experiences designed with the individual learner's goals in mind.

Research, Evaluation, Measurement and Statistics (REMS)

Jam Khojasteh, PhD—Professor and Program Coordinator

The Research, Evaluation, Measurement and Statistics program offers MS and PhD degrees and three graduate certificates (see website). The MS program prepares students to function as staff members in research and evaluation units in school districts, governmental agencies, and private corporations and foundations. Graduates of the doctoral program are prepared to serve as college or university professors, directors of research and evaluation for public schools and universities, researchers for funded projects, state department of education consultants, and professional employees for test publishers and local, state and federal government agencies.

MS in Research, Evaluation, Measurement and Statistics

The MS degree requires a minimum of 36 credit hours. There are three options: either 36 hours of coursework plus a creative component; 32 hours of coursework plus a report (four thesis hours); or 30 hours of coursework plus a thesis (six thesis hours). The student's advisory committee may recommend additional coursework or thesis hours. Required courses include six hours in educational psychology and 24 hours in research and evaluation including a practicum. Students taking a non-thesis option must take additional courses from an approved list of electives. Master's students must take two qualifying examinations that cover the program core and the area of professional specialization.

PhD in Research, Evaluation, Measurement and Statistics

The PhD degree requires a university determined minimum of 66 hours beyond the master's degree or a minimum of 90 semester hours beyond the bachelor's degree. The typical doctoral student completes nine hours of common core coursework in educational psychology and 15 hours of common core coursework in integrated and extended inquiry; 18 hours of professional course hours (e.g., psychometric theory, applied multivariate research), a minimum of nine hours in a cognate area defined by the student and committee chair (e.g., mathematical statistics, institutional research, student development), and at least 15 dissertation hours. Students also select two applied experiences from a list of suggested experiences with the assistance and approval of the committee chair. PhD students must take two qualifying examinations that cover the program and core and the area of professional specialization.

Graduate Certificate in Program Evaluation

The Graduate Certificate in Program Evaluation is designed for students seeking to become more knowledgeable in program evaluation skills. The certificate enables students to have a critical understanding of key program evaluation techniques, including how to plan and design evaluations and logic models. Students will also gain practice in carrying out an actual program evaluation as a result of completing this certificate.

Graduate Certificate in Educational & Psychological Measurement

The Graduate Certificate in Educational and Psychological Measurement is designed for students seeking to develop skills necessary for conducting research studies that involve some type of knowledge test, personality assessment and other psychological survey. The certificate enables students to have an understanding of key statistical techniques and tools for analyzing data gathered from tests and surveys.

Coursework is designed to prepare students to critically evaluate the instruments they use in order to properly use them to measure or score respondents.

Graduate Certificate in Statistical Methods & Analyses in Education & Behavioral Sciences

The Graduate Certificate in Statistical Methods and Analyses in Education and Behavioral Sciences in designed for students seeking to strengthen skills for conducting research studies that involve data analysis, quantitative reasoning, use of data and knowledge of statistical methods. The certificate enables students to have a critical understanding of key statistical methods and analyses. Many graduate students use statistical procedures in their own research and gather data for these theses, dissertations or other projects. The coursework complied within this graduate certificate is designed to prepare students to critically evaluate statistical methods used and conduct the appropriate analyses given their data, hypotheses and research questions.

Social Foundations (SCFD)

Guoping Zhao, PhD—Professor and Program Coordinator

Social foundations of education is an interdisciplinary study of schooling and other forms of education. Ever since it began during the 1930s at Teachers College of Columbia University, social foundations has brought together scholars who situate education in historical, philosophical, economic and social contexts. Using the tools of the humanities and the social sciences, social foundations scholars ask perennial questions, such as: What is the purpose of schooling in a democracy? What knowledge and values should be taught and to whose benefit? How are issues of race, ethnicity, social class, gender and ability manifested in schools?

Drawing from history, philosophy, sociology, anthropology, international studies and other disciplines to teach their courses, faculty in the social foundations program area ask that educators reflect critically on the social and cultural dynamics in educational settings and how policy and practices might be improved. Students from other human service professions and other disciplines are invited to make similar use of the content of these courses for their professional practice.

MA in Social Foundations of Education

The MA in Social Foundations of Education is designed for those who are interested in increasing their knowledge base in history, philosophy, sociology, and anthropology of education and their research skills and critical and creative thinking skills. The degree will enhance current practitioners' and leaders' marketability and their capacity to earn professional development credits and pay raises. It will also prepare those who wish to continue on to earn a Ph.D. or another terminal degree in education and related fields. The curriculum is geared toward providing students with a strong foundation in theory and research, bridging together community service and outreach.

To be considered for admission to the MA program, applicants are expected to have an earned bachelor's degree with minimum GPA averages of 3.00 on a 4.00 scale. Rolling admission until July 1 for Fall admission and December 1 for Spring admission. For international applicants, see the Graduate College requirement at: https://gradcollege.okstate.edu/prospective-students/application-process.html.

PhD in Education/Social Foundation

The mission of the PhD in education with social foundations option is to educate scholars who have the abilities to discover, integrate and apply knowledge about the culture in which the institutions called school reside, as well as the culture the institution creates. In the broadest sense, social foundations option is intended to educate scholars so they can disseminate new knowledge to educational, governmental, social economic and other scholarly communities interested in the advancement of the educational enterprise at the national and international levels.

To be considered for admission to the PhD program, applicants are expected to have an earned master's degree with minimum GPA averages of 3.50 on a 4.00 scale, and have career goals that match the program. Applicants must provide appropriate recommendations (three), and a recent scholarly writing sample. For students with little or no background in education, additional leveling courses may be required.

Certificates

- Instructional Design, UCRT (p. 2157)
- Learning and Motivation, UCRT (p. 2159)

Minors

- Aerospace Administration and Operations: Aerospace Security (AAAS), Minor (p. 2145)
- Aerospace Administration and Operations: Aviation Management (AAAM), Minor (p. 2148)
- Aerospace Administration and Operations: Professional Pilot (AAPP), Minor (p. 2151)
- Creativity Studies (CRST), Minor (p. 2156)
- Learning and Motivation (LEMO), Minor (p. 2158)

Faculty

Mike Yough, PhD—Professor and Interim School Head
Professors: Lucy Bailey, PhD; Denise Blum, PhD; Timm Bliss, EdD; Ki Lynn Cole, PhD; Katherine Curry, EdD; Chad Depperschmidt, EdD; Kerri Kearney, EdD; Jam Khojasteh, PhD; Jon Loffi, EdD; Susan Stansberry, PhD; Penny Thompson, PhD; Guoping Zhao, PhD
Associate Professors: Mallory Casebolt, PhD; Kathryn Gardner-Vandy, EdD; Amber Manning-Ouellette, PhD; Tami Moore, PhD; Jentre Olsen, PhD; Jane Vogler-Cragun, PhD; Chia-chen Yang, PhD
Assistant Professors: Olajumoke 'Beulah' Adigun, PhD; Ashlyn Fiegener, PhD; Dion Harry, PhD; Joseph Kim, PhD; Keunjae Kim, PhD; Hyeryung Lee, PhD; Don Murray, PhD; Tyler Spence, PhD
Teaching Assistant Professors: Hyun Sung Jang, PhD; Carolina Torrejon Capurro, PhD
Visiting Assistant Professor: Lisa Will, PhD
Lecturer: LaVoe Quintel, MBA
Manager, Aviation: Lance Fortney, MS
Assistant Manager, Aviation: Cara Brun, MS
Chief Flight Instructor: Mark Uhlman, EdD

Aerospace Administration and Operations: Aerospace Security (AAAS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Academic Programs and Student Services, 101 Nancy Randolph Davis, 405-744-5053

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 24

Code	Title	Hours
Minor Requirements		
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3483	Airport Passenger and Baggage Screening	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4413	Aviation Terrorism and Asymmetrical Warfare	3
AVED 4423	Aviation Security Organizations and Law	3
AVED 4943	Basic Aircraft Accident Investigation	3
Select 6 hours of the following:		6
AVED 3443	Aviation Legal and Regulatory Issues	
AVED 3523	Airport Planning and Management	
AVED 4113	Aviation Safety	
AVED 4663	Aerospace Leadership	
Total Hours		**24**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Aerospace Administration and Operations: Aerospace Security, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought and Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 18 hours		18
Recommended Courses:		
ACCT 2003	Survey of Accounting	
AVED 1114	Theory of Flight	
AVED 4100	Specialized Studies in Aviation	
AVED 4200	Internship in Aviation	
REL 1103	Introduction to World Religions (GH)	
SOC 3223	Social Psychology (S)	
Hours Subtotal		**20**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
AVED 3113	History of Aviation	3
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3483	Airport Passenger and Baggage Screening	3
AVED 3493	Analysis of Aviation Security Countermeasures	3
AVED 3513	Aviation/Aerospace Management Principles	3
AVED 3523	Airport Planning and Management	3
AVED 3543	Aerospace Organizational Communications	3
AVED 3573	Aviation/Aerospace Finance	3
AVED 3623	Airport Network Security	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 3883	Space Flight	3
AVED 4413	Aviation Terrorism and Asymmetrical Warfare	3
AVED 4423	Aviation Security Organizations and Law	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4663	Aerospace Leadership	3
AVED 4943	Basic Aircraft Accident Investigation	3
AVED 4953	Corporate and General Aviation Management	3
AVED 4993	Aviation Labor Relations	3
Hours Subtotal		**60**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division coursework.
- A 2.50 GPA is required in the Major Requirements with no grade below a "C".

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH or STAT course designated (A)		3
Course Designated (H)		3
UNIV 1111	First Year Seminar	1
	Hours	**13**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (S)		3
Course designated (D)		3
Course designated (N,L)		4
	Hours	**16**
Sophomore		
Fall		
AVED 3113	History of Aviation	3
Course designated (G)		3
Course designated (Q), (H), (N), (S), (D), (G) or (F)		3
Choose 6 hours of electives - (LEIS courses do not count)		6
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3433	Aviation/Aerospace Ethics	3
Choose 6 hours of electives (LEIS courses do not count)		6
Course designated (H)		3
	Hours	**15**
Junior		
Fall		
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 3513	Aviation/Aerospace Management Principles	3
AVED 3543	Aerospace Organizational Communications	3
Course designated (N)		3
AVED 4423	Aviation Security Organizations and Law	3
	Hours	**15**
Spring		
AVED 4993	Aviation Labor Relations	3
AVED 3523	Airport Planning and Management	3
AVED 3623	Airport Network Security	3
AVED 3573	Aviation/Aerospace Finance	3
AVED 3883	Space Flight	3
	Hours	**15**
Senior		
Fall		
AVED 4663	Aerospace Leadership	3
AVED 3483	Airport Passenger and Baggage Screening	3
AVED 4943	Basic Aircraft Accident Investigation	3
AVED 3443	Aviation Legal and Regulatory Issues	3
Choose 3 hours of electives (LEIS courses do not count)		3
	Hours	**15**
Spring		
AVED 4653	International Aerospace Issues (G)	3
AVED 3493	Analysis of Aviation Security Countermeasures	3
AVED 4953	Corporate and General Aviation Management	3
AVED 4413	Aviation Terrorism and Asymmetrical Warfare	3
Choose 3 hours of electives (LEIS courses do not count)		3
	Hours	**15**
	Total Hours	**120**

Aerospace Administration and Operations: Aviation Management (AAAM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Academic Programs and Student Services, 101 Human Sciences, 405-744-5053

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 27

Code	Title	Hours
Minor Requirements		
AVED 3113	History of Aviation	3
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3513	Aviation/Aerospace Management Principles	3
AVED 3523	Airport Planning and Management	3
AVED 3543	Aerospace Organizational Communications	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4113	Aviation Safety	3
AVED 4663	Aerospace Leadership	3
AVED 4953	Corporate and General Aviation Management	3
Total Hours		**27**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Aerospace Administration and Operations: Aviation Management, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Select one course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 18 hours		18
Recommended Courses:		
ACCT 2003	Survey of Accounting	
ACCT 2203	Managerial Accounting	
AVED 4100	Specialized Studies in Aviation	
AVED 4200	Internship in Aviation	
ECON 2003	Microeconomic Principles for Business	
ECON 2103	Introduction to Microeconomics (S)	
ECON 2203	Introduction to Macroeconomics	
Hours Subtotal		**20**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
AVED 3113	History of Aviation	3
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3513	Aviation/Aerospace Management Principles	3
AVED 3523	Airport Planning and Management	3
AVED 3543	Aerospace Organizational Communications	3
AVED 3563	Aviation Marketing	3
AVED 3573	Aviation/Aerospace Finance	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 3883	Space Flight	3
AVED 4113	Aviation Safety	3
AVED 4173	Aerospace Logistics Quality Programs	3
AVED 4523	Airport Certified Member Preparation	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4663	Aerospace Leadership	3
AVED 4883	Capstone Course in Aviation Management	3
AVED 4943	Basic Aircraft Accident Investigation	3
AVED 4953	Corporate and General Aviation Management	3
AVED 4993	Aviation Labor Relations	3
Hours Subtotal		**60**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division coursework.
- A 2.50 GPA is required in the Major Requirements with no grade below a "C".

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
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Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH or STAT course designated (A)		3
UNIV 1111	First Year Seminar	1
Course designated (H)		3
	Hours	**13**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (H)		3
Course designated (D)		3
Course designated (N,L)		4
	Hours	**16**
Sophomore		
Fall		
AVED 3113	History of Aviation	3
Course designated (S)		3
6 hours of electives - LEIS courses do not count		6
Course designated (G)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
AVED 3433	Aviation/Aerospace Ethics	3
Course designated (N)		3
Course designated (Q), (H), (N), (S), (D), (G) or (F)		3
6 hours of electives - LEIS courses do not count		6
	Hours	**15**
Junior		
Fall		
AVED 3513	Aviation/Aerospace Management Principles	3
AVED 3543	Aerospace Organizational Communications	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3563	Aviation Marketing	3
3 hours of electives - LEIS courses do not count		3
	Hours	**15**
Spring		
AVED 4113	Aviation Safety	3
AVED 3523	Airport Planning and Management	3
AVED 3573	Aviation/Aerospace Finance	3
AVED 3883	Space Flight	3
AVED 4173	Aerospace Logistics Quality Programs	3
	Hours	**15**
Senior		
Fall		
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 4523	Airport Certified Member Preparation	3
AVED 4663	Aerospace Leadership	3
AVED 4943	Basic Aircraft Accident Investigation	3
AVED 4993	Aviation Labor Relations	3
	Hours	**15**
Spring		
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4953	Corporate and General Aviation Management	3
AVED 4883	Capstone Course in Aviation Management	3
3 hours of electives - LEIS courses do not count		3
	Hours	**15**
	Total Hours	**120**

Aerospace Administration and Operations: Professional Pilot (AAPP), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 26

Code	Title	Hours
Minor Requirements		
AVED 1114	Theory of Flight	4
AVED 1222	Private Flight Laboratory I	2
AVED 1232	Private Flight Laboratory II	2
AVED 1403	Advanced Theory of Flight	3
AVED 2122	Intermediate Flight Lab	2
AVED 2133	Instrument Flight Laboratory	3
AVED 2142	Commercial Maneuvers Flight Lab	2
AVED 2213	Theory of Instrument Flight	3
AVED 2313	Theory of Commercial Flight	3
AVED 3231	Theory of Multi-Engine Flight	1
AVED 3341	Multi-Engine Flight Laboratory	1
Total Hours		**26**

Other Requirements

- Selection into OSU's professional pilot minor through the competitive secondary application process is required.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Aerospace Administration and Operations: Professional Pilot, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) (or higher MATH or STAT (Q) course)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
GEOG 3033	Meteorology (N)	3
PHYS 1114	College Physics I (LN)	4
Or higher level PHYS		
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 6 hours of electives		6
Recommended Courses (2 hours each below):		
AVED 4100	Specialized Studies in Aviation	
AVED 4200	Internship in Aviation	
Hours Subtotal		**8**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
AVED 1114	Theory of Flight	4
AVED 1222	Private Flight Laboratory I	2
or AVED 1210	Private Flight Laboratory 1A	
AVED 1232	Private Flight Laboratory II	2
or AVED 1230	Private Flight Laboratory 2A	
AVED 1403	Advanced Theory of Flight	3
AVED 2122	Intermediate Flight Lab	2
or AVED 2120	Intermediate Flight Laboratory 1A	
AVED 2133	Instrument Flight Laboratory	3
or AVED 2130	Instrument Flight Laboratory 1A	
AVED 2142	Commercial Maneuvers Flight Lab	2
or AVED 2140	Commercial Maneuvers Flight Laboratory 1A	
AVED 2213	Theory of Instrument Flight	3
AVED 2313	Theory of Commercial Flight	3
AVED 3113	History of Aviation	3
AVED 3231	Theory of Multi-Engine Flight	1
AVED 3243	Human Factors in Aviation	3
AVED 3333	Advanced Aircraft Systems	3
AVED 3341	Multi-Engine Flight Laboratory	1
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3533	Aircraft Turbine Engine Operation	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4113	Aviation Safety	3
AVED 4133	Principles of Flight Instruction	3
AVED 4232	Flight Instructor: Airplane Flight Laboratory	2
or AVED 4230	Flight Instructor Flight Laboratory 1A	
AVED 4303	Aviation Weather	3
AVED 4353	Cockpit Automation	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4703	Crew Resource Management	3
AVED 4993	Aviation Labor Relations	3
Hours Subtotal		**73**
Total Hours		**121**

Program Entrance Requirement

- Selection into OSU's professional pilot option through the competitive secondary application process is required.

Other Requirements

- 40 hours of upper-division coursework.
- A 2.50 GPA is required in the Major Requirements with no grade below a “C”.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
AVED 1114	Theory of Flight	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
AVED 1222 or AVED 1210	Private Flight Laboratory I or Private Flight Laboratory 1A	2
UNIV 1111	First Year Seminar	1
	Hours	**13**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
AVED 1403	Advanced Theory of Flight	3
POLS 1113	American Government	3
MATH 1513	College Algebra (Q)	3
AVED 1232 or AVED 1230	Private Flight Laboratory II or Private Flight Laboratory 2A	2
	Hours	**14**
Sophomore		
Fall		
AVED 3113	History of Aviation	3
AVED 2213	Theory of Instrument Flight	3
PHYS 1114	College Physics I (LN) (or higher level PHYS)	4
Course Designated (H)		3
AVED 2133 or AVED 2130	Instrument Flight Laboratory or Instrument Flight Laboratory 1A	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**17**
Spring		
AVED 2313	Theory of Commercial Flight	3
AVED 3453	Aviation/Aerospace Security Issues	3
GEOG 3033	Meteorology (N)	3
Course designated (G)		3
3 Hours of Elective - LEIS courses do not count)		3
	Hours	**15**
Junior		
Fall		
AVED 3231	Theory of Multi-Engine Flight	1
AVED 3243	Human Factors in Aviation	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 4303	Aviation Weather	3
Course Designated (H)		3
AVED 2122 or AVED 2120	Intermediate Flight Lab or Intermediate Flight Laboratory 1A	2
	Hours	**15**
Spring		
AVED 3533	Aircraft Turbine Engine Operation	3
AVED 4133	Principles of Flight Instruction	3
Course designated (D)		3
3 Hours elective - LEIS courses do not count		3
AVED 2142 or AVED 2140	Commercial Maneuvers Flight Lab or Commercial Maneuvers Flight Laboratory 1A	2
Course designated (S)		3
	Hours	**17**
Senior		
Fall		
AVED 4113	Aviation Safety	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4993	Aviation Labor Relations	3
Course designated (Q), (H), (N), (S), (D), (G) or (F)		3
AVED 3333	Advanced Aircraft Systems	3
AVED 3341	Multi-Engine Flight Laboratory	1
	Hours	**16**
Spring		
AVED 3433	Aviation/Aerospace Ethics	3
AVED 4703	Crew Resource Management	3
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4353	Cockpit Automation	3
AVED 4232 or AVED 4230	Flight Instructor: Airplane Flight Laboratory or Flight Instructor Flight Laboratory 1A	2
	Hours	**14**
	Total Hours	**121**

Aerospace Administration and Operations: Technical Service Management, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
Some or all may need to be upper-division		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 15 hours		15
Recommended Courses:		
AVED 1114	Theory of Flight	
AVED 1210	Private Flight Laboratory 1A	
or AVED 1222	Private Flight Laboratory I	
AVED 4100	Specialized Studies in Aviation (3 hours)	
AVED 4200	Internship in Aviation (variable hours)	
Hours Subtotal		**17**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
AVED 3113	History of Aviation	3
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3453	Aviation/Aerospace Security Issues	3
AVED 3513	Aviation/Aerospace Management Principles	3
or AVED 3333	Advanced Aircraft Systems	
AVED 3543	Aerospace Organizational Communications	3
or AVED 3243	Human Factors in Aviation	
AVED 3573	Aviation/Aerospace Finance	3
or AVED 3533	Aircraft Turbine Engine Operation	
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4113	Aviation Safety	3
AVED 4653	International Aerospace Issues (G)	3
AVED 4663	Aerospace Leadership	3
or AVED 4303	Aviation Weather	
AVED 4953	Corporate and General Aviation Management	3
or AVED 4353	Cockpit Automation	
AVED 4993	Aviation Labor Relations	3
Select 24 hours of coursework in Aviation Science		24
Hours Subtotal		**63**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division coursework.
- A 2.50 GPA is required in the Major Requirements with no grade below a "C".

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH or STAT course designated (A)		3
UNIV 1111	First Year Seminar	1
Course designated (H)		3
	Hours	**13**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (H)		3
Course designated (D)		3
Course designated (N,L)		4
	Hours	**16**
Sophomore		
Fall		
AVED 3113	History of Aviation	3
Aviation Applied Science Elective course		6
3 hours of electives - LEIS courses do not count		3
Course designated (G)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
AVED 3453	Aviation/Aerospace Security Issues	3
Course designated (N)		3
Course designated (Q), (H), (N), (S), (D), (G) or (F)		3
6 hours of electives - LEIS courses do not count		6
	Hours	**15**
Junior		
Fall		
AVED 3333 or AVED 3513	Advanced Aircraft Systems or Aviation/Aerospace Management Principles	3
AVED 3543 or AVED 3243	Aerospace Organizational Communications or Human Factors in Aviation	3
Aviation Applied Science Elective course		6
3 hours of electives - LEIS courses do not count		3
	Hours	**15**
Spring		
AVED 3433	Aviation/Aerospace Ethics	3
AVED 3443	Aviation Legal and Regulatory Issues	3
AVED 3533 or AVED 3573	Aircraft Turbine Engine Operation or Aviation/Aerospace Finance	3
Course designated (S)		3
Aviation Applied Science Elective course		3
	Hours	**15**
Senior		
Fall		
AVED 4113	Aviation Safety	3
AVED 4993	Aviation Labor Relations	3
AVED 4303 or AVED 4663	Aviation Weather or Aerospace Leadership	3
Aviation Applied Science Elective course		6
	Hours	**15**
Spring		
AVED 3663	Aerospace and Air Carrier Industry	3
AVED 4353 or AVED 4953	Cockpit Automation or Corporate and General Aviation Management	3
AVED 4653	International Aerospace Issues (G)	3
3 hours of electives - LEIS courses do not count		3
Aviation Applied Science Elective course		3
	Hours	**15**
	Total Hours	**120**

Creativity Studies (CRST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	3
EPSY 4063	Exploration of the Creative Experience	3
EEE 4663	Imagination in Entrepreneurship	3
Select 3 courses (9 hours), no more than two courses in any department, of the following:		9
AMST 3550	The Arts and American Society	
DM 2003	Problem Solving Strategies	
EEE 4010	Special Topics in Entrepreneurship	
EEE 4113	Dilemmas and Debates in Entrepreneurship	
EEE 4503	Designing, Prototyping, Testing	
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	
PHIL 4113	Philosophy & the Arts (H)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Instructional Design, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total hours: 16

Code	Title	Hours
Required courses		
EDTC 4753	Introduction to Instructional Design	3
EDTC 4103	Advanced Computing Applications in Education	3
EDTC 4503	Facilitating Online Learning	3
EDTC 4773	Instructional Systems Project Management	3
Four hours from:		4
EDTC 4110	Special Topics in Educational Technology	
Total Hours		**16**

Learning and Motivation (LEMO), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Academic Programs and Student Services, 101 Nancy Randolph Davis, 405-744-5053

Minimum Overall Grade Point Average: 3.0 with no grade below "C."
Total Hours: 18

Code	Title	Hours
Minor Requirements		
EPSY 3533	Motivating Learners	3
EPSY 4223	Psychological Foundations of Learning and Instruction	3
Select one of the following:		3
EPSY 3113	Psychological Foundations of Childhood	
EPSY 3213	Psychology of Adolescence	
EPSY 3413	Child and Adolescent Development	
Select 9 hours from the following:		9
CPSY 4443	Cultural Diversity in Professional Life (D)	
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	
EPSY 4063	Exploration of the Creative Experience	
EPSY 4533	Competency Motivation	
SPED 3202	Educating Exceptional Learners (D)	
EPSY 4743	Learning, Motivation, and Social Justice (Course effective Fall 2019)	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Learning and Motivation, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Required Courses		
EPSY 4223	Psychological Foundations of Learning and Instruction	3
EPSY 3533	Motivating Learners	3
Select three hours from the following:		3
EPSY 3113	Psychological Foundations of Childhood	
EPSY 3213	Psychology of Adolescence	
EPSY 3413	Child and Adolescent Development	
Select nine hours from the following:		9
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	
EPSY 4063	Exploration of the Creative Experience	
EPSY 4533	Competency Motivation	
EPSY 4743	Learning, Motivation, and Social Justice	
CPSY 4443	Cultural Diversity in Professional Life (D)	
Total Hours		**18**

School of Kinesiology, Applied Health and Recreation

Tim Passmore, PhD—Interim School Head

The School of Kinesiology, Applied Health and Recreation (KAHR) offers undergraduate and graduate programs in Applied Exercise Science, Recreation and Athletic Management, Recreational Therapy, Health and Human Performance, and Leisure Studies. These programs provide excellence in graduate and undergraduate education through current academic relevance and proven standards. Candidates are encouraged to engage in scholarly inquiry and research productivity to benefit the people of Oklahoma and beyond. Areas of service extend through involvement with the university, community, state and nation. The commonality in programs within KAHR provides unique opportunities for program interaction and collaboration for both faculty and students.

Course Prefixes

Course prefixes in KAHR include HHP (Health and Human Performance); RMRT (Recreation and Athletic Management and Recreational Therapy); RM (Recreation and Athletic Management); RT (Recreational Therapy); and LEIS (Leisure Studies).

Applied Exercise Science

Doug Smith, PhD—Professor and Graduate HHP Coordinator
Jay Dawes, PhD—Professor and Undergraduate Applied Exercise Science Coordinator

The program in Applied Exercise Science at OSU prepares students through coursework such as biomechanics, exercise physiology, exercise psychology, exercise testing, sports nutrition, cardiac rehabilitation, strength and conditioning, and overall fitness for both healthy individuals and those with special needs. The Degree offers two options: Pre-Professional and Strength and Conditioning. The Pre-Professional concentration is designed for undergraduates interested in careers in Clinical Exercise Physiology, Cardiac/Stroke Rehabilitation, Physical Therapy, Occupational Therapy, Athletic Training, and graduate school. The Strength and Conditioning concentration is designed for students interested in careers in Strength and Conditioning, Personal Training, Fitness Instructor, Coaching, Fitness Facility Management, etc. The Strength and Conditioning concentration is recognized by the National Strength and Conditioning Association (NSCA) for our emphasis in strength and conditioning. The NSCA Education Recognition Program (ERP) recognizes and distinguishes schools with standardized, approved strength and conditioning or personal training curricula in undergraduate and graduate settings designed to prepare students for the NSCA-Certified Personal Trainer® (NSCA-CPT®) and NSCA Certified Strength and Conditioning Specialist® (CSCS®) certifications. This degree would also serve to prepare the student not only for the NSCA-CPT and CSCS, but for professional certification examinations, such as Certified Special Population Specialist (CSPS), Certified Physical Therapist (CPT), Certified Health Fitness Specialist (HFS), Certified Exercise Physiologists (EP-C), etc.

Recreation and Athletic Management and Recreational Therapy

Tim Passmore, EdD, CTRS/L, FDRT—Professor and Program Coordinator

The program in Recreation Management and Recreational Therapy Program prepares students at the undergraduate and graduate levels for careers in recreation management and recreational therapy. The undergraduate program in Recreational Therapy is accredited through the Committee on Accreditation of Recreational Therapy Education by the Commission on Accreditation of Allied Health Programs. Students completing the Recreational Therapy program are eligible to sit for the National Council for Therapeutic Recreation Certification (CTRS) and apply for Medical Licensure in the State of Oklahoma through the Oklahoma Medical Licensing Board. Recreational Therapy prepares students to work in a variety of settings including hospitals, rehabilitation centers, day programs, institutions and within the community. Recreational Therapy is a valued part of the health care and human services. Individuals with illness, disabilities or limitations are helped to restore, enhance or maintain their health, independence and well-being through recreational therapy.

Those students completing the Recreation and Athletic Management program are eligible to sit for the Certified Park and Recreation Professional. Recreation Management prepares students for employment in a variety of settings such as municipal, commercial, and corporate recreation; state and national park services; YMCAs and YWCAs; and armed services recreation. Recreation Management is a growing field and is a multi-billion dollar industry. Non-majors may complete a 21-credit minor in Recreation Management.

Sport & Coaching Science

Jay Dawes, PhD—Program Area Faculty

The Sport & Coaching Science degree prepares students at the undergraduate level for careers in athletic coaching and ancillary fields. The curriculum prepares professionals for certification via various sports organizations relevant to their specific sport of interest (e.g., United States Tennis Association, National Football League, United States Volleyball Association), or prepares them to successfully achieve other sport and exercise-based certifications such as personal training. The degree will also prepare students for the many graduate programs available nationwide in coaching science and education.

The Sport & Coaching Science Program prepares students for work and further study in a variety of settings including: professional, collegiate, or secondary school sport organizations; elite training facilities; athletic league officiating; small businesses (e.g., karate, cheer, gymnastics); sport psychology; athletic training; strength and conditioning; and sports management.

Programs/Areas of Emphasis Degrees

Degrees offered through KAHR programs include Bachelor of Science (BS), Graduate Certificate (GCRT), Master of Science (MS) and Doctor of Philosophy (PhD).

Applied Exercise Science

- Applied Exercise Science
  - Pre-Professional - BS
  - Strength and Conditioning - BS
  - Sport and Coaching Science - BS

Health and Human Performance

- Health and Human Performance - MS
- Health, Leisure and Human Performance - PhD
- Leisure Studies - MS

Recreation and Athletic Management and Recreational Therapy

- Recreation and Athletic Management - BS
- Recreational Therapy - BS
  - Pre-Professional Occupational Therapy - BS

Courses

HHP 1703 Introduction to Exercise Science
Description: An introductory course of the general history, theories, principles, nature and scope of Exercise Science. This includes foundations and sub-disciplines, an understanding of essential skills, and career opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1753 Introduction to Physical Education
Description: The nature, scope and significance of physical education. Historical and philosophical foundations, major sub-disciplines and their interrelationships, and career opportunities. Previously offered as PE 1753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1823 Pedagogy of Non-Traditional Activities, Rhythm, and Movement
Prerequisites: HHP and RMRT majors and minors only.
Description: Introduction of activities typically taught to supplement individual or team sports in addition to basic fundamentals and methods of movement skills for rhythms including social, creative, developmental, and multicultural dance and activities. Content includes teaching strategies, assessments, skills analysis, skill components, concepts, terms, safety issues, selection of developmentally appropriate activities, and scope and sequencing of skill components by grade level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 1843 Pedagogy of Individual Activities
Prerequisites: HHP and RMRT majors and minors only.
Description: Introduction of activities typically taught as individual sports and activities. Teaching strategies, skill components, terms, safety issues, and selection of developmentally appropriate individual activities, scope and sequencing of skill components, assessment, lesson structure, and writing performance objectives. Previously offered as HHP 1842.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2222 Introduction to Health Aspects of Gerontology
Description: An introductory course of the physical and physiological aspects of aging combined with common pathology and intervention.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2553 Basic Athletic Injury Management
Prerequisites: HHP 2654.
Description: Identification of emergency medical situations and application of basic care for injury occurring in school and athletic setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2602 First Aid
Description: A competency- and performance-based first aid course. Course previously offered as HLTH 2602.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 2654 Applied Anatomy
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Action and location of individual muscles and muscle groups. Anatomy as applied to a living person. Common anatomical injuries and diseases will be presented with each joint structure. Lab sections will be structured around specific content area for students' discipline. Course previously offered as HHP 2653 and HLTH 2653.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 2802 Medical Terminology for the Health Professions
Description: Basic knowledge and understanding of medical language and terminology used in allied health and health professions.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3010 Health and Human Performance Workshop
Description: Concentrated study of selected areas of health and human performance, including problems in instruction and administration not usually addressed in the undergraduate curriculum. Course previously offered as HPEL 3010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 3114 Physiology of Exercise
Prerequisites: MATH 1513.
Description: A study of the various bodily systems, including major organs and tissues, and how they respond to acute and chronic exercise of varying intensity, duration and frequency. Course previously offered as PE 3114.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3123 Principles of Personal Training
Description: To develop an understanding of the basic skills and competencies in personal training and evaluation and prepare for the National Strength and Conditioning Association (NSCA) personal trainer certification exam. A detailed study of personal training inclusive of musculoskeletal and cardiorespiratory anatomy, resistance training, aerobic exercises, nutrition, health appraisal, fitness testing, flexibility, and plyometric training. The role of the personal trainer will also be addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3133 Ergogenic Aids for Sports and Human Performance
Description: To develop an understanding of the safety, efficacy, and efficiency of various nutritional, pharmacological, physiological, or psychological aids in improving health and human performance within active populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3233 General Medical Concepts
Prerequisites: HHP 2654, HHP 2664, and ZOOL 3204, CHEM 1314, HHP 3673.
Description: Specific pathologies, medical conditions, and possible avenues for treatment of non-orthopedic conditions. Based in current medical research, theory and practical outcomes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3333 Ethics in Sports Administration and Coaching
Description: Exploration of the ethical, legal, and professional dilemmas that occur in athletic administration and coaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3433 Early Laboratory Clinical Experiences in Physical Education
Prerequisites: HHP 1753 or consent of the instructor.
Description: The initial pre-professional clinical experience for schools, kindergarten through grade twelve, with primary duties including assisting in physical education classes. Required for full admission to Professional Education. Graded on a pass-fail basis. Previously offered as HHP 3431.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3443 Psychosocial Aspects of Sport and Coaching
Description: Examination of the psychological aspects of sport that impact the performances of coaches and athletes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3553 Theory and Practice of Coaching
Description: The purpose of the course is to introduce and analyze the essential concepts and knowledge concerned with coaching in sports and related areas. This course provides a platform from which deeper knowledge in specific sub disciplines can be acquired through class specialization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3663 Biomechanics
Prerequisites: HHP 2654.
Description: The study of anatomical mechanical phenomena underlying human motion. Application of biomechanical concepts to a wide variety of exercise, fundamental movement, sport and physical activity. Course previously offered as PE 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3753 Methods in Teaching Elementary Physical Education
Prerequisites: HHP 1753, and HHP 1843, and HHP 3433.
Description: Instructional styles, implementation of behavioral goals and objectives through unit and lesson preparation, teaching methods and classroom management. Course previously offered as PE 3753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3773 Methods in Teaching Secondary Physical Education
Prerequisites: HHP 1753, and HHP 1843, and HHP 3433.
Description: Instructional styles, implementation of behavioral goals and objectives through unit and lesson preparation, teaching methods and classroom management. Course previously offered as PE 3773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3883 Coaching Internship
Description: Experience working with individual athletes, teams, coaches, and others in a practical setting.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 3924 Therapeutic Exercise
Prerequisites: HHP 3802.
Description: Scientific methods used in therapeutic exercise and rehabilitation of injuries. Investigation of mechanisms of injury, anatomical structures involved and methodological approach in designing rehabilitative programs. Course previously offered as HHP 3923, HHP 4923, and HLTH 4922.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 3933 Tactical Strength and Conditioning
Prerequisites: Exercise Science major, or consent of instructor
Description: Theoretical and practical knowledge necessary to design safe and effective strength and conditioning programs for improving human performance for the Tactical Athlete (i.e., law enforcement, firefighters, and military personnel). Emphasis will be placed on the fundamental principles underlying the prescription of aerobic and anaerobic fitness and performance regimes to enhance occupational performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 3993 Building and Sustaining a Successful Sports Program
Description: Students learn skills and knowledge necessary to build a successful and sustainable sports program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4010 Directed Study
Prerequisites: Written approval by department head.
Description: Supervised readings, research or independent study of trends and issues related to the area of health, physical education or leisure services. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4013 Motor Control and Learning
Prerequisites: BIOL 3204 or HHP 3114 or HHP 4064
Description: An in-depth study of the neural control of movement, motor learning and performance. Particular emphasis will be placed on the neural and physiological basis of human movement, motor learning theory, and the development of motor abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4064 Neuroanatomy
Description: Comprehensive overview of the normal structure and function of the nervous system and its divisions under conditions of normal health as well as disease. Designed for neuroscientists, pre-medical, and health professions students. An introduction to clinically-oriented neurological assessment will be provided. Previously offered as HHP 4063.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4083 Physiology of Aging
Description: This course will focus on how key physiological systems, such as musculoskeletal, neuromuscular, and sensory organs, develop and function throughout different phases of the human lifespan. Additionally, pathophysiologies associated with physical performance and age-related declines of these systems will be discussed at length.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4093 Physiology of Oxygen Transport with Exercise
Description: To provide students with a foundation of pulmonary and cardiovascular adjustments responsible for oxygen transport during acute exercise in humans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4124 Principles of Strength and Conditioning
Description: Designing and implementing safe and effective strength training and conditioning programs and apply exercise prescription principles for training, injury prevention, and reconditioning. This course is also designed to prepare students for the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) exam. Previously offered as HHP 4123.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4243 Research Methods in Athletic Training
Prerequisites: STAT 2013.
Description: Interactive study of importance and process of conducting ethical research in athletic training and the healthcare professions. Emphasis placed on research design, ethics, collection of data, and the dissemination of results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4443 International Perspectives of Coaching
Prerequisites: Permission of the Instructor.
Description: Students will acquire experiential coaching opportunities in an international environment, and will design and deliver coaching across a variety of sports and across multiple age groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4451 Athletic Training Practicum V
Prerequisites: Successful completion of HHP 3461.
Description: Directed observation in supervised advanced laboratory and clinical experiences in athletic training.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4461 Athletic Training Practicum VI
Prerequisites: Successful completion of HHP 3233, HHP 4451.
Description: Directed observation in supervised advanced laboratory and clinical experiences in athletic training.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

HHP 4480 Internship in Health and Human Performance
Prerequisites: Last semester senior standing with cumulative GPA of 2.50.
Description: Supervised experience in school (physical education and health), community worksite or athletic training settings in order to qualify or prepare for appropriate teaching and professional certification. Course previously offered as PE 4480. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4643 School Health and Safety for Physical Educators
Description: Health and safety content for which physical educators are held responsible.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4723 Assessment in Physical Education
Prerequisites: Full admission to professional education.
Description: Evaluation techniques commonly used by physical educators and health professionals to measure knowledge, attitudes, sport skill proficiency and physical fitness. Course previously offered as PE 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4733 Organization, Administration and Curriculum in Physical Education and Athletics
Prerequisites: HHP 3753, HHP 3773 or concurrent enrollment; full admission to professional education.
Description: Curricular design and management of physical education (P-12) and athletic programs. Course previously offered as PE 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4773 Principles of Exercise Testing and Prescription
Prerequisites: HHP 3114.
Description: Study of principles of exercise testing including submaximal and maximal tests, exercise and basic electrocardiography, and guidelines for recommending exercise as related to health promotion and exercise science. Course previously offered as HLTH 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4793 Adapted Physical Education
Prerequisites: HHP 3753, HHP 3773, full admission to Professional Education.
Description: Cognitive and psychomotor characteristics of disabling conditions, needs and challenges of educating the exceptional learner in the regular physical education program. Course previously offered as PE 4793.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4933 Administration and Organization of Athletic Training Programs
Prerequisites: HHP 4451.
Description: The administration and organization of athletic training programs including planning and implementation, certification procedures, code of professional practice, safety standards and resource management. Course previously offered as HLTH 4933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 4960 Internship in AES: Sport and Coaching Science
Prerequisites: HHP 3114 and HHP 3553
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a, hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the intern experience rests on the supervising faculty and the internship supervisor. Graded Pass/Fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4970 Internship AES: Pre-Professional
Prerequisites: HHP 3114 & HHP 4773
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the internship experience rests on the supervising faculty and internship supervisor. Graded pass/fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 4980 Internship in AES: Strength and Conditioning
Prerequisites: HHP 3114 & HHP 4124
Description: The internship program for Applied Exercise Science (AES) at Oklahoma State University is intended for students to observe and gain practical experience in a professional environment in which they plan to work as a career. The internship experience consists of securing a placement such as a, hospital setting, rehabilitation clinic, commercial fitness site, athletic trainer, athletic strength and conditioning department, or similar areas. Evaluation of the intern experience rests on the supervising faculty and the internship supervisor. Graded pass/fail.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5000 Master's Thesis
Description: Independent research required of candidates for master's degree. Credit awarded upon completion of thesis. Course previously offered as HPEL 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5010 Seminar
Description: Selected topics from the profession not covered in other courses. Presentation and critique of research proposals and results. Course previously offered as HPEL 5010. Offered for variable credit, 1-2 credit hours, maximum of 4 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5020 Health and Human Performance Workshop
Description: Workshop in selected areas of health and human performance. Course previously offered as HPEL 5020. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5030 Field Problems in Health and Human Performance
Description: Individual investigations of issues in the areas of health and human performance. Course previously offered as HPEL 5030. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 5033 Advanced Techniques in Orthopedic Assessment
Description: Knowledge in evaluating various upper and lower extremity orthopedic injuries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5053 Research Design in Leisure, Health and Human Performance
Prerequisites: PSYC 5303 or STAT 5013.
Description: Research design with applicability toward leisure, health and human performance. Conceptual understanding of theory, tools and processes involved in designing research. Course previously offered as LEIS 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5064 Neuroanatomy
Description: Comprehensive overview of the normal structure and function of the nervous system and its divisions under conditions of normal health as well as disease. Designed for neuroscientists, pre-medical, and health professions students. An introduction to clinically-oriented neurological assessment will be provided. Previously offered as HHP 5063.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

HHP 5073 Psychological Aspects of Sport
Description: Psychological foundations of sport emphasizing performance enhancement by athletes through psychological training techniques. Course previously offered as HPEL 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5083 Physiology of Aging
Description: This course will focus on how key physiological systems, such as musculoskeletal, neuromuscular, and sensory organs, develop and function throughout different phases of the human lifespan. Additionally, pathophysiologies associated with physical performance and age-related declines of these systems will be discussed at length.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5093 Physiology of Oxygen Transport with Exercise
Description: To provide students with a solid foundation of the pulmonary and cardiovascular adjustments responsible for oxygen transport during acute exercise in humans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5523 Current Readings in Health
Description: Contemporary research, literature, projections and views as applied to total health and well-being. Course previously offered as HPEL 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5603 Principles of Performance Enhancement
Prerequisites: HHP 2654, HHP 3114, ZOOL 3204.
Description: Theoretical foundation of specific tenets of exercise and performance enhancement. Upon successful course completion students will be eligible to sit for the National Academy of Sports Medicine (NASM) examination for NASM Performance Enhancement Specialist certification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5703 Principles of Corrective Exercise
Description: A scientific approach to corrective exercise program design and implementation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5733 Motor Learning
Description: Research in psychology and physical education relevant to the understanding of the nature and basis of motor skill learning. Course previously offered as HPEL 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5823 Applied Neuromuscular Physiology
Prerequisites: HHP 2654.
Description: Structure and behavior of the human body, especially as it pertains to movement. Particular emphasis will be placed on neuroanatomy, the muscular system, and the neurophysiological basis of human movement. An introduction to clinical motor-related disorders will also be provided. Course previously offered as HPEL 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5843 Applied Biomechanics
Prerequisites: HHP 5823
Description: Instruction and hands-on experience in the applied techniques to measure human movement and performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
Additional Fees: HPE/CPSY Consummable Mat fee of $10 applies.

HHP 5853 Clin Ex Test & Prescript
Prerequisites: HHP 3114.
Description: An in-depth study of the principles and application of clinical exercise testing including submaximal and maximal tests, oxygen consumption, and electrocardiography. Guidelines to prescribing individualized exercise plans will also be covered. Special attention will be paid to clinical variables and special populations. Course previously offered as HPEL 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
Additional Fees: HPE/CPSY Consummable Mat fee of $15 applies.

HHP 5873 Human Bioenergetics
Prerequisites: HHP 3114.
Description: Human energy production, utilization and storage in response to exercise. Course previously offered as HPEL 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 5923 Readings in Neurophysiology
Prerequisites: HHP 5823: Applied Neuromuscular Anatomy and Neurophysiology.
Description: Establishes a foundation in neurophysiology, particularly relating to the neural control of human movement. Developed through examining original research, especially the seminal articles from this field with special emphasis on areas of contention and controversy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 6000 Doctoral Dissertation
Description: Exploration and presentation of selected topics and research in health and human performance. Course previously offered as HPEL 6000. Offered for variable credit, 1-30 credit hours, maximum of 30 credit hours.
Credit hours: 1-30
Contact hours: Contact: 1-30 Other: 1-30
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6010 Independent Study in Health and Human Performance
Prerequisites: Consent of instructor.
Description: Supervised readings, research or independent study of trends and issues related to the areas of health and human performance. Course previously offered as HPEL 6010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6020 Research Colloquium
Description: Exploration and presentation of selected topics and research in health and human performance. Course previously offered as HPEL 6020. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

HHP 6063 Grant Writing in Kinesiology, Applied Health, and Recreation
Prerequisites: Consent of instructor.
Description: Develop competitive grant writing skills, budget preparation, identification and selection of funding opportunities, and understanding the review and awards process. Course Previously offered as HHP 6060.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

HHP 6083 Biomedical Signal Acquisition
Description: Writing custom software for use in a laboratory setting using LabVIEW. Intended for any lab-based science degree programs in which signals are acquired and analyzed, especially BIOMEDICAL SIGNALS. Acquiring data, interfacing with laboratory equipment, and analyzing and organizing data, with self-designed custom software program. No prior computer programming knowledge required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

LEIS 1232 Beginning Golf
Description: Theory and practice of basic skills, rules, terminology and etiquette.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1242 Beginning Tennis and Racquetball
Description: Theory and practice of tennis and racquetball; basic skills, rules, terminology, and game strategy for singles and doubles play. No credit for students with credit in LEIS 1252.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1252 Beginning Tennis
Description: Theory and practice of basic skills, rules, terminology and game strategy for singles and doubles play. No credit for students with credit in LEIS 1242.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1322 Bowling
Description: Theory and practice of approaches, deliveries, releases and mechanical principles involved in aiming and follow through.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1342 Physical Fitness
Description: Theory and practice of aerobic and weight training activities with learning experiences designed to promote physical fitness.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1352 Weight Training
Description: Improvement of muscular strength and endurance in the major muscle groups of the body through progressive resistive exercise. Fundamental anatomy, physiology, mechanical principles, methods and techniques as applied to weight training programs.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 1362 Self Defense
Description: Theory and practice of self defense; scientific principles of gravity and body control over opposing forces, and principles of contest judo.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2112 Rock Climbing
Description: Theory and practice in the basics of technical rock climbing, bouldering and spelunking.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2122 Backpacking and Hiking
Description: Theory and practice of outdoor skills and leadership techniques for executing and evaluating a wilderness activity.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 2322 Recreational Dance
Description: Theory and practice of traditional social dances and a variety of "free style" dance forms.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Leisure Performance Activity

LEIS 6043 Ethical Issues in Health, Leisure, and Human Performance
Prerequisites: Admission to the Graduate College.
Description: A survey of ethical issues with specific emphasis on health, leisure, and human performance in higher education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 2403 Recreation and Society (G)
Description: Exploration of the influence of recreation and leisure culture internationally to understand how society's view impacts individuals, families & communities, simultaneously. Students will engage multiple resources (readings, meetings, site visits, multidisciplinary discussions, critical reflections through written & video production) on the ways recreation and leisure practices are internationally influenced by economic, political & social drivers. Prev. offered as RMTR 2403 & RMRT 2403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: International Dimension

RM 2413 Introduction to Recreation Management
Description: The nature, scope and significance of recreation and leisure. Delivery systems for recreation, major program areas, and the interrelationship of special agencies and institutions serving the recreation needs of society. Introducing the history, philosophies, and theories related to Recreation Management. Previously offered as RMTR 2413 and RMRT 2413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 2463 Recreation Management and Recreational Therapy Laboratory
Description: Lecture, discussion and experiential learning of recreation and recreational therapy activities. Adapted activities, small and large group games, sports, arts and crafts, music, dance, drama, outdoor, aquatics, wellness, and cultural activities are included. Students also learn to determine what activities to select for various target populations. Previously offered as RMTR 2463 and RMRT 2463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RM 2473 Foundation of Recreation Management Leadership
Description: Introduction to the principles and practical applications of group leadership techniques, problem solving, supervision of personnel and participants in recreation services and settings. Previously offered as RMTR 2473 and RMRT 2473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3010 Workshop in Recreation Management
Prerequisites: Instructor Permission.
Description: Intensive training program on a specialized topic in Recreation Services. Previously offered as RMTR 3010 and RMRT 3010. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 3212 Lifeguard Training
Description: Theory and practice of water safety and rescue skills essential for lifeguards. May obtain American Red Cross Lifeguard Training Certification. Previously offered as RMTR 3212 and RMRT 3212.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3313 Camp Operations and Programs
Description: Operations and programming for day and resident camps. Includes all camp settings and camper populations. Previously offered as RMTR 3313 and RMRT 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3463 Recreation Program and Event Planning
Prerequisites: RM 2413 and RM 2463.
Description: Emphasis on planning, organization, supervision, promotion and evaluation of recreation programs and special events. Previously offered as RMTR 3463 and RMRT 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 3483 Jr. Internship in Recreation Management
Prerequisites: RM 2413 and RM 2463.
Description: Supervised practical experience with leadership responsibilities for planning, leading, and evaluating recreation activities and programs. Graded on pass-fail basis. Previously offered as RMRT 3483.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4010 Directed Studies in Recreation and Athletic Management
Prerequisites: Consent of instructor.
Description: Supervised readings, research or study of trends and issues related to Recreation and Athletic Management. Previously offered as RMRT 4010 and RMTR 4010. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4013 Recreation and a Technologically Advanced Society
Prerequisites: RM 2413 and RM 2463.
Description: Investigate the recreational needs of modern society locally and globally. Consider new methods of recreation participation and communicating recreation information to target populations and devise strategies to implement these methods. Utilize modern tools to incorporate recreation activities into participants' lives. Previously offered as RMRT 4013. May not be used for degree credit with LEIS 5013 or RMRT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4023 Recreation Specialization and Serious Leisure
Prerequisites: RM 2413 and RM 2463.
Description: The Serious Leisure Theory focuses on leisure participation in which a person is highly concentrated on one pursuit. This course investigates the details of the theory, how this theory can be observed in participants, and how to facilitate recreation and leisure programs to fulfill the needs of those engaged in Serious Leisure pursuits. Previously offered as RMRT 4023. May not be used for degree credit with LEIS 5033 or RMRT 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4213 Water Safety Instructorship
Description: Methods of teaching swimming and aquatic safety with practical application of knowledge, principles and analysis of skills. May obtain American Red Cross Water Safety Instructor's Certification (WSI). Previously offered as RMTR 4213 and RMRT 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4433 Evaluation in Recreation Management Services
Description: Methods, techniques and application of the evaluation process related to a wide variety of recreation management functions: participant, programs, personnel, facilities and organization. Previously offered as RMTR 4433 and RMRT 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4453 Outdoor Education and Interpretation
Description: Development of a holistic approach to teaching and learning in the outdoors. Learning in, about, and for, the out-of-doors as a process for acquiring skills with which to enjoy outdoor pursuits. Previously offered as RMTR 4453 and RMRT 4453. May not be used for degree credit with LEIS 5603 or RMRT 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4463 Areas and Facilities in Recreation Management
Prerequisites: RM 3463 or consent of instructor.
Description: Planning, design and development of areas and facilities in recreation service delivery systems. Previously offered as RMTR 4463 an RMRT 4463. May not be used for degree credit with LEIS 5703 or RMRT 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4473 Recreation in the Natural Environment
Description: Theory and practical application of outdoor recreation concepts with emphasis on philosophies, principles, policies, economics, trends and problems. Previously offered as RMTR 4473 and RMRT 4473. May not be used for degree credit with LEIS 5403 or RMRT 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4481 Senior Seminar in Recreation Management
Prerequisites: RMRT major and completion of a minimum of 15 hours of Recreation Management core or Instructor Permission.
Description: Culmination of course work in Recreation Management. Examine professional practices and philosophies. Previously offered as RMTR 4481 and RMRT 4481.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4493 Administration of Recreation Services
Description: Decision-making, problem solving, personnel policies, legal issues, fiscal policies and budget procedures related to the delivery of recreation services. Previously offered as RMTR 4493 and RMRT 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4513 Recreation and Leisure Education
Prerequisites: RM 2463 and RM 3463.
Description: Models of recreation and leisure education discussed and practices in conjunction with enhancing student's ability with basic skills in facilitating optimal recreation pursuits. Previously offered as RMTR 4513 and RMRT 4513. May not be used for degree credit with LEIS 5513 or RMRT 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4553 Tourism in Recreation Settings
Description: Theory and foundations of the philosophy, principles and practices that associate tourism with recreation agencies and settings. Previously offered as RMTR 4553 and RMRT 4553. May not be used for degree credit with LEIS 5553 or RMRT 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4563 Entrepreneurial Recreation Management
Prerequisites: RM 3463 or consent of instructor.
Description: Introduction to the scope, characteristics and management aspects of the commercial recreation industry from an entrepreneurial perspective. Previously offered as RMTR 4563 and RMRT 4563. May not be used for degree credit with LEIS 5563 or RMRT 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4683 Administrative Documentation in Internship for Recreation Management
Prerequisites: Last semester senior year with cumulative GPA of 2.5, RM 4481 and co-requisite of RM 4680.
Description: Assignment based course that complements RM 4680 Internship in Recreation Management. Must be taken concurrently with RM 4680. Previously offered as RMTR 4683 and RMRT 4683.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4689 Senior Internship in Recreation and Athletic Management
Prerequisites: Last semester senior year with cumulative GPA of 2.5, RM 4481 and co-requisite of RM 4683.
Description: Supervised field work experience in Recreation and Athletic Management. Graded on a pass-fail basis. Must be taken concurrently with RM 4683. Same course as RM 4680.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RM 4713 Campus Recreation, Intramurals, and Sport
Description: Program operations, industry standards, and current issues surrounding these areas of the recreation industry. May not be used for degree credit with LEIS 5713 or RMRT 5713. Previously offered as RMRT 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RM 4943 Grant Writing and Nonprofit Management
Prerequisites: RM 2413 and RM 2463 or consent of instructor.
Description: Methods and techniques used in grant writing as well as the establishment of a nonprofit agency. Previously offered as RMTR 4943 and RMRT 4943. May not be used for degree credit with LEIS 5943 or RMRT 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 2433 Introduction to Recreational Therapy
Description: Theory and application of recreational therapy with emphasis on types of illnesses and disabilities, delivery systems, programming services. Previously offered as RMTR 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 3431 Recreation Management Practicum I
Prerequisites: RMRT 2413.
Description: Supervised practical experience with leadership responsibilities for planning, conducting and evaluating activities and programs. Graded on a pass-fail basis. Previously offered as RMTR 3431.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 3432 Recreation Management Practicum II
Description: Supervised practical experience with leadership responsibilities for planning, conducting and evaluating activities and programs. Previously offered as RMTR 3432. Graded on a pass-fail basis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5000 Master's Thesis
Prerequisites: Consent of major professor.
Description: Research in Recreation Management and/or Recreational Therapy for master's degree. Previously offered as LEIS 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5010 Directed Study in Recreation Management
Prerequisites: Permission of Instructor.
Description: Directed study within recreation management. Previously offered as LEIS 5010. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5013 Recreation and a Technologically Advanced Society
Description: Investigate the recreational needs of modern society locally and globally. Consider new methods of recreation participation and communicating recreation information to target populations and devise strategies to implement these methods. Utilize modern tools to incorporate recreation activities into participants' lives. May not be used for degree credit with RMRT 4013 or RM 4013. Previously offered as LEIS 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5020 Workshop in Recreation Management
Prerequisites: Consent of instructor.
Description: Advanced instruction on specialized topic areas in recreation management. Previously offered as LEIS 5020. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5023 Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services
Description: The application and interpretation of the law as it applies to teachers, coaches and administrators of recreation management, health, physical education, and leisure services programs. Course previously offered as HHP 5023 and LEIS 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5030 Field Problems in Recreation Management
Prerequisites: Consent of instructor.
Description: Applied research within the practice of recreation management. Previously offered as LEIS 5030. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5033 Recreation Specialization and Serious Leisure
Description: The Serious Leisure Theory focuses on leisure participation in which a persons is highly concentrated on one pursuit. This course investigates the details of the theory, how this theory can be observed in participants, and how to facilitate recreation and leisure programs to fulfill the needs of those engaged in Serious Leisure pursuits. May not be used for degree credit with RMRT 4023 or RM 4023. Previously offered as LEIS 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5073 Recreational Therapy and Geriatrics
Prerequisites: LEIS 2433 or consent of instructor.
Description: Role of Recreational Therapists (RT) working with geriatric population. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as LEIS 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5110 Directed Studies in Recreational Management
Prerequisites: Consent of Instructor.
Description: Supervised readings, research or study of trends and issues related to Recreation Management. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5113 Graduate Internship in Recreation Management
Prerequisites: Graduate student status.
Description: Supervised practical experience with leadership responsibilities for planning, leading, and evaluating activities and programs. Previously offered as LEIS 5113.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5120 Workshop in Recreational Therapy
Prerequisites: Consent of Instructor.
Description: Advanced instruction on specialized topic areas in recreational therapy. Offered for variable credit, 1-6 hours per semester for a maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5130 Field Problems in Recreational Therapy
Description: Applied research within the practice of recreational therapy. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5231 Formal Report in RMRT
Prerequisites: Consent of instructor.
Description: Applied research utilized in the creation of a formal report as a culminating product of a master's program.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 5403 Outdoor Recreation
Prerequisites: Graduate Student Standing.
Description: Theory and practical application of outdoor recreation concepts with emphasis on programs, pursuits, philosophies, principles, policies, economics, trends and problems. Course previously offered as HPEL 5403 and LEIS 5403. May not be used for degree credit with RMTR 4473, RMRT 4473 or RM 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5413 Organization and Administration of Recreation and Leisure Services
Prerequisites: Graduate Student Standing.
Description: Systematic approach to problem solving and decision making for structure, personnel management, financing, and program development for recreation and leisure service delivery systems. Course previously offered as HPEL 5413 and LEIS 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5423 Supervision of Recreation Management People and Programs
Prerequisites: Graduate standing.
Description: Administrative supervision and leadership in Recreation Management delivery systems. An examination of theories and practices as related to personnel, participants, and facility resources. Previously offered as LEIS 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5433 Current Issues in Recreation Management
Description: Current issues related to the recreation management services profession. Investigation, discussion and analysis of contemporary issues. Previously offered as HPEL 5443 and LEIS 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5443 Social Foundations of Recreation Management
Prerequisites: Graduate standing.
Description: Social, psychological, philosophical and historical foundations of recreation and recreation management. The impact of social forces on recreation and leisure throughout history. Course previously offered as HPEL 5443 and LEIS 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5453 Recreation Management and Recreational Therapy Experiential Learning Lab
Description: Lecture, discussion, and experiential lab investigating human behaviors, thoughts, attitudes, and practices related to recreation. The understanding of the complexity of providing recreation and recreational therapy services to a variety of target populations. Previously offered as LEIS 5453.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RMRT 5463 Issues in Recreational Therapy
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: Current issues in recreational therapy with emphasis on accreditation, certification, licensure, quality assurance and ethics. Previously offered as LEIS 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5473 Recreation and Aging
Description: Overview of the recreation needs and services for older adults, with emphasis upon the delivery system and recreation activities. Course previously offered as HPEL 5473 and LEIS 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5483 Recreational Therapy for Persons with Physical Disabilities
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: The role of recreational therapy in the treatment and rehabilitation of individuals with physical disabilities. Emphasis on terminology, prognosis, etiology or specific disabilities, program development, assessment. Previously offered as LEIS 5483 and HPEL 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5493 Recreational Therapy in Mental Health and Intellectual Disabilities
Prerequisites: LEIS 2433 or professional experience in recreational therapy.
Description: The role of recreational therapists (RT) in mental health or intellectual disabilities with emphasis upon client prognosis and methodologies of treatment programs. Previously offered as LEIS 5493 & HPEL 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5513 Recreation and Leisure Education
Description: Models of recreation leisure education discussed and practices in conjunction with enhancing student's ability with basic skills of recreation and leisure counseling to facilitate optimal recreation and leisure pursuits. May not be used for degree credit with RMTR 4513, RMRT 4513 or RM 4513. Previously offered as LEIS 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5553 Tourism in Recreation Settings
Description: Theory and foundations of the philosophy, principles and practices that associate tourism with recreation agencies and settings. May not be used for degree credit with RMTR 4553, RMRT 4553 or RM 4553. Previously offered as LEIS 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5563 Entrepreneur Recreation Management
Description: Introduction to the scope, characteristics and management aspects of the commercial recreation industry from an entrepreneurial perspective. May not be used for degree credit with RMTR 4563, RMRT 4563 or RM 4563. Previously offered as LEIS 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5603 Outdoor Education
Description: Development of a holistic approach to teaching and learning in the outdoors. Learning in, about, and for, the out-of-doors as a process for acquiring skills with which to enjoy outdoor pursuits. May not be used for degree credit with RMTR 4453, RMRT 4453 or RM 4453. Previously offered as LEIS 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5703 Areas and Facilities in Recreation Management Services
Description: Planning, design and development of areas and facilities in recreation management service delivery systems. May not be used for degree credit with RMTR 4463, RMRT 4463 or RM 4463. Previously offered as LEIS 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5713 Campus Recreation, Intramurals, and Sport
Description: Program operations, industry standards, and current issues surrounding these areas of the recreation industry. May not be used for degree credit with RMRT 4713 or RM 4713. Previously offered as LEIS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5933 Advanced Methods in Recreational Therapy
Description: Theoretical and practical examination of contemporary implementation procedures used in recreational therapy practice. May not be used for degree credit with RMRT 4933 or RT 4933. Previously offered as LEIS 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 5943 Grant Writing and Nonprofit Management
Description: Methods and techniques used in grant writing as well as the establishment of a nonprofit agency. Previously offered as LEIS 5943. May not be used for degree credit with RMTR 4943, RMRT 4943 or RM 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6000 Doctoral Dissertation in Recreation Management and/or Recreational Therapy
Description: Required of all candidates for the Doctor of Philosophy degree in Recreation Management. Credit is given upon completion of the dissertation. Previously offered as LEIS 6000. Offered for variable credit, 1-9 credit hours, maximum of 25 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6010 Independent Study in Recreation Management
Prerequisites: Consent of instructor.
Description: Supervised readings, research or study of trends and issues related to recreation management studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours. Previously offered as LEIS 6010.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6013 Ethical and Professional Issues in RMRT Higher Education
Description: Introduction to higher education issues relevant to professional preparation in recreation management and recreational therapy curricula, including roles of the educator, curriculum development, implementation and management, instructional strategies and accreditation. Previously offered as LEIS 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6020 Recreation Management Research Colloquium
Prerequisites: Graduate student standing.
Description: Exploration and presentation of selected topics and research in recreation management studies. Previously offered as LEIS 3020. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours. Previously offered as LEIS 6020.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6023 Special Topics in Recreation
Prerequisites: Admission to the Graduate College.
Description: Special topics related to recreation, recreational therapy and leisure services. Investigation, discussion and analysis of contemporary topics. Previously offered as LEIS 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6110 Independent Study in Recreational Therapy
Prerequisites: Consent of Instructor.
Description: Supervised readings, research or study of trends and issues related to recreational therapy studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6120 Recreational Therapy Research Colloquium
Prerequisites: Consent of instructor
Description: Exploration and presentation of selected topics and research in recreational therapy studies. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RMRT 6123 Curriculum Development in Kinesiology, Applied Health and Recreation
Description: Identification and analysis of curriculum theories, approaches to traditional and innovative curriculum development, and relating curriculum development to accreditations with the fields of Kinesiology, Applied Health, and Recreation. Same course as HHP 5723 and HHP 6723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6223 Graduate Writings in RMRT
Description: This course will address writing types involving theory, case reports, and manuscript preparation types in Recreation Management and Recreational Therapy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6323 Graduate Readings in Recreation Management and Recreational Therapy
Description: A survey of professional literature in the Recreation Management and Recreational Therapy fields and applying that to current research topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6453 Recreation Management and Recreational Therapy Behavior
Description: The advanced study of recreation and human behavior. Research related to the understanding of how and why humans engage in recreation, leisure, and play. Previously offered as LEIS 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6723 Curriculum Development in Recreation Management, Recreational Therapy, and HHP
Description: Historical, philosophical, and psychological examination of curriculum development, theories, trends, and structure. Identification and analysis of curriculum theory provides an emphasis on traditional and innovative approaches to curriculum development in recreation management, recreational therapy, kinesiology, health, and human performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RMRT 6763 Management in Health, Human Performance, and Recreation Management & Recreational Therapy Setting
Prerequisites: Admission to the Graduate College.
Description: Essential elements of organizational structures, management issues, functions and styles in public, non-profit and private settings in health, human performance, and recreation management & recreational therapy. Course previously offered as HHP 5763, HPEL 5763 and LEIS 6763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 2433 Introduction to Recreational Therapy
Description: Theory and application of recreational therapy with emphasis on types of illnesses and disabilities, delivery systems, programming services. Previously offered as RMTR 2433 and RMRT 2433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 2443 Contemporary Issues in Diversity (DS)
Description: Exploration of the primary and secondary dimensions of diversity and their impact on society. Individual and institutional responses to cultural diversity. Previously offered as EDUC 2443, LEIS 2443, RMTR 2443, and RMRT 2443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec
General Education and other Course Attributes: Diversity, Society & Human Behavior

RT 2463 Recreational Therapy Experiential Laboratory
Description: Lecture, discussion, and experiential learning of recreation and recreational therapy activities. Adapted activities, small and large group games, sports, arts and crafts, music, dance, drama, outdoor, aquatics, wellness, and cultural activities are included. Students also learn to determine what activities to select for various target populations. Same course as RM 2463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Kinesiology, Appl Health, Rec

RT 3110 Workshop in Recreational Therapy
Description: Intensive training program on a specialized topic in recreational therapy. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 3212 Psychomotor Development
Description: Fundamental aspects of motor development for infants, children, youth and adults. Course previously offered as RT 3213, PE 2712 and HHP 2712.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3413 Recreational Therapy and Mental Illness/Intellectual Disabilities
Prerequisites: RT 2433.
Description: The role of Recreational Therapists (RT) working with individuals diagnosed with mental illness and/or intellectual disabilities. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as RMTR 3413 and RMRT 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3423 Recreational Therapy in Geriatric Practices
Prerequisites: RT 2433.
Description: The role of Recreational Therapists (RT) working with the geriatric population. Topics include terminology, etiology, prognosis, assessment, and program development in RT. Previously offered as RMTR 3423 and RMRT 3423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3433 Recreational Therapy and Physical Disabilities
Prerequisites: RT 2433.
Description: The role of Recreational Therapists in the rehabilitation of individuals with physical disabilities. Topics include terminology, etiology, prognosis of specific problems, assessment, and program development in RT. Previously offered as RMTR 3433 and RMRT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3441 Warm Water Therapy Lab
Description: This aquatic lab course is designed to give students valuable hands-on experience with participants with disorders ranging from pre-school through senior citizen population. Previously offered as RMTR 3441 and RMRT 3441.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Kinesiology, Appl Health, Rec

RT 3443 Assessment in Recreational Therapy
Prerequisites: RT 2433 or Instructor Permission.
Description: Assessments and documentation used in the Recreational Therapy field and including reviewing and practicing with various assessments, writing notes using the various forms of documentation, writing goals and objectives, and combining knowledge and skills in a comprehensive assignment. Previously offered as RMRT 3443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3473 Medical Terminology and Procedures for Recreational Therapy
Description: The course covers the basic knowledge documentation including vocabulary, abbreviations, symbols, prefixes, and suffixes typically used in clinical settings in which Recreational Therapists practice. Taken concurrently with Junior Internship Courses. Previously offered as RMTR 3473 & RMRT 3473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 3483 Junior Internship in Recreation Therapy
Prerequisites: RM 2413, RM 2473, RT 3441, and concurrent enrollment in RT 3473 and one course in emphasis areas of study (Recreational Therapy or Leisure Service Management).
Description: Supervised practical experience (minimum 200 contact hours) with leadership responsibilities for planning, conducting and evaluating activities and programs. Previously offered as RMTR 3480, RMRT 3480 and RT 3480. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 3843 Recreational Therapy Facilitation Techniques & Interventions
Description: Facilitation techniques, leadership, and interventions for the various diagnostic groupings, treatment settings, and individuals seeking assistance from a recreational therapist. Previously offered as RMRT 3843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4110 Directed Studies in Recreational Therapy
Description: Supervised readings, research or study of trends and issues related to recreational therapy studies. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4443 Recreational Therapy and Child Development
Description: This applied learning course will provide students with the opportunity to utilize the recreational therapy process with young children. Through clinical supervision, students will implement assessment, planning, implementation, evaluation, and documentation of recreational therapy interventions with young children.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4483 Administrative Documentation in Internship for Recreational Therapy
Prerequisites: Last semester senior year with cumulative GPA of 2.5 and RT 3480, RM 4481 and co-requisite of RT 4480.
Description: Assignment based course that complements RT 4480 Internship in recreational therapy. Must be taken concurrently with RT 4480. Previously offered as RMTR 4483 and RMRT 4483.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4489 Senior Internship in Recreational Therapy
Prerequisites: Last semester senior year with cumulative GPA of 2.5 and completion of RT 3483, RM 4481 and co-requisite of RT 4483.
Description: Supervised fieldwork experience in recreational therapy. Graded on a pass-fail basis. Must be taken concurrently with RT 4483. Same course as RT 4480.
Credit hours: 9
Contact hours: Contact: 9 Other: 9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Kinesiology, Appl Health, Rec

RT 4581 Senior Seminar in Recreational Therapy
Prerequisites: RT 2433 or Instructor Permission.
Description: Culminating course work in Recreational Therapy examining current issues, professional practices, and professional philosophy. Previously offered as RMRT 4581.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4833 Recreational Therapy and Pediatrics
Prerequisites: RT 2433 or Instructor Permission.
Description: The role of Recreational Therapists in the treatment of the pediatric population (ages 0-18 years) including terminology, etiology, prognosis of specific problems, assessment, treatment, and program development in recreational therapy. Previously offered as RMRT 4833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4843 Recreational Therapy & Healthcare Administration
Description: Decision making, problem solving, administrative structures, fiscal policies/procedures, and legal issues related to healthcare administration and recreational therapy. Previously offered as RMRT 4843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

RT 4933 Advanced Methods In Recreational Therapy
Prerequisites: RM 3483 and consent of instructor.
Description: Theoretical and practical examination of contemporary implementation procedures used in recreational therapy practice. Previously offered as RMTR 4933 and RMRT 4933. May not be used for degree credit with LEIS 5933 or RMRT 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Kinesiology, Appl Health, Rec

Undergraduate Programs

- Applied Exercise Science: Pre-Professional, BS (p. 2180)
- Applied Exercise Science: Sport and Coaching Science, BS (p. 2183)
- Applied Exercise Science: Strength and Conditioning, BS (p. 2185)
- Recreation and Athletic Management: Recreation Management, BS (p. 2187)
- Recreational Therapy, BS (p. 2191)
- Recreational Therapy: Pre-Professional Occupational Therapy, BS (p. 2193)

Graduate Programs

Graduate Program - Applied Exercise Science & Health and Human Performance
Doug Smith, PhD—Professor and Graduate Coordinator
Graduate Program - Recreation Management and Recreational Therapy; Leisure Studies
Tim Passmore, EdD—Professor and Graduate Coordinator
Graduate Certificate in Recreation and Leisure Management
Donna Lindenmeier, PhD—Associate Professor and Graduate Certificate Coordinator

MS in Health and Human Performance

The MS in Health and Human Performance offers two options: Applied Exercise Science and Health Promotion. The option in Applied Exercise Science studies how human movement improves overall physical health and fitness. The 36-hour degree offers a Thesis and Non-thesis (Creative Component) option. Our master's students strive to advance health, physical activity and sport performance through relevant clinical- and performance-based research and instruction. Graduates go on to earn their doctorate degree at reputable institutions across the country or obtain professional employment within the areas of applied health and strength and conditioning.

The health and human performance program also provides preparation at the master's level with an option of Health Promotion. The 36-hour degree offers a Thesis and Non-thesis (Creative Component) option. The program focuses on advancing the students understanding of the proximal and distal determinants of mental and physical health.

PhD in Health and Human Performance

The PhD in Health and Human Performance has two emphasis tracks: Exercise Physiology and Health Education and Promotion.

Our doctoral students with an emphasis in Exercise Physiology strive to advance health, prevention, physical activity and sport performance through relevant clinical- and performance-based research and instruction.

Our doctoral students with an emphasis in Health Education and Promotion meet their career needs and goals through (1) community-based, translational research and (2) classroom experiences focusing on social justice and diversity. The purpose and focus of this emphasis is to prepare excellent entry-level research scholars for formal and informal learning organizations

The PhD in Health and Human Performance is designed to permit flexibility within the Health discipline while assuring that all students in the program are provided the opportunity to develop research skills which facilitate functioning as future faculty members or scholar practitioners.

Master of Science in Recreation Management and Recreational Therapy

Beyond the baccalaureate level, the program in recreation management and recreational therapy provides preparation at the master's level across the discipline. Students develop a plan of study, under the advisement of a graduate committee and may focus on various emphasis areas in recreation, parks and leisure services or in recreational therapy. Graduates of the master's degree are typically employed in management and administrative positions in a wide variety of recreation, parks and leisure service settings. Graduates with a master's degree with the focus on Recreational Therapy are typically employed in healthcare settings to include hospitals, physical rehabilitation facilities, behavioral health, facilities, long-term care facilities and other facilities focused on healthcare. Graduates with a master's degree with a focus on Recreation Management are typically employed in areas such as campus recreation, municipal parks and recreation, military recreation, YMCAs, state parks and others. The master's degree is 36 credit hours beyond the bachelor's degree and many graduate assistantships are available for qualified students.

PhD in Health, Leisure and Human Performance, with an option in Leisure Studies

Students seeking the terminal degree in Leisure Studies engage in the PhD in HLHP. Those completing this program are well prepared for entry-level positions as faculty members in a wide range of colleges and universities. To facilitate student readiness to work in academia, doctoral students work closely with faculty, engage in coursework and examinations, and participate in opportunities for experiences in teaching, scholarship and service. Core learning experiences include an understanding of curriculum, applied ethics and administration, as well as developing an understanding of the common tripartite mission of most universities - scholarship, teaching, and service. The PhD requires 60 hours of coursework beyond the master's degree; many graduate assistantships are available for qualified students.

Minors

- Recreation Management (RM), Minor (p. 2190)
- Sports and Coaching Science (SPCS), Minor (p. 2196)

Faculty

Tim Passmore, EdD—Professor and Interim School Head
Professors: Bert Jacobson, EdD, FACSM; Douglas Smith, PhD
Associate Professors: Jay Dawes, PhD; Donna Lindenmeier, PhD
Assistant Professors: Breanne Baker, PhD; Shane Hammer, PhD; Michael Trevino, PhD
Teaching Assistant Professor: Jason Miller, PhD
Clinical Instructor: Kelley McCubbin

Applied Exercise Science: Pre-Professional, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 3.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1613	Trigonometry (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select one of the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
BIOL 1114	Introductory Biology (LN)	
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum GPA 3.00 with a minimum grade of "C"		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Hours Subtotal		**5**
Major Requirements		
Minimum GPA of 3.00 with a minimum grade of "C" or "P" in each course		
HHP 1703	Introduction to Exercise Science	3
HHP 2553	Basic Athletic Injury Management	3
HHP 2654	Applied Anatomy	4
HHP 2802	Medical Terminology for the Health Professions	2
HHP 3114	Physiology of Exercise	4
HHP 3663	Biomechanics	3
HHP 4124	Principles of Strength and Conditioning	4
HHP 4013	Motor Control and Learning	3
HHP 4773	Principles of Exercise Testing and Prescription	3
HHP 4480	Internship in Health and Human Performance (5 hours)	5
BIOC 3653	Survey of Biochemistry	3
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
CHEM 3013	Survey of Organic Chemistry	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
NSCI 2013	Principles of Human Nutrition (N)	3
NSCI 4133	Nutrition for Exercise and Sport	3
PHYS 1114	College Physics I (LN)	4
BIOL 1604	Animal Biology	4
BIOL 3204	Physiology	4
Hours Subtotal		**65**
Electives		
Select 10 hours		10
Hours Subtotal		**10**
Total Hours		**120**

Elective Suggestions

Code	Title	Hours
NSCI 3223	Nutrition Across the Life Span	3
NSCI 3543	Food and the Human Environment (GS)	3
HHP 3123	Principles of Personal Training	3
HHP 4480	Internship in Health and Human Performance (additional internship hours)	1-12
HHP 3933	Tactical Strength and Conditioning	3

HHP 4083	Physiology of Aging	3
HLTH 4783	Public Health and Aging	3
BIOL 3933	Research Methods	3
MICR 3033	Cell and Molecular Biology	3
BIOL 4215	Mammalian Physiology	5
BIOL 4223	Mammalian Physiology Capstone Laboratory	3
PHIL 3833	Biomedical Ethics (H)	3
PSYC 3013	Psychology of Motivation	3
RT 2443	Contemporary Issues in Diversity (DS)	3
STAT 4013	Statistical Methods I (Q)	3
BIOL 3123	Human Heredity (N)	3
BIOL 3214	Human Anatomy	4
BIOL 4253	Pharmacology	3
BIOL 4283	Endocrinology	3

Other Requirements

- 40 hours of upper-division coursework.
- Documentation of current first aid/CPR certification prior to completion of HHP 4480 Internship in Health and Human Performance.
- Required for graduation:
  a. 3.00 Overall GPA;
  b. 3.00 Overall GPA for enrollment in HHP 4480 Internship in Health and Human Performance;
  c. 3.00 GPA in College/Departmental Requirements; and
  d. 3.00 GPA in Major Requirements.
- The student must earn minimum grades of “C” or “P” in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1513 or MATH 1613	College Algebra (Q) or Trigonometry (Q)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
HHP 1703	Introduction to Exercise Science	3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
NSCI 2013	Principles of Human Nutrition (N)	3
	Hours	**13**
Sophomore		
Fall		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
CHEM 1225 or CHEM 1515	Chemical Principles II (LN) or Chemistry II (LN)	5
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
Course designated (A), (H), (N) or (S)		2
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
PHYS 1114	College Physics I (LN)	4
HHP 2654	Applied Anatomy	4
Course Designated (H)		3
3 Hours of Elective		3
HHP 2802	Medical Terminology for the Health Professions	2
	Hours	**16**
Junior		
Fall		
CHEM 3013	Survey of Organic Chemistry	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
BIOL 1604	Animal Biology	4
HHP 2553	Basic Athletic Injury Management	3
4 Hours Electives		4
	Hours	**16**
Spring		
BIOL 3204	Physiology	4
Course designated (G)		3
HHP 3663	Biomechanics	3
HHP 3114	Physiology of Exercise	4
Course Designated (S)		3
	Hours	**17**
Senior		
Fall		
HHP 4013	Motor Control and Learning	3
HHP 4773	Principles of Exercise Testing and Prescription	3
HHP 4124	Principles of Strength and Conditioning	4
BIOC 3653	Survey of Biochemistry	3

Course designated (H)		3
	Hours	**16**
Spring		
Course designated (D)		3
HHP 4970	Internship AES: Pre-Professional	5
NSCI 4133	Nutrition for Exercise and Sport	3
3 Hours of Elective		3
	Hours	**14**
	Total Hours	**120**

Applied Exercise Science: Sport and Coaching Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.0
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1613	Trigonometry (Q)	
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum GPA 2.00		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
NSCI 2013	Principles of Human Nutrition (N)	3
HHP 1703	Introduction to Exercise Science	3
HHP 2553	Basic Athletic Injury Management	3
HHP 2654	Applied Anatomy	4
Hours Subtotal		**15**
Major Requirements		
Minimum GPA of 2.00		
HHP 3114	Physiology of Exercise	4
HHP 3133	Ergogenic Aids for Sports and Human Performance	3
HHP 3333	Ethics in Sports Administration and Coaching	3
HHP 4013	Motor Control and Learning	3
HHP 3443	Psychosocial Aspects of Sport and Coaching	3
HHP 3553	Theory and Practice of Coaching	3
HHP 3663	Biomechanics	3
HHP 4124	Principles of Strength and Conditioning	4
HHP 4480	Internship in Health and Human Performance	5
HHP 4773	Principles of Exercise Testing and Prescription	3
NSCI 4133	Nutrition for Exercise and Sport	3
Hours Subtotal		**37**
Electives		
Minimum GPA of 2.00		
Select 27 hours from the following list:		27
HHP 3010	Health and Human Performance Workshop	
HHP 3123	Principles of Personal Training	
HHP 4010	Directed Study	
HHP 4733	Organization, Administration and Curriculum in Physical Education and Athletics	
MGMT 3943	Sports Management	
MGMT 3963	Social Issues in Sports Management	
NSCI 3223	Nutrition Across the Life Span	
NSCI 4373	Principles of Nutrition Education and Behavior Change	
RM 2473	Foundation of Recreation Management Leadership	
SPM 2843	Sports and the Media	
SPM 3843	Contemporary Sports Issues	
Hours Subtotal		**27**
Total Hours		**120**

Other Requirements:

- 40 Hours of upper-division coursework
- Required for Graduation:
  - 2.00 Overall GPA;
  - 2.00 Overall GPA for enrollment in HHP 4480.
  - 2.00 GPA in College/Departmental Requirements;
  - 2.00 GPA in Major Requirements
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
Course designated (D)		3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
HHP 1703	Introduction to Exercise Science	3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course Designated (H)		3
MATH 1513	College Algebra (Q)	3
NSCI 2013	Principles of Human Nutrition (N)	3
	Hours	**15**
Sophomore		
Fall		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
Course Designated (H)		3
HHP 3133	Ergogenic Aids for Sports and Human Performance	3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
Controlled Elective Course		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
PSYC 1113	Introductory Psychology (S)	3
HHP 3333	Ethics in Sports Administration and Coaching	3
HHP 2654	Applied Anatomy	4
Controlled Elective Course		3
Controlled Elective Course		3
	Hours	**16**
Junior		
Fall		
HHP 3553	Theory and Practice of Coaching	3
HHP 2553	Basic Athletic Injury Management	3
HHP 3443	Psychosocial Aspects of Sport and Coaching	3
HHP 3663	Biomechanics	3
Controlled Elective Course		3
	Hours	**15**
Spring		
HHP 3114	Physiology of Exercise	4
Controlled Elective Course		3
Controlled Elective Course		3
Course designated (N)		4
	Hours	**14**
Senior		
Fall		
HHP 4773	Principles of Exercise Testing and Prescription	3
HHP 4124	Principles of Strength and Conditioning	4
Controlled Elective Course		3
Controlled Elective Course		3
Course Designated (G)		3
	Hours	**16**
Spring		
NSCI 4133	Nutrition for Exercise and Sport	3
HHP 4960	Internship in AES: Sport and Coaching Science	5
Controlled Elective Course		3
HHP 4013	Motor Control and Learning	3
	Hours	**14**
	Total Hours	**120**

Applied Exercise Science: Strength and Conditioning, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.75
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
or MATH 1613	Trigonometry (Q)	
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum GPA 2.75 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
NSCI 2013	Principles of Human Nutrition (N)	3
BIOL 3204	Physiology	4
HHP 1703	Introduction to Exercise Science	3
HHP 2553	Basic Athletic Injury Management	3
HHP 2654	Applied Anatomy	4
Hours Subtotal		**19**
Major Requirements		
Minimum GPA of 2.75 with a minimum grade of "C" or "P" in each course		
HHP 3114	Physiology of Exercise	4
HHP 3133	Ergogenic Aids for Sports and Human Performance	3
HHP 3443	Psychosocial Aspects of Sport and Coaching	3
HHP 3663	Biomechanics	3
HHP 4013	Motor Control and Learning	3
HHP 4124	Principles of Strength and Conditioning	4
HHP 4480	Internship in Health and Human Performance	5
NSCI 4133	Nutrition for Exercise and Sport	3
Hours Subtotal		**28**
Electives		
Select 32 hours from the following list:		32
HHP 2802	Medical Terminology for the Health Professions	
BIOL 3933	Research Methods	
HHP 3010	Health and Human Performance Workshop	
HHP 3123	Principles of Personal Training	
HHP 3333	Ethics in Sports Administration and Coaching	
HHP 3553	Theory and Practice of Coaching	
HHP 4010	Directed Study	
HHP 4480	Internship in Health and Human Performance	
HHP 4773	Principles of Exercise Testing and Prescription	
HLTH 3643	Health Behavior Theory	
HLTH 4783	Public Health and Aging	
MGMT 3943	Sports Management	
NSCI 3223	Nutrition Across the Life Span	
PSYC 3013	Psychology of Motivation	
Hours Subtotal		**32**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division course work. Documentation of current first aid/CPR certification prior to completion of HHP 4480 Internship in Health and Human Performance.
- Required for graduation:
  a. 2.75 Overall GPA;
  b. 2.75 Overall GPA for enrollment in HHP 4480 Internship in Health and Human Performance;
  c. 2.75 GPA in College/Departmental Requirements; and
  d. 2.75 GPA in Major Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1513 or MATH 1613	College Algebra (Q) or Trigonometry (Q)	3
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
HHP 1703	Introduction to Exercise Science	3
UNIV 1111	First Year Seminar	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
NSCI 2013	Principles of Human Nutrition (N)	3
POLS 1113	American Government	3
STAT 2013 or STAT 2023 or STAT 2053	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q) or Elementary Statistics for the Social Sciences (Q)	3
Course designated (H)		3
	Hours	**15**
Sophomore		
Fall		
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
CHEM 1215 or CHEM 1314	Chemical Principles I (LN) or Chemistry I (LN)	4
Course designated (H)		3
Controlled Elective Course [1]		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
PSYC 1113	Introductory Psychology (S)	3
Controlled Elective Course [1]		3
Course designated (D)		3
HHP 2654	Applied Anatomy	4
Controlled Elective Course [1]		3
	Hours	**16**
Junior		
Fall		
HHP 2553	Basic Athletic Injury Management	3
HHP 3443	Psychosocial Aspects of Sport and Coaching	3
HHP 3663	Biomechanics	3
Controlled Elective Course [1]		3
Controlled Elective Course [1]		3
	Hours	**15**
Spring		
HHP 3114	Physiology of Exercise	4
BIOL 3204	Physiology	4
Controlled Elective Course [1]		3
HHP 3133	Ergogenic Aids for Sports and Human Performance	3
Controlled Elective Course [1]		3
	Hours	**17**
Senior		
Fall		
HHP 4124	Principles of Strength and Conditioning	4
HHP 4013	Motor Control and Learning	3
Course designated (G)		3
Controlled Elective Course [1]		3
Controlled Elective Course [1]		3
	Hours	**16**
Spring		
NSCI 4133	Nutrition for Exercise and Sport	3
HHP 4980	Internship in AES: Strength and Conditioning	5
Controlled Elective Course [1]		3
Controlled Elective Course [1]		2
	Hours	**13**
	Total Hours	**120**

Recreation and Athletic Management: Recreation Management, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Math or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		6
Exploring Society & Human Behavior (S)		
Course designated (S)		6
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 3 hours of ECON		3
Select one of the following:		4
GEOG 1114	Introduction to Physical Geography (LN)	
GEOG 1113	Introduction to Cultural Geography (GS) (plus 1 hour elective)	
Select one of the following courses:		3
HDFS 2113	Lifespan Human Development (S)	
HDFS 2123	Developmental Disabilities: Issues Across the Lifespan (D)	
HDFS 2213	Human Sexuality and the Family (DS)	
HDFS 2223	Foundations in Early Childhood Education	
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	
HDFS 2243	Infant-Toddler Programming	
Select one of the following courses:		3
HLTH 2603	Total Wellness (S)	
HHP 1823	Pedagogy of Non-Traditional Activities, Rhythm, and Movement	
HHP 1843	Pedagogy of Individual Activities	
Select 3 hours of MKTG		3
Select 3 hours of MATH or STAT		3
Hours Subtotal		**21**
Major Requirements		
Minimum GPA of 2.50 with a minimum grade of "C" or "P" in each course		
Program Core (19 hours)		
RM 2413	Introduction to Recreation Management	3
RT 2443	Contemporary Issues in Diversity (DS)	3
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
RM 2473	Foundation of Recreation Management Leadership	3
RM 4433	Evaluation in Recreation Management Services	3
RM 4481	Senior Seminar in Recreation Management	1
RM 4493	Administration of Recreation Services	3
RM Option Requirements (27 hours)		
RM 3463	Recreation Program and Event Planning	3
RM 3483	Jr. Internship in Recreation Management	3
RM 4463	Areas and Facilities in Recreation Management	3
Select one of the following courses:		3
RM 4563	Entrepreneurial Recreation Management (or)	
3 hours of EEE		
RM 4689	Senior Internship in Recreation and Athletic Management	9
RM 4683	Administrative Documentation in Internship for Recreation Management (taken with RM 4680 in spring or summer only))	3
Select one of the following courses:		
RM 4943	Grant Writing and Nonprofit Management	3
or RM 4713	Campus Recreation, Intramurals, and Sport	

Hours Subtotal	**46**
Electives	
Select 13 hours RM, RT, or RMRT and/or hours from the approved discipline areas with at least 9 hours upper division courses	13
Approved discipline areas include:	
AGED, BIOL, ECON, EPSY, GEOG, GEOL, HDFS, HLTH, HTM, MGMT, MKTG, NREM, PBIO, POLS, HESA, SOC	
Hours Subtotal	**13**
Total Hours	**120**

Other Requirements

- 40 hours of upper-division course work.
- Required for graduation:
  a. 2.00 Overall GPA;
  b. 2.50 GPA in major for enrollment in RM 4689 Senior Internship in Recreation and Athletic Management; and
  c. 2.50 GPA in College/Departmental Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
GEOG 1114 or GEOG 1113	Introduction to Physical Geography (LN) (If GEOG 1113, need 1 additional hour of elective) or Introduction to Cultural Geography (GS)	4
UNIV 1111	First Year Seminar	1
RM 2413	Introduction to Recreation Management	3
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (S), (DS) or (GS)		3
MATH or STAT course (Q)		3
RM 2473	Foundation of Recreation Management Leadership	3
	Hours	**15**
Sophomore		
Fall		
MATH or STAT course (Q)		3
3 Hours Course Designated (S, DS, or GS)		3
EDHS 3111	Preparing for Your Future Career	1
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
3 Hours ECON course		3
RT 2443	Contemporary Issues in Diversity (DS)	3
	Hours	**16**
Spring		
Course designated (Q), (H), (N) or (S)		3
RM 3463	Recreation Program and Event Planning	3
HLTH 2603 or HHP 1823 or HHP 1843	Total Wellness (S) or Pedagogy of Non-Traditional Activities, Rhythm, and Movement or Pedagogy of Individual Activities	3
Course designated (H), (DH) or (HG)		3
Natural Science course (N,L)		4
	Hours	**16**
Junior		
Fall		
HDFS 2113 or HDFS 2123 or HDFS 2213 or HDFS 2223 or HDFS 2233 or HDFS 2243	Lifespan Human Development (S) or Developmental Disabilities: Issues Across the Lifespan (D) or Human Sexuality and the Family (DS) or Foundations in Early Childhood Education or Development of Creative Expression, Play and Motor Skills in Early Childhood or Infant-Toddler Programming	3
Course designated (H), (DH) or (HG)		3
RM 4433	Evaluation in Recreation Management Services	3
MKTG course		3
3 Hours Natual Science course (N)		3
	Hours	**15**
Spring		
RM 4493	Administration of Recreation Services	3
RM 4943 or RM 4713	Grant Writing and Nonprofit Management or Campus Recreation, Intramurals, and Sport	3
RM upper-division elective		3
RM elective		3
Select 3 hours:		3
RM 4563	Entrepreneurial Recreation Management	
or EEE course		
	Hours	**15**
Summer		
RM 3483	Jr. Internship in Recreation Management	3
	Hours	**3**
Senior		
Fall		
Course designated (G), (H), (N) or (S)		4
RM 4463	Areas and Facilities in Recreation Management	3
RM 4481	Senior Seminar in Recreation Management	1
RM upper-division elective		4

3 Hour RM Elective		3
	Hours	**15**
Spring		
RM 4683	Administrative Documentation in Internship for Recreation Management	3
RM 4689	Senior Internship in Recreation and Athletic Management	9
	Hours	**12**
	Total Hours	**121**

Recreation Management (RM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Tim Passmore, School of Kinesiology, Applied Health and Recreation, 181 Colvin Center, 405-744-1811

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 21

Code	Title	Hours
Minor Requirements		
RM 2413	Introduction to Recreation Management	3
RM 2473	Foundation of Recreation Management Leadership	3
RM 3463	Recreation Program and Event Planning	3
RM 3483	Jr. Internship in Recreation Management	3
RM 4433	Evaluation in Recreation Management Services	3
Select 6 hours of RM electives (one course must be 4000-level, no credit for Leisure/Activity courses) in consultation with RM faculty or academic advisor		6
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Recreational Therapy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		8
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	
or CHEM 1215	Chemical Principles I (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		6
Recommended:		
PSYC 1113	Introductory Psychology (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 1111	First Year Seminar Supplement	1
or EDHS 3111	Preparing for Your Future Career	
HDFS 2113	Lifespan Human Development (S)	3
HHP 2654	Applied Anatomy	4
RT 3212	Psychomotor Development	2
PSYC 3443	Psychopathology (S)	3
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
BIOL 3204	Physiology	4
Hours Subtotal		**21**
Major Requirements		
Minimum GPA of 2.50 with a minimum grade of "C" or "P" in each course		
RT 2433	Introduction to Recreational Therapy	3
RT 2443	Contemporary Issues in Diversity (DS)	3
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
RT 3413	Recreational Therapy and Mental Illness/ Intellectual Disabilities	3
RT 3423	Recreational Therapy in Geriatric Practices	3
RT 3433	Recreational Therapy and Physical Disabilities	3
RT 3441	Warm Water Therapy Lab	1
RT 3443	Assessment in Recreational Therapy	3
RT 3473	Medical Terminology and Procedures for Recreational Therapy (Must be taken with RT 3483)	3
RT 3483	Junior Internship in Recreation Therapy (Must be taken with RT 3473)	3
RT 3843	Recreational Therapy Facilitation Techniques & Interventions	3
RT 4483	Administrative Documentation in Internship for Recreational Therapy (Must be taken with RT 4489)	3
RT 4489	Senior Internship in Recreational Therapy (Must be taken with RT 4483)	9
RT 4581	Senior Seminar in Recreational Therapy	1
RT 4833	Recreational Therapy and Pediatrics	3
RT 4843	Recreational Therapy & Healthcare Administration	3
RT 4933	Advanced Methods In Recreational Therapy	3
Select 6 hours of electives from the following:		6
Upper-division RT courses		
RT 4443	Recreational Therapy and Child Development	
RT 3110	Workshop in Recreational Therapy	
EPSY 3113	Psychological Foundations of Childhood	

EPSY 3413	Child and Adolescent Development	
EPSY 4063	Exploration of the Creative Experience	
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	
HDFS 3203	Children's Play: A World Perspective (G)	
HDFS 3413	Infant and Child Development	
HDFS 3423	Adolescent Development in Family Contexts (S)	
Hours Subtotal		**59**
Total Hours		**121**

Additional Recreational Therapy Degree Requirements

- 40 hours of upper-division coursework.
- Required for graduation:
  - 2.50 Overall GPA;
  - 2.50 GPA in major for enrollment in RT 4489 Senior Internship in Recreational Therapy;
  - and 2.50 GPA in College/Departmental Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
RT 2433	Introduction to Recreational Therapy	3
BIOL 1113 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	3
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
UNIV 1111	First Year Seminar	1
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
RT 3423 or RT 3433	Recreational Therapy in Geriatric Practices or Recreational Therapy and Physical Disabilities	3
PSYC 1113	Introductory Psychology (S)	3
MATH 1513	College Algebra (Q)	3
RT 3110	Workshop in Recreational Therapy	2
RT 3441	Warm Water Therapy Lab	1
	Hours	**15**
Sophomore		
Fall		
HDFS 2113	Lifespan Human Development (S)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
CHEM 1314 or CHEM 1215	Chemistry I (LN) or Chemical Principles I (LN)	4
RT 2443	Contemporary Issues in Diversity (DS)	3
3 Hours General Education (Q, H, N, or S)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**17**
Spring		
RT 3423 or RT 3433	Recreational Therapy in Geriatric Practices or Recreational Therapy and Physical Disabilities	3
POLS 1113	American Government	3
RT 3843	Recreational Therapy Facilitation Techniques & Interventions	3
3 Hours General Education (H, DH, HG)		3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
	Hours	**15**
Junior		
Fall		
RT 3413	Recreational Therapy and Mental Illness/Intellectual Disabilities	3
BIOL 3204	Physiology	4
RT 4833	Recreational Therapy and Pediatrics	3
3 Hours General Education (Q, H, N, or S)		3
RT Elective (Choose from: EPSY 3113, 3413, 4063, HDFS 2233, 3203, 3413, or 3423)		3
	Hours	**16**
Spring		
RT 4933	Advanced Methods In Recreational Therapy	3
RT 4843	Recreational Therapy & Healthcare Administration	3
HHP 2654	Applied Anatomy	4
PSYC 3443	Psychopathology (S)	3
	Hours	**13**
Summer		
RT 3473	Medical Terminology and Procedures for Recreational Therapy	3
RT 3483	Junior Internship in Recreation Therapy	3
	Hours	**6**
Senior		
Fall		
RT 3443	Assessment in Recreational Therapy	3
RT 4581	Senior Seminar in Recreational Therapy	1
3 Hours Course designated (S,DS, or GS)		3
3 Hours Course Designated (H, DH, or HG)		3
RT 4443	Recreational Therapy and Child Development	3
	Hours	**13**
Spring		
RT 4483	Administrative Documentation in Internship for Recreational Therapy	3
RT 4489	Senior Internship in Recreational Therapy	9
	Hours	**12**
	Total Hours	**121**

Recreational Therapy: Pre-Professional Occupational Therapy, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		8
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN)	
or CHEM 1215	Chemical Principles I (LN)	
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
SOC 1113	Introductory Sociology (S)	3
Diversity (D)		
RT 2443	Contemporary Issues in Diversity (DS)	3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 1111	First Year Seminar Supplement	1
or EDHS 3111	Preparing for Your Future Career	
HDFS 2113	Lifespan Human Development (S)	3
HHP 2654	Applied Anatomy	4
RT 3212	Psychomotor Development	2
PSYC 3443	Psychopathology (S)	3
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
BIOL 3204	Physiology	4
PHYS 1114	College Physics I (LN)	4
Hours Subtotal		**25**
Major Requirements		
Minimum GPA of 2.50 with a minimum grade of "C" or "P" in each course		
RT 2433	Introduction to Recreational Therapy	3
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
RT 3413	Recreational Therapy and Mental Illness/ Intellectual Disabilities	3
RT 3423	Recreational Therapy in Geriatric Practices	3
RT 3433	Recreational Therapy and Physical Disabilities	3
RT 3441	Warm Water Therapy Lab	1
RT 3443	Assessment in Recreational Therapy	3
RT 3473	Medical Terminology and Procedures for Recreational Therapy (Must be taken with RT 3483)	3
RT 3483	Junior Internship in Recreation Therapy (Must be taken with RT 3473)	3
RT 3843	Recreational Therapy Facilitation Techniques & Interventions	3
RT 4489	Senior Internship in Recreational Therapy (Must be taken with RT 4483)	9
RT 4483	Administrative Documentation in Internship for Recreational Therapy (Must be taken with RT 4489)	3
RT 4581	Senior Seminar in Recreational Therapy	1
RT 4833	Recreational Therapy and Pediatrics	3
RT 4843	Recreational Therapy & Healthcare Administration	3
RT 4933	Advanced Methods In Recreational Therapy	3
Select 4 hours of electives from the following:		4
Upper-division RT course and/or:		
RT 4443	Recreational Therapy and Child Development	

EPSY 3113	Psychological Foundations of Childhood	
EPSY 3413	Child and Adolescent Development	
EPSY 4063	Exploration of the Creative Experience	
HDFS 2233	Development of Creative Expression, Play and Motor Skills in Early Childhood	
HDFS 3203	Children's Play: A World Perspective (G)	
HDFS 3413	Infant and Child Development	
HDFS 3423	Adolescent Development in Family Contexts (S)	
Hours Subtotal		**54**
Total Hours		**120**

Additional Recreational Therapy Degree Requirements

- 40 hours of upper-division coursework.
- Required for graduation:
  - 2.50 Overall GPA;
  - 2.50 GPA in major for enrollment in RT 4489 Senior Internship in Recreational Therapy;
  - and 2.50 GPA in College/Departmental Requirements.
- The student must earn minimum grades of "C" or "P" in the College/Departmental Requirements and Major Requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
RT 2433	Introduction to Recreational Therapy	3
BIOL 1113 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	3
RM 2463	Recreation Management and Recreational Therapy Laboratory	3
UNIV 1111	First Year Seminar	1
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**14**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
RT 3423 or RT 3433	Recreational Therapy in Geriatric Practices or Recreational Therapy and Physical Disabilities	3
PSYC 1113	Introductory Psychology (S)	3
MATH 1513	College Algebra (Q)	3
RT 3110	Workshop in Recreational Therapy	2
RT 3441	Warm Water Therapy Lab	1
	Hours	**15**
Sophomore		
Fall		
HDFS 2113	Lifespan Human Development (S)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
CHEM 1314 or CHEM 1215	Chemistry I (LN) or Chemical Principles I (LN)	4
RT 2443	Contemporary Issues in Diversity (DS)	3
2 Hours General Education (Q, H, N, or S)		2
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
RT 3423 or RT 3433	Recreational Therapy in Geriatric Practices or Recreational Therapy and Physical Disabilities	3
POLS 1113	American Government	3
RT 3843	Recreational Therapy Facilitation Techniques & Interventions	3
3 Hours General Education (H, DH, HG)		3
STAT 2013 or STAT 2023	Elementary Statistics (Q) or Elementary Statistics for Business and Economics (Q)	3
	Hours	**15**
Junior		
Fall		
RT 3413	Recreational Therapy and Mental Illness/Intellectual Disabilities	3
BIOL 3204	Physiology	4
RT 4833	Recreational Therapy and Pediatrics	3
RT Elective (Choose from: EPSY 3113, 3413, 4063, HDFS 2233, 3203, 3413, or 3423)		3
RT 3443	Assessment in Recreational Therapy	3
	Hours	**16**
Spring		
RT 4933	Advanced Methods In Recreational Therapy	3
RT 4843	Recreational Therapy & Healthcare Administration	3
HHP 2654	Applied Anatomy	4
PSYC 3443	Psychopathology (S)	3
	Hours	**13**
Summer		
RT 3473	Medical Terminology and Procedures for Recreational Therapy	3
RT 3483	Junior Internship in Recreation Therapy	3
	Hours	**6**
Senior		
Fall		
RT 4581	Senior Seminar in Recreational Therapy	1
3 Hours Course Designated (H, DH, or HG)		3
SOC 1113	Introductory Sociology (S)	3
RT 4443	Recreational Therapy and Child Development	3

PHYS 1114	College Physics I (LN)	4
	Hours	**14**
Spring		
RT 4483	Administrative Documentation in Internship for Recreational Therapy	3
RT 4489	Senior Internship in Recreational Therapy	9
	Hours	**12**
	Total Hours	**121**

Sports and Coaching Science (SPCS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Education Student Academic Services, 101 Nancy Randolph Davis, 405-744-5053

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 19

Code	Title	Hours
Minor Requirements		
HHP 1703	Introduction to Exercise Science	3
HHP 2553	Basic Athletic Injury Management	3
HHP 3133	Ergogenic Aids for Sports and Human Performance	3
HHP 3553	Theory and Practice of Coaching	3
HHP 3883	Coaching Internship	3
HHP 4124	Principles of Strength and Conditioning	4
Total Hours		**19**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

School of Teaching, Learning and Educational Sciences

Stephanie Hathcock, PhD—Interim School Head

The School of Teaching, Learning and Educational Sciences develops outstanding education professionals and school psychologists who have the confidence and demonstrated competence to be leaders, advocates, and agents of change in regional, national and world communities. We employ and model authentic, engaging methods and innovative, collaborative practices to develop scholars, especially teachers, teacher educators and school psychologists who are transformative leaders and reflective practitioners adept at using creative and effective methods to foster productive and just communities. Programs in the School of Teaching, Learning and Educational Sciences (STLES) include curriculum studies, elementary education, secondary education, literacy education, science/mathematics education, special education and school psychology. Consistent with the University's Professional Education unit conceptual framework, all programs leading to teacher certification at both initial and advanced levels incorporate the L.E.A.D.S. framework based on leadership, ethics and professionalism, academic and professional roles, diversity and service orientation/community outreach. Graduate program goals in STLES focus on the concepts of agency, pedagogy, diversity and research.

Course Prefixes

Most courses in STLES programs carry the CIED (Curriculum and Instruction) prefix. Other course prefixes include LLCE (Language, Literacy & Culture), SPED (Special Education), SMED (Science/Mathematics Education), and SPSY (School Psychology).

Undergraduate Programs

- Jill Metzger, MS—Teaching Instructor and Elementary Education Area Coordinator
- Jamie Lake, Ed.D—Teaching Assistant Professor and Secondary Education Area Coordinator

The School offers undergraduate degrees in elementary, secondary, and K-12 education. The Bachelor of Science in Elementary Education degree qualifies the student for an Oklahoma elementary teaching certificate (grades 1-8). The program is intended to provide students with:

- a breadth of knowledge reflecting the broad traditions of general education, and
- a depth of knowledge in the area of specialization.

The degree includes four field experiences, culminating in a full-semester clinical internship, through which teacher candidates work in a diverse school setting, while demonstrating and strengthening their pedagogical knowledge. This degree is offered face-to-face in Stillwater and also through the Elementary Education Online program worldwide. The culminating clinical internship placement opportunities include placement in accredited schools in a radius including and outside of Stillwater, with out-of-state placements for online program students and international placements also available. All students complete a Professional Portfolio. Oklahoma certification also mandates the Praxis Performance Assessment for Teachers (PPAT) (https://www.ets.org/ppat.html) and the Certification Examinations for Oklahoma Educators.

The Bachelor of Science in Secondary or K-12 Education degree is designed to prepare teacher candidates who are life-long learners, emerging professionals and subject matter specialists with strong liberal arts backgrounds. Each secondary/K-12 degree and certification program includes general education courses, extensive specialization coursework in the discipline area, and professional education courses accompanied by school-based field experiences. Degree options leading to certification for teaching grades 5-12 are English and social studies. The foreign language option leads to certification in grades K-12. Secondary science and mathematics education students pursue degrees from the College of Arts and Sciences through the OSUTeach program. Students complete a Professional Portfolio. Oklahoma certification also mandates the Praxis Performance Assessment for Teachers (PPAT) (https://www.ets.org/ppat.html) and the Certification Examinations for Oklahoma Educators.

Programs/Areas of Emphasis Degrees

Degrees offered through STLES programs include Bachelor of Science (BS), Master of Science (MS), Education Specialist (EdS), and Doctor of Philosophy (PhD).

Elementary Education

- Elementary Education—BS, BS Online Option

Secondary Education

- Secondary Education
  - English—BS, BS Online Option
  - Mathematics—BS
  - Science—BS
  - Social Studies—BS

Teaching, Learning, and Leadership

- College Teaching—GRCT
- Effective Teaching in Secondary Schools—GRCT
- Effective Teaching in the Elementary School—GRCT
- Elementary Mathematics Specialist—GRCT
- K-12 STEM—GRCT
- Special Education - GRCT
- Special Education - UCRT
- Curriculum and Leadership Studies—MS
- K12 Education—MS
- Math/Science Education—MS
- Reading/Literacy—MS
- Special Education—MS

EdS in Education

- Education Specialist in Language, Literacy and Culture

PhD in Education

- Curriculum Studies—MS, PhD
  - College Curriculum and Teaching—PhD
  - Curriculum and Leadership—PhD
  - International and Peace Leadership—PhD
- Language, Literacy, and Culture—PhD
- Mathematics Education—PhD
- Science Education—PhD
- Special Education—PhD

School Psychology

- School Psychology—EdS, PhD

Courses

CIED 1230 Reading and Study Skills for College Students
Description: Instruction and laboratory experience for the improvement of reading rate, vocabulary, comprehension, and study skills. Graded on pass-fail basis. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 2453 Introduction to Teaching and Learning
Prerequisites: Declaration of intention to pursue a program in Professional Education.
Description: Overview of teaching and learning in the 21st century so that students understand the foundations of education and basic pedagogy. This course includes the initial pre-professional clinical experience in schools, first through eighth grades. Required for full admission to Professional Education. Previously offered as CIED 2450.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 3005 Foundations of Literacy
Prerequisites: ENGL 1113, ENGL 1213, ENGL 2413.
Description: Survey of evaluation, selection and utilization of literature of childhood; introduces cognitive and linguistics foundations of literacy; language conventions needed to compose and comprehend oral and written texts. Work in school setting.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3133 Children's Literature Across the Curriculum
Description: Critical, analytical and instructional skills for teaching with culturally diverse literature for elementary and middle school learners. Integration of literature across the curriculum to develop critical thinking, social literacy, and inquiry skills. Previously offered as CIED 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3253 Teaching Language Arts in the Elementary and Middle School
Prerequisites: ENGL 1113 and ENGL 1213 and ENGL 2413.
Description: Learning theory, content, and methods related to teaching spoken, written, and visual forms of communication. Focus is on listening, speaking, writing and on teaching knowledge, skills and strategies inherent in those processes. Stresses integration of central literacy components (reading, writing, speaking, listening to, and viewing a wide range of texts in a variety of forms) and across the curriculum, teaching diverse learners and perspectives, inquiry, and critical literacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3293 Teaching Reading in the Elementary and Middle School
Prerequisites: ENGL 1113 and ENGL 1213 and ENGL 2413.
Description: Learning theory, content and methods specifically related to teaching children to read a wide range of texts for a wide range of purposes. Understandings of central reading components such as print awareness, phonological/phonemic awareness, phonics, fluency, vocabulary, comprehension, and critical literacy. Best practices for teaching reading effectively for diverse learners with varied needs and interests. Includes program phonics exam.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 3313 Field Experience in the Secondary Schools
Prerequisites: Consent of instructor, 2.50 GPA, and passing scores on the Oklahoma General Education Test.
Description: Seminars, directed observation and participation in a particular subject area of the secondary/K-12 school. Experience in meeting the mental, social, physical, and cultural needs among children. Previously offered as CIED 3712.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 3622 Middle Level Education
Prerequisites: CIED 2453.
Description: Overview of the nature of young adolescents as well as an examination of the curriculum, instruction, and organization of middle grade schools. Also includes a field-based experience in a middle school. Previously offered as CIED 3623.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 3753 Teaching Social Studies through Inquiry
Prerequisites: Completion of CIED 3313 or consent of instructor.
Description: This course is designed to develop pre-service teachers' skills to teach social studies through an inquiry approach. Guided readings, discussions, group activities, and project based learning will focus on structuring an inquiry-based secondary classroom through the use of primary sources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4000 Field Studies in Education
Description: Independent study and/or field experiences, such as spending a semester in an experimental program working with handicapped children in schools, in-depth studies in research projects, internships with school personnel. Graded on a pass-fail basis. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4005 Literacy Assessment and Instruction
Prerequisites: CIED 3005 or HDFS 3213.
Description: Provides a comprehensive survey of teaching strategies, formal and informal assessment, curriculum materials, theory, and research pertaining to reading, writing, spelling and oral language development at the primary and elementary school levels. Practical experiences required.
Credit hours: 5
Contact hours: Lecture: 4 Lab: 2 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4012 Integration of Literacy
Prerequisites: CIED 4005; full admission to Professional Education.
Description: Integration of reading, writing, and oral language; integration of literacy instruction into the content areas in elementary school curriculum.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4041 Interdisciplinary Curriculum Design and Development
Prerequisites: Full admission to Professional Education and concurrent enrollment in 3430, 4012, 4153, 4323, 4353, and 4362.
Description: Planning and development of interdisciplinary teaching units for the elementary school classroom. Pedagogical approaches and materials for teaching integrated themes, as well as research on effective integrated teaching practices.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 4073 Elementary School Curriculum Design and Development
Prerequisites: Full admission to Professional Education.
Description: Students will understand and learn to apply the foundations of elementary curriculum, the processes of designing curriculum for elementary classrooms, the analysis of instructional practices, and the data driven decision making to improve student learning. May not be used for degree credit with CIED 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4093 Teaching Grammar in the Secondary Schools
Prerequisites: ENGL 4013 (or concurrent enrollment) or instructor permission is required.
Description: Inductive teaching of grammar and usage for writing and oral communication. Lessons include learning to teach literary devices, poetic nomenclature, etymology of idiomatic expressions, and such linguistic elements as homonyms, synonyms, and antonyms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4103 Introduction to English Learners for Early Childhood and Elementary Teachers
Description: This course facilitates prospective early childhood and elementary education teachers' learning about how to educate English Learners in their classes, schools, and communities. Taking a comprehensive, learner-centered approach to research, theory, policy, and practice, topics covered include current trends, pedagogical strategies, and instructional theories related to English Learners in early childhood and elementary schools. May not be used for degree credit with CIED 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4133 Introduction to K-12 English Language Learners
Description: This course facilitates prospective teachers' learning about how to educate English Language Learners in their classes, schools, and communities. Taking a comprehensive, learner-centered approach to research, theory, policy, and practice, topics covered include current trends, pedagogical strategies, and instructional theories related to English Language Learners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4194 Teaching Writing in the Secondary School
Prerequisites: ENGL 1113, ENGL 1213, ENGL 3203, all with grade of "B" or better; ENGL 4013 or concurrent or with instructor permission.
Description: Teaching secondary writing inductively in order to build on future students' reasoning skills ultimately leading to cogent, cohesive, audience-appropriate multimodal composition. Previously offered as CIED 4193.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4213 Introduction to Visual Arts in the Curriculum
Description: Provides an understanding of the theoretical basis for the use of art activities in developing sensory perception and aesthetic sensitivity as an integral part of the curriculum. Includes a wide range of opportunities for student involvement in experimentation and exploration with a variety of two- and three-dimensional art media. Emphasis on both creative expression and appreciation of the visual arts in the home, school and community as a vital aspect of instruction in the school, preschool level through grade eight. May not be used for degree credit with CIED 5350.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4233 Literacy Assessment and Instruction
Prerequisites: CIED 3293 and CIED 3253.
Description: Selection, administration, and interpretation of a variety of formal and informal literacy assessments. Use of assessment results to plan, evaluate, and revise effective instruction for diverse learners within an assessment/evaluation/instruction cycle. Tutoring practicum is required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4243 Creativity and Critical Thinking in the K12 Classroom
Description: Preparation of teachers as facilitating critical thinking and creativity opportunities for elementary and secondary students. Skills in cross-curricular content integration, the elements and processes of appreciation and creation of multiple forms of art (performing, visual, digital, media, et. al) and pedagogical approaches to critical thinking competencies. May not be used for degree credit with CIED 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4263 Teaching and Learning Foreign Languages in the Elementary Schools (Grades 1-8)
Description: Purpose, selection and organization of foreign language curriculum content, teaching and learning theories, and procedure and evaluation of outcome for diverse students. Teaching techniques and materials for grades 1-8. May not be used for degree credit with CIED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4313 Young Adult Literature
Prerequisites: Senior or Graduate level standing.
Description: Survey of print and non-print materials, including multicultural and multi-ethnic materials for young adults from middle school through high school. History, criticism, selection, and evaluation of young adult literature and exploration of its relation to the needs and interests of young people. May not be used for degree credit with CIED 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4323 Social Studies in the Elementary School Curriculum
Prerequisites: Full admission to Professional Education.
Description: Purposes, selection and organization of content, teaching and learning procedures, and evaluation of outcomes in elementary social studies. May not be used for degree credit with CIED 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4373 Classroom Environments and Experience
Description: Introduction to the design and management of the physical, social, intellectual aspects of the elementary classroom. Overview of the purposes, selection and organization of classroom management systems and teaching approaches. Directed observation and participation in classrooms. Previously offered as CIED 4362. May not be used for degree credit with CIED 5363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4450 Internship in Elementary Education
Prerequisites: Concurrent enrollment in CIED 4453 or CIED 4720 and CIED 4730, successfully pass the subject area test, and full admission to Professional Education.
Description: Advanced clinical experience as associate (student) teacher in schools, pre-kindergarten through grade eight. Graded on a pass-fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4453 Senior Seminar in Elementary Education
Prerequisites: Concurrent enrollment in CIED 4450 and full admission to Professional Education.
Description: Legal and ethical issues, forms of assessment, including standardized testing, working with colleagues and other professionals, integration of performing arts including music and drama, and completion of a professional portfolio. Taken concurrently with student teaching in the final semester of the elementary education program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4463 Senior Seminar: Learning and Teaching in Diverse School Cultures
Prerequisites: Senior classification; full admission to Professional Education and concurrent enrollment in CIED 4450.
Description: Designing elementary classroom environments and curriculum that meet the needs of diverse populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4473 Reading for the Secondary Teacher
Prerequisites: Consent of instructor, 2.50 GPA, and passing scores on the Oklahoma General Education Test.
Description: Materials and procedures in the teaching of reading in secondary schools for content area teachers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4713 Teaching and Learning in the Secondary School
Prerequisites: Full admission to Professional Education and consent of instructor.
Description: Purposes, selection and organization of curriculum content, teaching and learning theories and procedures, and evaluation of outcomes for diverse students. Teaching techniques and materials for art, English, foreign languages, science, and the social studies. This course MUST be taken the semester prior to student teaching/internship. May not be used for degree credit with CIED 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4720 Internship in the Secondary Classroom
Prerequisites: CIED 4713, CIED 4724 or CIED 4734 or CIED 4744, full admission to Professional Education and successfully passing the subject area test in the content area of Internship.
Description: Supervised observation and student teaching in fields in which the student intends to qualify for teaching certification. Development of awareness of and experience with mental, social, physical and cultural differences among adolescents. Graded on a pass-fail basis. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 4724 Classroom Management in the Multicultural PK-12/ Secondary School
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Course previously offered as CIED 4723. May not be used for degree credit with CIED 5724.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

CIED 4734 Planning and Management in the Multicultural Foreign Language K-12 Classroom
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4744 Planning and Management in the Multicultural Art K-12 Classroom
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Previously offered as CIED 4730.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 4813 Second Language Acquisition Research and Pedagogy
Description: The overall focus of this course is on introduction to theory, research, and practice in the fields of first and second language acquisition; understanding of language acquisition at various developmental levels, both within and outside of the classroom; and application of language acquisition theories to instructional practice. May not be used for degree credit with CIED 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 4823 Foreign Language Instruction, Curriculum, and Assessment: Grades PK-12
Prerequisites: CIED 4813.
Description: History of foreign language education and teaching; understanding the role of foreign language in PK-12 programs; application of national and state foreign language learning standards in instructional planning; application of approaches, methods, strategies, and techniques of foreign language teaching; utilization of assessment tools to obtain information about foreign language learners' learning; and selection, evaluation, development, and modification of foreign language curricula. May not be used for degree credit with CIED 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5000 Master's Report or Thesis
Prerequisites: Consent of adviser.
Description: Students studying for a master's degree enroll in this course for a total of 2 credit hours if they write a report or 6 hours if they write a thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5010 Practicum for Early Career Secondary Teachers
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Facilitated mentoring support for performing professional functions in classroom settings for early career teachers. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5033 Teaching Foreign Languages in the Schools K-12
Description: Curriculum, materials, methods and procedures related to foreign languages (grades K-12).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5043 Issues in Teaching
Description: Current issues and trends in teaching theory, practice and research with emphasis on teacher reflection.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5053 Curriculum Issues
Description: A study of curriculum that includes philosophy, history, decision-making, major concepts and terms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5073 Pedagogical Research
Description: Theory and application of pedagogical inquiry with emphasis on teacher as researcher, pedagogical question posing, and techniques of pedagogical inquiry, including narrative, autobiography, case writing, action research, and artifactual documentation of teacher performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5093 Curriculum Design
Description: The theorizing and practical development of course and curriculum design. Focus on learning sciences, social implications, and interpreting student goals through state and national standards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5123 Curriculum in the Secondary School
Description: Contemporary curricular issues, philosophies, and points of view in secondary school education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5143 Language Arts in the Curriculum
Description: Content and current issues in the language arts. Materials and methods for teaching the communication skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5153 Advanced Studies in Children's Literature
Description: Study of children's literature within the prevailing political, economic and social factors influencing cultural patterns and values. The tools of research in children's literature and the nature and direction of contemporary children's book publishing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5173 Kindergarten-Primary Curriculum
Description: Study of kindergarten-primary curriculum, including philosophy, history, current practice, and issues. For administrators, teachers and students in curriculum and early childhood education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5183 Media Literacy Across the Curriculum
Description: Examination of the history of media literacy. Major topics and issues in the field of media literacy and curriculum in media literacy across subject areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5203 Foundations of Literacy Education 1-8
Description: Major literacy theories, content, and pedagogy with a required 45-hour field experience. For graduate students seeking initial certification in elementary education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5213 Introduction to Teaching and Learning
Prerequisites: Admission to the MAT program.
Description: Overview of teaching and learning in the 21st Century. Requires field experience in PK-12 Classrooms.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 5303 Teaching and Learning Foreign Languages in the Elementary Schools (Grades 1-8)
Description: Purpose, selection and organization of foreign language curriculum content, teaching and learning theories, and procedure and evaluation of outcome for diverse students. Teaching techniques and materials for grades 1-8. May not be used for degree credit with CIED 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5310 Field Experience in the Elementary School
Description: Directed observation and participation in classrooms, First through grade eight. Concurrent seminar exploring multicultural education and integrated programs. Offered for variable credit, 1-2 credit hours, maximum of 3 credit hours. Corequisite(s): CIED 4362; full admission to Professional Education.
Credit hours: 1-2
Contact hours: Lab: 3-6 Contact: 3-6
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5313 Curriculum of the Elementary School
Description: Contemporary trends, philosophies and points of view in elementary school education. Previously offered as CIED 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5323 Teaching Social Studies in the Schools
Description: Curriculum, materials, methods, and procedures related to social studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5333 Effective Classroom Management for Secondary Schools
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines classroom management, classroom discipline, and education issues of immediate concern (culturally responsive pedagogy, social justice, anti-bias applications, and using diverse technologies in the secondary classroom) for novice teachers. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5343 Introduction to K-12 English Language Learners
Description: Pedagogical strategies and instructional theories related to English Language Learners and culturally diverse students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5350 The Visual Arts in the Curriculum
Description: Creative approaches to the use of two- and three-dimensional media as they relate to various aspects of education. Opportunities available for periodic group and individual evaluation in order to give direction and significance to future growth. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5353 Literature for Children, Adolescents and Adults
Description: Exploration of the elements and characteristics of quality literature for readers of all ages, addressing evaluation, selection, and utilization. Research component requiring learners to design and conduct relevant research into literature learning and engagement with selected populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5363 Effective Teaching Strategies for the 6-12 Classroom
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Includes a study of effective instructional practices and assessment in the 6-12 classroom. Topics will include but not be limited to: research-based models of instruction, teacher questioning, facilitating classroom discussions, lesson planning, assessment, differentiated instruction, culturally responsive pedagogy, and teaching culturally and linguistically diverse learners. Course is required as part of the graduate certificate program for Effective Teaching in the Secondary Schools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5373 Design and Management of the Elementary School Classroom
Description: Introduction to the design and management of the physical, social, and intellectual aspects of the elementary classroom. Overview of the purposes, selection and organization or applicable classroom management systems and teaching approaches. May not be used for degree credit with CIED 4362. Previously offered as CIED 5362.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5403 Teaching and Learning in the Secondary Schools: English Language Arts Methods
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in Secondary English Language Arts. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5413 Teaching and Learning in the Secondary Schools: Social Studies Methods
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in Secondary Social Studies Education. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5423 Literacy Instruction in Primary Grades
Description: Analysis of growth in literacy from the preschool level through early elementary years. Examination of literacy learning processes and instructional procedures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5433 Reading and Writing in the Content Areas
Description: Study of the development and use of reading and writing across the content areas.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5443 Teaching Reading with Literature
Description: Teaching reading comprehension strategies through the use of children's literature. Designed to prepare library media specialists and other literacy educators to explicitly teach comprehension strategies to PK-12 students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5450 Internship in Elementary Education
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Clinical internship for teacher candidates in schools. Concurrent seminar on educational policy, legal, and curriculum development issues. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5453 Infusing Aesthetics Across the Curriculum
Description: Teachers enliven curriculum by cultivating students' aesthetic sensibilities across all disciplines. Historically, the field of Aesthetics has been concerned with notions of beauty, ugliness, contemplation, criticism, and elegance among others. Within Curriculum Studies, developing aesthetic awareness also involves engaging all of the senses in the teaching and learning process, approaching curriculum as embodied and holistic, stimulating imagination, and fostering enthusiasm for learning. Historical development of the field of aesthetics and its impact.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5463 Practicum I: Literacy Assessment and Instruction
Prerequisites: CIED 5423 and CIED 5143 or consent of instructor.
Description: Development of knowledge of reading, writing, and language assessment and instruction for K-12 students. 11 hours of supervised field experience for authentic literacy assessment, evaluation, and tutoring, plus 10-15 hours of targeted lesson planning outside of class meetings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5473 Reading & Writing Difficulties
Description: Study of research and formal assessment tools related to reading and writing difficulties in children and adults.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5483 Literacy and Technology Across the Curriculum
Description: The characteristics of computer-facilitated learning relating to broad definitions of literacy. Use of a variety of computer and literacy tools across the curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5493 Multisensory Phonics Instruction
Description: This course provides in-depth content specifically focused on evidence-based instruction in phonemic awareness, systematic and explicit phonics, and spelling. The course supports teachers and reading specialists who work with students with dyslexia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5513 Young Adult Literature
Description: Survey of print and non-print materials, including multicultural and multi-ethnic materials for young adults from middle school through high school. History, criticism, selection, and evaluation of young adult literature and exploration of its relation to the needs and interests of young people. May not be used for degree credit with CIED 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5523 Practicum II: Advanced Literacy Interventions
Prerequisites: CIED 5463 or consent of instructor.
Description: Assessment, evaluation, and targeted instruction in reading and writing for K-12 students who experience difficulty learning literacy processes. Collaboration among teachers, literacy coaches, and resource personnel. Includes 11 hours of supervised practicum focused on small group intervention instruction. Previously offered as CIED 5520.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5553 Literacy Leadership and Coaching
Prerequisites: CIED 5463.
Description: Develops skills and knowledge for school literacy program design and leadership, and for coaching other teaching professionals in literacy teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5573 Using Assessment to Understand Early Readers in Reading Recovery
Description: Focus on the administration and interpretation of Marie Clay's An Observation Survey of Early Literacy Achievement and intervention procedures that will support the beginning reader for whom reading and writing does not come easily. Graduate students will teach four children while learning Reading Recovery procedures. In addition, graduate students will observe children and teachers interacting behind a one-way glass.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5583 Responsive [Reading Recovery] Teaching to Accelerate Early Reading Progress
Description: Focus on the refinement of the Reading Recovery procedures used with beginning readers for whom learning to read and write does not come easily. Attention will be directed to teacher decision-making while working with four children. All enrolled in the course will be involved in teaching and observing children behind a one-way glass.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5623 Multicultural and Diversity Issues in Curriculum
Description: Understanding of the historical and contemporary perspectives toward cultural diversity. Development of an awareness of diverse culture and language communities; understanding of critical issues of race, class, gender, and ethnicity in education; perennial issues of multiculturalism in public education and in global society; a comprehensive overview of principles and current research on bilingual and multicultural education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5640 Special Topics in Literacy Education
Description: Topics vary to address special topics in literacy education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5643 Integrating Teaching at the Elementary Level
Description: Study and analysis of theories related to children's learning and implications for integrating teaching at the elementary level. Examination of teachers, own practices through reflection and research, study diverse populations, share teaching approaches and materials across the curriculum, and explore outreach to school, family and community.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5663 Integrating Teaching in the Secondary School
Description: In-service for middle to secondary teachers especially with professional development in their own school settings and in further graduate work. Examination of own practices through reflection and research, study of diverse adolescents, sharing of teaching approaches and materials across the curriculum, and exploration of outreach to school, family and community. Teacher leadership. Previously offered as CIED 5664.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5710 Internship in Secondary School
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Advanced clinical experience for teacher candidates (student teacher) in secondary schools. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5713 Teaching and Learning in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Purposes, selection and organization of curriculum content, teaching and learning theories and procedures, and evaluation of outcomes for diverse students. Teaching techniques and materials for art, English, foreign languages, science, and the social studies. This course MUST be taken the semester prior to student teaching/internship. May not be used for degree credit with CIED 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5720 Education Workshop
Description: For teachers, principals, superintendents and supervisors who need advanced curriculum and instruction course work related to K-12 subject areas and pedagogy, in the areas of instruction and administration. Students must register for the full number of credit hours for which the workshop is scheduled for a particular term. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5723 Gender and Curriculum
Description: An overview of gender issues in curriculum theory and practice. Understanding of historical and contemporary perspectives on gender in the context of schooling, pedagogy, and education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5724 Classroom Management in the Multicultural PK-12/Secondary School
Prerequisites: Full admission to Professional Education.
Description: An overview of classroom management and discipline approaches, parental involvement, school climate, and community relations. Includes field experiences in a diverse secondary classroom. Course previously offered as CIED 4723. May not be used for degree credit with CIED 4724.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

CIED 5730 Seminar in Education
Description: Seminar topics may differ depending upon the nature of current interests and topics in American education. May not be used for degree credit with SMED 4560. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5733 History of Reading
Prerequisites: Graduate standing with the Graduate College.
Description: This course provides an examination of the historical landscape of reading education paradigms, research, theory development, instruction, and policy in the U.S. Key research pioneers in reading/literacy education and their work, from a variety of "camps" (e.g. psychological or information processing, phonics, behaviorist, constructivist, reading and writing process, socio-cultural, etc.), will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5810 Internship Art and Foreign Language in PK-12 School
Prerequisites: Full admission to professional education; successfully pass the subject area OSAT; successful completion of all other course work.
Description: Advanced clinical experience for art or foreign language teacher candidates (student teacher) in PK-12 schools. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Lab: 6-12 Contact: 6-12
Levels: Graduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

CIED 5813 Educational Advocacy and Leadership
Description: Preparation of teachers as advocates and leaders in educational policy and practice at various levels. Skills in action research, policy analysis, and coalition building leading to advocacy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5823 Mindfulness, Curriculum, and Teaching
Description: The concept of mindfulness and its meanings for education. Theory and practice of mindful curriculum and teaching.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5843 First and Second Language Acquisition for Teachers
Description: The overall focus of this course is on introduction to theory, research, and practice in the fields of first and second language acquisition; understanding of language acquisition at various developmental levels, both within and outside of the classroom; and application of language acquisition theories to instructional practice. May not be used for degree credit with CIED 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5850 Directed Study
Prerequisites: Consent of instructor.
Description: Directed study for master's level students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 5853 Teaching Writing GR 1-8
Prerequisites: Admission into MAT program.
Description: Learning theory, content, and methods related to teaching spoken, written, and visual forms of communication. Focus on listening, speaking, writing and on teaching knowledge, skills and strategies inherent in those processes. Stresses integration of central literacy components and across the curriculum, teaching diverse learners and perspectives, inquiry, and critical literacy. Meets with CIED 3253. No degree credit for those with credit in CIED 3253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5863 Foreign Language Instruction, Curriculum and Assessment: Grades Pk-12
Description: History of foreign language education and teaching; understanding the role of foreign language in PK-12 programs; application of national and state foreign language learning standards in instructional planning; application of approaches, methods, strategies, and techniques of foreign language teaching; utilization of assessment tools to obtain information about foreign language learners' learning; and selection, evaluation, development, and modification of foreign language curricula. May not be used for degree credit with CIED 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5893 Reading Processes and Practices GR 1-8
Prerequisites: Graduate Standing and consent of Instructor.
Description: Learning theory, content, and methods specifically related to teaching children to read a wide range of texts. Understandings of central reading components such as print awareness, phonological/phonemic awareness, phonics, fluency, vocabulary, comprehension, and critical literacy. Best practices for teaching reading effectively for diverse learners with varied needs and interests. Includes program phonics exam. Meets with CIED 3293. No degree credit for those with credit in CIED 3293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5963 Teaching Grammar in the Secondary Schools
Prerequisites: Graduate status or instructor permission.
Description: Students learn to teach language inductively to build thinking, language and writing skills. Meets with CIED 4093. No degree credit for those with credit in CIED 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5973 Formative Literacy Assessment GR 1-8
Prerequisites: CIED 5893 and CIED 5853; or consent of instructor.
Description: Selection, administration, and interpretation of a variety of formal and informal literacy assessments. Use of assessment results to plan, evaluate, and revise effective instruction for diverse learners within an assessment/evaluation/instruction cycle. Tutoring practicum required. Meets with CIED 4233. No degree credit for those with credit in CIED 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 5993 Teaching Writing in the Secondary Schools
Prerequisites: Graduate status or instructor permission.
Description: Students learn to teach writing inductively by building the reasoning skills that lead to cogent, cohesive, audience-appropriate writing. Focus is on increasing the underlying skills necessary for writing description through argumentation. Meets with CIED 4193. No degree credit for those with credit in CIED 4193 or CIED 4194.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Offered for variable credit, 1-12 credit hours, maximum of 25 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6030 Contemporary Issues in Curriculum Studies
Description: Examination of selected contemporary topics in curriculum studies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6033 Analysis of Teaching
Description: Advanced study of multiple forms of analysis of teaching such as behavioral, phenomenological, and constructivist with emphasis on major research on teacher reflection and teacher narrative.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6040 Special Topics in College Curriculum and Teaching
Description: Topics vary to address issues related to college curriculum and teaching at various levels of higher education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6043 Curriculum Leadership
Description: A study of curriculum leadership and implications for schooling; focus on what it means to be a curriculum leader in times of major societal change and educational reform.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6053 Advanced Curriculum Studies
Description: In-depth examination of key concepts, topics, trends, and the interdisciplinary nature of curriculum studies. Critical analysis of contemporary curriculum discourses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6060 Advanced Special Topics in Literacy Education
Description: Topics vary to address special topics in literacy education at the doctoral level. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6063 Curriculum History
Description: Examines in-depth the history of various movements in U.S. curriculum thinking and the individuals who promoted them, with attention to the cultural and institutional contexts within which they worked. Emphasis is given to primary sources and the position of curriculum thinking within evolving educational thinking.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6070 Seminar in Arts and Humanities Education
Prerequisites: Graduate standing or instructor permission is required.
Description: Topics, research trends, theories, themes, and/or problems of interest and use in research, theorizing, publishing, and teaching. Particular focus on the skill of writing a theoretical lens and analyzing texts through that lens. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6073 Advanced Pedagogical Research
Description: Advanced theory and application of pedagogical research with emphasis on teacher as researcher, teacher research as professional development and education reform, techniques of pedagogical research and pedagogical question posing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6090 Readings in Arts and Humanities Education
Prerequisites: Graduate standing or instructor permission is required.
Description: In-depth readings specific to research and theorizing in arts and humanities education. Focusing on analysis, students examine primary texts and related secondary texts. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6133 Theory to Practice in Education
Description: A culminating seminar demonstrating the application of theory from several disciplines to the practical problems of education: curriculum development, organization, teaching strategies and evaluations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6143 School Reform
Description: Current issues in school reform with an emphasis on U.S. education; focus on what it means to engage in reform from dual points of view: curriculum leader and recipient of reform mandate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6153 Curriculum of Nonviolence
Description: The concept of nonviolence and its implications for curriculum and education. Curriculum dynamics of nonviolence. Curriculum theory and practice for, about, and through nonviolence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6163 Advanced Research Strategies in Curriculum
Prerequisites: SCFD 6113.
Description: Exploration of designs and methods within qualitative and quantitative research as applied to the field of curriculum. Articulation on how to ensure that both qualitative and quantitative studies meet their respective standards of rigor. Previously offered as CIED 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6173 International Peace Curriculum Development
Description: Conceptual foundations of peace education; theory and practice of developing school and college curriculum about and for international peace; case studies of international conflict resolution and peace curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6183 Advanced Media Literacy Across the Curriculum
Description: This course examines the interdisciplinary area of media literacy across the curriculum. Major themes such as issues of hegemony and strategies of media literacy in diverse classrooms will be explored. Students will analyze and evaluate various curriculum theories as applied to media literacy as well as research in the field. Finally, the future of media literacy and debates in the field will be considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6253 Designing and Conducting Mixed Methods Research
Prerequisites: REMS 5953 (or equivalent) and SCFD 5913 (or equivalent); admittance to a doctoral level program.
Description: Participants will examine the history, philosophical foundations, and methodological issues of mixed methods research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6283 Innovation & Change: Implementation Science
Description: Implementation science is the study of factors that influence the successful use of effective innovations in practice to improve outcomes. This course provides theoretical foundations, practical tools and authentic learning opportunities to build the knowledge and skills needed to implement innovations in real-world settings. The focus of the course is on building capacity. Students will learn implementation science theories, models, and frameworks as well as methods and tools to understand the determinants that facilitate or impede implementation at all levels of the implementation process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6383 Coaching Models to Encourage Change
Description: This course is designed to explore the role of coaching in promoting innovation and change within a school or other organizations. While "coaching" in schools is often seen as synonymous with "instructional coaching" this course will take a broader view. In this class we will examine the role of coaching, how to set up and manage a coaching culture, and how to evaluate the success of coaching programs. Additionally, this class will explore multiple coaching models, conversational frameworks, and discuss the practical skills needed to be an effective coach.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6433 Seminar in Literacy
Description: Research of issues in literacy education using knowledge gained through both research and classroom practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6483 Innovation & Change: Practitioner Action Inquiry
Prerequisites: SCFD 5913 recommended
Description: This course focuses on theory, design, and application of practitioner action inquiry. Emphasis is placed on practitioner as researcher, practitioner question-posing, and techniques of practitioner research utilized under the umbrella of practitioner action inquiry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6503 Doctoral Seminar
Description: In-depth investigation into the doctoral experience and the professoriate including research and writing for the dissertation and for publication; grant writing; professionalism and ethics; professional service; and teaching in higher education. Primarily for students in the PhD program in Curriculum Studies and Professional Education Studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6583 Innovation & Change: Data-Driven Decisions
Description: This course is designed to prepare practitioner scholars in education and human sciences to use quantitative data for innovation and change in their professional contexts. Emphasis is on the practical application of existing tools to gather (e.g., Qualtrics, Survey Monkey, academic measures), maintain (e.g., Excel), analyze and share data to make informed decisions for change in their work settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing to enhance students' understanding in areas where they wish additional knowledge. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6853 Improvement of Instruction in Reading
Description: Problems and issues related to reading instruction. The roles of various school personnel in changing curriculum and methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

CIED 6880 Internship in Education
Prerequisites: Consent of instructor.
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

CIED 6910 Practicum
Prerequisites: Consent of adviser.
Description: Helps the student carry out an acceptable research problem (practicum) in his/her local school situation. Credit given upon completion of the written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

EPSY 1003 Learning to Learn
Description: Learning effective strategies to succeed through online individualized assessment, positive attitude development, habit change, development and self-efficacy and self-regulation. Learning tools include goal setting, developing information skills, questioning, transformational learning, presentation and information use skills. Analyzing class materials, problem solving, creativity, teacher analysis, reflection, developing classroom motivation and appropriate classroom behavior to lead to classroom success.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 1013 Emotional Skills in Learning Success
Description: Striving for academic excellence through self awareness and growth in areas of social and emotional development. Interpersonal and intrapersonal skills, leadership skills, and self-management skills in the context of emotional intelligence theories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 2513 Foundations of Ethical Leadership
Prerequisites: 24 hours in good standing; admission into the UGLC or consent of instructor.
Description: Introduces students to a variety of theoretical views of ethics and leadership studies through the identification of contemporary ethical challenges and the development of foundational leadership skills to meet those challenges. Same course as HESA 2513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3063 Critical Thinking, Problem Solving, and Creative Processes
Description: Learning theory in developing strategies for promoting critical thinking, problem solving, and creativity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3110 Educational Psychology Seminar
Description: Problems, trends, contemporary topics, and pertinent issues in educational psychology. Concentrated study of selected areas not usually addressed in the undergraduate curriculum. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 3113 Psychological Foundations of Childhood
Description: The child from conception to puberty with focus on educational implications of development in cognitive, affective and psychomotor domains. Previously offered as ABSE 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3213 Psychology of Adolescence
Description: The adolescent from pubescence to adulthood with focus on educational implications of development in cognitive, affective and psychomotor domain. Course previously offered as ABSE 3213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3413 Child and Adolescent Development
Description: The person from conception through adolescence with focus on education implications of development in cognitive, affective, social, and physical domains. Course previously offered as ABSE 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 3533 Motivating Learners
Description: Current practices in learner motivation, school age through adult. Developing positive attitudes and building community in classrooms to stimulate motivation of all learners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4063 Exploration of the Creative Experience
Description: The creative experience in art (visual to performing), articulation (oratory to literature), thought (philosophy to psychology), business (practices to products), leisure (procreation to recreation). Western and Eastern viewpoints. Personal creative development fostered by modeling and by investigation of proven techniques. A wide range of creative endeavor with an experiential approach. Future-oriented applications. Course previously offered as ABSE 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4223 Psychological Foundations of Learning and Instruction
Description: Instructional psychology focusing on the study of teaching and learning theory as part of an instructional program to deal with individual, cultural, and environmental differences. Case studies and group discussion emphasizing motivation, planning, evaluation, classroom problems and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4503 Ethical Leadership for the Common Good
Prerequisites: EPSY 2513 or HESA 2513.
Description: Builds on foundational model of ethical theory and leadership studies through application of ethical theory and leadership skills to specific contexts and evaluation of their results. Same course as HESA 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4533 Competency Motivation
Description: Development of competence through the application of research strategies in achievement motivation. Examines intellectual ability, motives, goals, attributions, competence perceptions and values as they relate to developmental issues, demographics, contextual influences, culture, and self-regulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 4743 Learning, Motivation, and Social Justice (G)
Description: Foundational principles of learning, motivation, and global identity; critical analysis of contemporary cultures; and application of learning in addressing global issues of social justice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation
General Education and other Course Attributes: International Dimension

EPSY 5000 Master's Thesis
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the master's program in school and educational psychology. Credit given and grade assigned upon completion and acceptance of the thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5001 Colloquium: Educational Psychology
Description: Discussion of issues related to graduate study in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 5103 Human Development in Psychology
Description: Introduction to basic research and theories of cognitive, emotional and social development. Applications to educational and family settings. Course previously offered as ABSE 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5123 Academic Writing in the Learning Sciences
Description: Introduction to the structure and organization of academic writing appropriate for a Creative Component, project, thesis, or doctoral dissertation. Students will be expected to prepare a proposal for their special topic.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5320 Seminar in Educational Psychology
Description: In-depth exploration of contemporary topics in educational psychology. Offered for variable credit, 3-9 credit hours, maximum of 9 credit hours.
Credit hours: 3-9
Contact hours: Contact: 3-9 Other: 3-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5403 Issues in Adolescent Development
Description: Current issues in adolescent development in an educational context and culture, including self, family, peers, school and work relationships. Gender differences within culture, race and class examined. Current dilemmas explored using critical theory and action research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5463 Psychology of Learning
Description: Evaluation of, and application to, education, psychology, and other learning contexts of research-based, contemporary psychological theories of human learning. Course previously offered as ABSE 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5473 Psychology of Adult Learning
Description: Analysis of the psychological foundation of adult learning both in and out of learning programs across the lifespan. Differentiates among adults of all ages in terms of practice and performance in a variety of settings, including classroom, community, and work environments. Examines the intellectual, social, cultural, emotional, motivational, and performance components of the psychology of adult learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5553 Motivation in Educational Contexts
Description: An overview of empirically informed theories of motivation from a psychological perspective with emphasis on contextual influences in and outside the classroom. Topics include beliefs about ability and intelligence, goals, casual attributions, the value of academic tasks, and psychological needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5603 Developmental Issues in Instruction
Prerequisites: Three hours in developmental psychology, educational psychology or consent of instructor.
Description: Developmental issues in instruction at all levels from early childhood through adulthood. Specific impacts of developmental stages on the acquisition and retention of cognitive, affective and psychomotor development at various levels and contexts will be examined and applications to instruction will be provided.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5663 Creativity for Teachers
Description: Theoretical origins of creativity and their concomitant applications in the learning environment. Blocks to creative thinking, imagination, imagery, creativity testing, developing ideas and innovations, creative problem solving and teaching techniques and methods to maximize creative potential in all kinds and types of students. Course previously offered as ABSE 5663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5713 Transpersonal Human Development
Description: Human development in terms of individual consciousness, focusing on the implications of such extraordinary states of consciousness as those associated with hallucinogenic drugs and mystical religious experience. Integration of psychological and religious interpretations of development. Applications to practical problems in education and psychology. Course previously offered as ABSE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5720 Educational and School Psychology Workshop
Description: Workshop on various topics related to educational and school psychology. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 5773 Individual Intellectual Assessment
Description: Intensive study of various intelligence and achievement batteries, including the Wechsler scales and the Woodcock Johnson Tests of Achievement. Emphasis and practice in administration, scoring, interpretation. Further emphasis on issues related to report writing, non-discriminatory assessment, and the history of intelligence testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5963 Developing Resources to Support Educational Programs
Description: Development, management and evaluation of programs in intra- and extra-class settings. Program types include parent, volunteer, mentor, tutor, group sponsors in technology, business involvement, curricular enhancement and service learning. Developing community and business interest through public relations, financial development, grantsmanship or resource information sources. Developing Internet resources to support learners. Course previously offered as EPSY 5962.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 5983 Instructional Effectiveness in Higher Education
Prerequisites: Graduate standing or consent of instructor.
Description: For teaching assistants in all areas. The many aspects of teaching in higher education. Both theory, e.g., traditional instructional design and practical applications, e.g., how to create a lecture. Issues related to instructional design, development of classroom climate, understanding and assessment of students, classroom practices, materials creation for teaching and development of support systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6000 Doctoral Dissertation
Prerequisites: Consent of advisory committee chairperson.
Description: Report of research conducted by a student in the doctoral program in educational school psychology. Credit given and grade assigned upon completion and acceptance of the doctoral thesis. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6001 Colloquium II: The Job Search in Educational Psychology and Related Fields
Description: Discussion of issues related to the job search process in educational psychology and related fields.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Educ Found Leadersh & Aviation

EPSY 6043 Adult Development
Description: Theory and research concerning human development during the adult years. Practical applications for serving adult populations in education and education-related settings. Course previously offered as ABSE 6043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6110 Seminar in School Psychology
Description: An assessment of psychological techniques applied to problems encountered in the internship. Course previously offered as ABSE 6110. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6153 Advanced Research in Educational Psychology
Description: Research in educational psychology in areas such as recent trends in the field, exploration of research designs in Educational Psychology, writing and dissemination of research, ethics and collaboration, and development of skills to be competent consumers of the literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6163 Emotion and Cognition
Description: The relationship between emotion and cognition as it relates to knowing and learning. History, wisdom and the interdependence of affect and cognition, the effects of mood on memory, emotion in feminist epistemology, the role of feeling in the writing process, intuition, and narrative thought. Exploration of potential research. Course previously offered as ABSE 6163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6213 Advanced Educational Psychology
Prerequisites: Three hours in developmental psychology or consent of instructor.
Description: Learning and its effect upon coping and adjustment. How learning, environmental and personality factors interact to change human behavior. Course previously offered as EPSY 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6323 Psychological Consultation
Prerequisites: Admission to graduate program in the SAHEP or psychology program.
Description: Models and strategies for the delivery of special services in the schools and other agencies that focus on serving the mental health needs of children, adolescents and adults. The use of consultation as a problem solving alternative to the assessment/label approach. Same course as CPSY 6323, students can receive credit in only one of the courses. Course previously offered as ABSE 6323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6443 Theories and Problems in Educational Psychology
Prerequisites: Admission to the doctoral program in educational psychology or consent of instructor.
Description: Theoretical foundations and nature of the problems studied in educational psychology; current issues and historical overview.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6460 Internship in Educational Psychology
Prerequisites: Consent of instructor.
Description: May be repeated for credit when work assignment varies. Required of all teaching assistants in educational psychology during the first semester of each new teaching assignment. Includes cooperative planning and evaluation. Course previously offered as ABSE 6460. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6533 Human Motivation
Description: A theoretically-oriented approach to the concept of motivation; essential precursors to human behavior and applications to the solution of real and hypothetical problems. Course previously offered as ABSE 6533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

EPSY 6850 Directed Readings in Educational and School Psychology
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing in educational and school psychology. Course previously offered as ABSE 6850. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

EPSY 6880 Internship in Education
Prerequisites: Admission to advanced graduate program and consent of area coordinator.
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Course previously offered as ABSE 6880. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

FDEP 5183 Theories of Social Psychology
Prerequisites: Permission of instructor.
Description: History, theories, and empirical findings regarding the interactions between individual and group functioning. Previously offered as EPSY 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 5493 Psychology of Learning and Behavior
Description: An introduction to the psychology of learning and behavior. Examination of the principles of Classical and Operant conditioning and integration of these and other learning theories into applied settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 6123 Biological Bases of Behavior
Description: A study of the physiological basis for behavior. A survey of neurophysiology with emphasis placed upon sensory and motor processes, and the effect which emotion and motivation have upon the organization of behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

FDEP 6133 History and Systems of Psychology
Description: History and systems of psychology related to contemporary applied psychology. Previously offered as EPSY 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5063 Introduction to Gifted and Talented Education
Description: Concepts, techniques, and strategies for providing differentiated educational programs and experiences for the gifted and talented. State and Federal legislation; development of gifts and talents; program types; identification systems; program development; materials development; teaching techniques and methodologies. Previously offered as EPSY 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5163 Counseling Techniques for Teachers of Gifted and Talented Students
Description: Techniques for dealing with the conflicts experienced by gifted and talented students. Strategies for consulting with teachers, peers, and parents regarding optimal development of gifted. Peer counseling techniques, dealing with self-concept, social and emotional concerns, problem solving and decision making, referral procedures and self-analysis for teachers related to learning and teaching philosophy and style. Previously offered as EPSY 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5363 Differentiating Curriculum for Gifted Learners
Description: Development of curriculum for horizontal and vertical expansion and acceleration. Commercial and teacher prepared materials in imagination; imagery; analogy; metaphor; inductive, deductive and abductive thinking; sciencing; philosophy; logic systems; problem solving; psychology; concept learning; creativity; creative dramatics, etc. Conceptual approaches to the use of the preceding in various interest based and non-interest based curricular formats. Previously offered as EPSY 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5620 Practicum with Exceptional Learners
Description: Supervised individual and group experience with exceptional learners. The particular experience (learning disability, mental retardation, gifted, etc.) is determined by the student's field of specialization. Previously offered as EPSY 5620. Offered for variable credit, 1-6 credit hours, maximum of 8 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

GTED 5763 Teaching Methods and Techniques for Gifted Education
Description: Development of curriculum for horizontal and vertical expansion and acceleration. Commercial and teacher prepared materials in imagination; imagery, analogy, metaphor; inductive, deductive and abductive thinking; sciencing; philosophy; logic systems; problem solving; psychology; concept learning; creativity; creative dramatics, etc. Conceptual approaches to the use of the preceding in various interest based and non-interest based curricular formats. Previously offered as EPSY 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5863 Developing Programs for the Gifted and Talented
Description: Programs based on various philosophies and structural concepts of gifted and talented education, e.g., inclusion, self-contained, pullouts, magnet schools, time blocking, acceleration and enrichment. Programs designed for general and specific academic ability; however, exposure will be provided to creative and productive thinking programs, leadership programs, and visual and performing arts programs. Specific models included. Previously offered as EPSY 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

GTED 5993 Identification and Behavioral Characteristics of the Gifted and Talented
Description: Cognitive, affective, and behavioral characteristics of the gifted and talented. Selections of tests and interest inventories. Selection and/or developing of nomination/recommendation forms/models, inventories, checklists, rating scales, sociograms as well as data abstraction from cumulative and anecdotal records. Functions of gifted/talented identification committees. Previously offered as EPSY 5993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 2003 American Stories: Diverse Peoples in YA Literature (DH)
Description: Explores young adult literature representations of diverse peoples in America. Students examine historical and contemporary representations of diverse social and cultural groups through a variety of critical, analytical lenses such as literary or formal analysis, anti-bias antiracist/critical literacy, disability studies lens, genetic/historical criticism, and queer reading of young adult literature. Requires reading, discussion, and written analysis of young adult literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science
General Education and other Course Attributes: Diversity, Human Heritage & Cultures

LLCE 6060 Special Topics in Language, Literacy & Culture Education
Description: Seminar on special topics in language, literacy, and culture education. Course topics will differ depending on current interests and issues in the field.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6063 Theoretical Models and Processes of Literacies Education
Description: Doctoral level course that focuses on a broad range of theoretical models of P-12 literacies practices, with an emphasis on reading education. Both historical perspectives and contemporary theories are explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6083 Seminar in Writing Pedagogy
Prerequisites: Graduate standing with Graduate College.
Description: Seminal works in theory and research related to the teaching of writing in K-16 settings are examined. Students will examine the scholarship on genre theories, writing process theory, and writing pedagogy, considering the practical classroom implications and applications for this work. This course relies on reading, discussion, synthesis of key concepts, and individual inquiry as central learning processes. Previously offered as CIED 6083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6093 English Language Learners: Theory, Research, Policy and Practice
Prerequisites: CIED 5343 or instructor approval.
Description: History, theory, research, policy and practice of teaching English Language Learners and Emergent Multilingual students in PK-12 settings. Emphasis is placed on the critical pedagogical and theoretical aspects of teaching ELL, research and policy, as well as how assessments are used for the identification and placement of ELL students. Previously offered as CIED 6093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6113 Scholarly Writing in Literacies & Language Arts
Description: Doctoral level course that focuses on developing scholarly writing skills for publication in the disciplines of P-12 literacies and language arts education. Scholarly text structures, academic writing strategies, disciplinary publication venues and expectations are explored.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6183 Colloquium in Cultural Studies
Prerequisites: Graduate standing. For those in education, recommend SCFD 6113 and SCFD 6983.
Description: The study of culture and the problematics of culture beyond national boundaries and disciplinary divisions through interdisciplinary and post-disciplinary lenses in, but not limited to, the context of language and multiliteracies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6193 21st Century Literacies: Theory, Research, and Practice
Description: Theory and research on new literacies for the 21st Century including digital literacies, multimodalities, multi-literacies, participatory culture, and popular culture, considering the implications and applications for K-20 classroom. Previously offered as CIED 6193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6213 Observing and Responding to Young Readers in Reading Recovery
Description: Understanding the complex role of teacher leaders as they teach children and participate in the training of Reading Recovery teachers in the field. Develop role as a facilitator and problem solver in the implementation of Reading Recovery within school systems. Interaction with other teacher leaders and the University trainer at multiple training sites to broaden and deepen understanding of how to support and facilitate teachers' growth and development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6223 Theoretical Foundations in Early Literacy and Reading Recovery
Description: Introduction to underlying theories that contribute to early reading and writing. Critical understandings include the role of systematic observation of oral and written language and the relationship of oral language acquisition to early school literacy. A history of research in literacy processes that contribute to the foundations of Reading Recovery will be explored. (The course is the first course in the two-semester theory requirement for Reading Recovery teacher-leaders and trainers in training.)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6233 Reading Recovery Teacher Leadership
Description: Participants in this course will construct an understanding of the complex role of teacher leaders as they teach children and participate in the training of Reading Recovery teachers in the field. They will also acquire skills in fulfilling their role as a facilitator and problem solver in the implementation of Reading Recovery within school systems. They will interact with other teacher leaders and the University trainer at multiple training sites to broaden and deepen their understanding of how to support and facilitate teachers' growth and development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6243 Early Literacy Intervention in Reading Recovery
Description: This course focuses on the procedures for working with emerging at-risk readers and writers. The course content is based on strategies children need to be independent readers & writers. Course content and presentation reflect a highly-theoretical teacher decision making model based on actual observation of teacher-child interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6253 Advanced Theoretical Foundations of Early Literacy and Reading Recovery
Description: A course for Reading Recovery teacher leaders-in-training focusing on the underlying theories of early literacy acquisition (including processes related to reading, writing, and oral language) and the underlying theories of prevention of reading difficulties through early intervention.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6263 Advanced Reading Recovery Teacher Leadership
Description: This course involves the application of expertise in early literacy and early intervention leadership. Teacher leaders-in-training will participate in the implementation of early literacy teacher courses and early intervention in schools and systems, teach adult learners, and learn to use data to refine and evaluate implementation. Field work is required.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6513 Staff Development in Literacy Education
Description: Design and delivery of research related to staff development experiences in literacy. Previously offered as CIED 5510 and CIED 6513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6653 Issues and Trends in Adolescent Literacy
Description: This course addresses current issues and trends in adolescent literacy education including theory, research, and practice. Previously offered as CIED 6653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6673 Theory and Research on Teaching Contemporary Children's and YA Literature
Description: Theory and research related to teaching literacy through and with Contemporary Children's Adolescent, and Young Adult Literature. Previously offered as CIED 6673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

LLCE 6680 Research Collaboratives in Literacies & Language Arts Education
Prerequisites: SCFD 6113
Description: Doctoral students engage in faculty-led collaborative research teams to explore theoretical foundations and methodologies of P-12 literacies and language arts education. Students develop research skills, practices, and publications and are expected to carry out projects to completion/publication, which may involve commitment beyond the course. Attendance at weekly or biweekly team meetings is expected as well as independent and collaborative research time. Offered for variable credit, 1-3 hours, maximum of 6 hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

LLCE 6683 Language, Literacy and Culture
Description: The social-cultural perspectives related to the role of language in mediating literate behaviors, cognition and action in learning contexts. Aspects of language use within various learning contexts (situated cognition) and its academic, technical and everyday discourse in understanding the interrelationships among teaching, learning, knowledge and culture. Previously offered as CIED 6684 and CIED 6683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 1012 Inquiry Approaches to Teaching
Prerequisites: Interest in exploring teaching as a career.
Description: Master teachers introduce students to examples of high-quality inquiry-based lessons and model the educational concepts to which they are being introduced. Students prepare and participate in the teaching of multiple lessons in elementary classrooms. Previously offered as SMED 1011.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

SMED 1103 Teaching Science through Standards-Based Practices: Earth and Space Science
Description: Explores pedagogical strategies for the teaching and learning of Earth and space science systems. Students develop pedagogical content knowledge and will demonstrate a deep understanding of active investigations in the principles of Earth and space science systems. Course focuses on best pedagogical practices, formative assessments, and common student misconceptions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 2011 Inquiry-Based Lesson Design-Step 2
Prerequisites: SMED 1011 and an interest in exploring teaching as a career.
Description: Master teachers introduce students to examples of high-quality inquiry-based lessons and model the educational concepts to which they are being introduced. In Step 2, students prepare and participate in the teaching of three (3) lessons in middle school classrooms.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

SMED 2100 Seminar in Mathematics Education
Description: This course provides students with exposure to topics of interest in the Mathematics Education field. Seminar topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2153 Teaching Algebra, Data and Probability Across the Elementary Curriculum
Description: Explores underlying concepts and pedagogical strategies for teaching algebra, data, and probability. Best pedagogical practices, formative assessment and common student misconceptions will be focused around all topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2200 Seminar in Science Education
Description: This course provides students with exposure to topics of interest in the Science Education field. Seminar topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 2352 Nature Journaling: Standards-Based Science in the Outdoors
Description: Nature journaling involves blending science with art to better understand the natural world through the regular recording of observations, perceptions, patterns, and questions about the natural world. Topics cover a range of scientific background to prepare for teaching grades PreK-8. Course consists of field studies, readings, tutorials, and individual journaling. Best pedagogical practices, common student misconceptions, and the nature of science will be a focus within each topic.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3013 Knowing and Learning in K-12 Education
Description: Expands the prospective teacher's understanding of current theories of learning and conceptual development. Students examine their own assumptions about learning and critically examine the needs of a diverse student population in the classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3100 Workshop In Mathematics Education
Description: This course provides students with exposure to a specific topic of interest in the Mathematics Education field. Workshop topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 3153 Teaching Mathematics at the Primary Level
Prerequisites: Grade of "C" or better in: MATH 3603; six hours from MATH 1483, MATH 1493, MATH 1513, MATH 1613, MATH 2103, MATH 2144, SMED 2153 or STAT 2013; consent of instructor.
Description: Developmental levels in selection and organization of content and procedures for primary mathematics education. Same course as CIED 3153. Cannot be used for degree credit with SMED 5013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 3200 Workshop in Science Education
Description: This course provides students with exposure to a specific topic of interest in the Science Education field. Workshop topics will differ depending on current interests and topics in the field. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4003 Teaching Fundamental Concepts of Mathematics
Prerequisites: Full admission to Professional Education.
Description: Teaching of the basic skill areas. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken concurrently with public school practicum experiences. Course previously offered as CIED 4003. May not be used for degree credit with SMED 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4013 Classroom Interactions
Prerequisites: SMED 1011, SMED 2011, SMED 3013
Description: A close examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep conceptual understanding. Students will learn how content and pedagogy combine to create effective teaching.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4023 Advanced Field Placement in Mathematics and Science
Prerequisites: SMED 1011, SMED 2011, SMED 3013, SMED 4013, CIED 4613 or CIED 4003, and full admission to Professional Education.
Description: Explores authentic, important, and meaningful questions of real concern to students. Students will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Clinical, Lecture, Lecture Clinical
Department/School: Teaching, Learning, Ed Science

SMED 4053 Teaching Geometry in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Overview of the present secondary geometry curricula and future trends. Axiomatic development of Euclidean geometry, proofs and transformational geometry from the perspective of the secondary mathematics teachers. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken after or concurrently with MATH 4403. Course previously offered as CIED 4053. May not be used for degree credit with SMED 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4153 Teaching Mathematics at the Intermediate Level
Prerequisites: SMED 3153 or SMED 5013 (for Graduate Students) and MATH 3403 and MATH 3603, full admission to Professional Education.
Description: Selection and organization of content, procedures for instruction, and evaluation of outcomes in teaching the mathematics of the intermediate grades. Some attention to instruction in upper grades of the elementary school. Course previously offered as CIED 4153. May not be used for degree credit with SMED 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4353 Science in the Elementary School Curriculum
Prerequisites: Completion of 12 hours with a grade of "C" or better in required science courses and be fully admitted to Professional Education.
Description: The purposes, selection and organization of content, teaching and learning procedures and evaluation of outcomes in elementary school science. Course previously offered as CIED 4353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4560 Environmental Education
Description: Development of (teacher/leader) competencies in the content, methods, philosophy, and historical perspective of contemporary environmental education curricula using both indoor and outdoor settings as a multidisciplinary learning laboratory. Same course as CIED 5730. Course previously offered as CIED 4560. May not be used for degree credit with SMED 5560. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4611 Authentic Research in the Science Classroom
Prerequisites: SMED 1011; SMED 2011; SMED 3013; SMED 4013; and concurrent enrollment in SMED 4613.
Description: This course is designed to strengthen pre-service science teachers' understanding of how scientific knowledge is generated by engaging in an authentic research experience under the mentorship of a STEM mentor. Students will also learn how to write a scientific manuscript.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Teaching, Learning, Ed Science

SMED 4613 Teaching the Nature of Science Through an Inquiry Approach
Prerequisites: Full admission to professional education.
Description: This course is designed to assist pre-service science teachers in developing skills to teach science through an inquiry approach. Guided readings, discussions, group activities, and classroom field experiences, will focus on strengthening views on the nature of science. Course previously offered as CIED 4613. May not be used for degree credit with SMED 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4713 Teaching and Learning Science in the Secondary School
Prerequisites: CIED 4613, and full admission to Professional Education.
Description: Assists students in developing safe classroom practices, science curriculum, and educational assessments supported by teaching and learning theories. Weekly classroom field experiences are required. Must be taken the semester prior to student teaching/internship. May not be used for degree credit with SMED 5713.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 4723 Senior Seminar in Secondary Mathematics and Science Education
Prerequisites: SMED 1011, SMED 2011, SMED 3013, SMED 4013, SMED 4023, CIED 4613 or CIED 4003, and CIED 4713 or CIED 4053, and full admission to Professional Education.
Description: Explores classroom management and discipline approaches as well as teacher research, parental involvement, school climate and community relations. May not be used for degree credit with SMED 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 4813 Yellowstone Science for Educators (N)
Description: Explore the science of the Greater Yellowstone Area (GYA). This course focuses on the systematic study of natural processes and mechanisms associated with the GYA. Emphasis is placed on the biological and physical (chemistry, earth, and physic) science concepts that have formed the parks that exist today. Consequences of human intervention are addressed. Applications of science content to K-12 classroom curricula are addressed. Required field trip to the GYA.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science
General Education and other Course Attributes: Natural Science Reasoning

SMED 5003 Teaching Fundamental Concepts of Mathematics
Prerequisites: Full admission to Professional Education.
Description: Teaching of the basic skill areas. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken concurrently with public school practicum experiences. May not be used for degree credit with SMED 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5013 Mathematics Education: Theory and Practice(Grade 1-4)
Description: Curriculum, materials, methods, and procedures related to the theory and practices of teaching mathematics in grades 1-4. Meets with SMED 3153. No degree credit for those with credit in SMED 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5050 Seminar in Integrated Mathematics and Science Applications
Description: Seminar topics may differ depending upon the nature of current interests and topics in mathematics and science education. Course previously offered as CIED 5050. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5053 Teaching Geometry in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: Overview of the present secondary geometry curricula and future trends. Axiomatic development of Euclidean geometry, proofs and transformational geometry from the perspective of the secondary mathematics teachers. Study and comparison of contemporary basic mathematics textbooks. Recommended to be taken after or concurrently with MATH 4403. May not be used for degree credit with SMED 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5083 Teaching Science in the Elementary School (Grades 1-8)
Description: Curriculum, materials, methods, and procedures related to the theory and practice of science teaching in grades 1-8. Course previously offered as CIED 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5103 Teaching Mathematics at the Intermediate Level
Description: Selection and organization of content procedures for instruction, and evaluation of outcomes in teaching the mathematics of the intermediate grades. Some attention to instruction in upper grades of the elementary school. May not be used for degree credit with SMED 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5113 Knowing and Learning in Mathematics and Science
Prerequisites: Admission to MAT program or consent of instructor.
Description: Expands the prospective teacher's understanding of current theories of learning and conceptual development. Students examine their own assumptions about learning and what it means to teach. They critically examine the needs of a diverse student population in the classroom. Meets with SMED 3013. No degree credit for those with credit in SMED 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5123 Classroom Interactions in Mathematics and Science
Prerequisites: SMED 5113 and Admission to MAT program or consent of instructor.
Description: A close examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep conceptual understanding. Students will learn how content and pedagogy combine to make effective teaching. Includes a school-based field experience. Meets with SMED 4013. No degree credit for those with credit in SMED 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5133 Problem-Based Learning in Mathematics and Science
Prerequisites: SMED 5113 and Admission to MAT program or consent of instructor.
Description: Explores authentic, important, and meaningful questions of real concern to students. Students will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. Includes a school-based field experience. Meets with SMED 4023. No degree credit for those with credit in SMED 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5143 Methods for Teaching Secondary Science
Prerequisites: Admission into the Secondary Teaching Graduate Certificate Program or permission of instructor.
Description: Examines current trends and issues in secondary school science. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Secondary Education Graduate Certificate Program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5153 Methods for Teaching Secondary Math
Prerequisites: Admission into the Graduate Certificate for Effective Teaching in the Secondary Schools program or permission of instructor.
Description: Examines current trends and issues in secondary school mathematics. The major focus is to provide an overview of instructional strategies, assessment techniques, and curriculum development. Course is required in the Graduate Certificate for Effective Teaching in the Secondary Schools program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5183 Social Justice by the Numbers: Learning to Teach Science & Math for Understanding & Equity
Description: This course explores principles of social justice in education as a lens for rethinking school mathematics and science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5193 Inquiry and Problem-Based Learning in Science Education
Prerequisites: Completion of Bachelor's degree.
Description: Different aspects of teaching science through inquiry methods. Using current research as a guide, students will define scientific inquiry teaching and learning, explore assessing inquiry, and evaluate the roles of students, teachers, and discourse in the science classroom.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5203 Teaching the Nature of Science Through and Inquiry Approach
Prerequisites: Full admission to professional education.
Description: This course is designed to assist pre-service science teachers in developing skills to teach science through an inquiry approach. Guided readings, discussions, group activities, and classroom field experiences, will focus on strengthening views on the nature of science. May not be used for degree credit with SMED 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5223 Teaching Science in the Schools
Description: Materials, methods and classroom procedures related to science in grades K-12. Course previously offered as CIED 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5243 Environmental Education in the Curriculum
Description: Integration of environmental concepts in the total school curriculum. Review of P-12 environmental education curricula and methods of teaching environmental education in formal and nonformal settings. Course previously offered as CIED 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5253 Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on teaching rational number concepts and developing proportional reasoning skills; attention given to learning methods which facilitate appropriate classroom interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5263 Assessment and Evaluation in School Mathematics
Description: Focus on classroom assessment to help teachers identify what students know about critical mathematics concepts, skills, procedures, and facts. Emphasis would be on using that information to inform their instructional decisions and enhance student learning. Course previously offered as CIED 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5270 Practicum in School Mathematics
Description: Diagnostic and therapeutic procedures in mathematics with students of all ages. Laboratory classes provide for clinical experiences in evaluation and instruction with children experiencing difficulty in mathematics. Course previously offered as CIED 5270. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SMED 5273 Number Concepts and Assessment at the Elementary Level (PK-6)
Description: Analysis and construction of effective mathematical tasks in teaching number systems and operations at the PK-6 level; attention is also given to the expansion of content knowledge and issues related to assessment. Course previously offered as CIED 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5280 Workshop in Science Education
Description: Explores topics in science education, including developing, and/or implementing elementary and/or secondary science programming. Course previously offered as CIED 5280. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Lecture: 1-8 Contact: 1-8
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5283 Inquiry Teaching and Learning in Science and Mathematics Education
Description: Focus on different aspects of an inquiry learning environment in K-12 science and mathematics. Using current research as a guide, students will examine the structure of inquiry lessons, the roles of students and teachers, and classroom decision making that supports inquiry. Course previously offered as CIED 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5293 Teaching and Learning Mathematics in Technology
Description: The focus of this course is on research and methods of teaching and learning with technology in the mathematics classroom. Topics will include philosophical, social, developmental and theoretical issues associated with the development and use of technology and school reform. Activities and applications will be explored as they relate to the potential for providing a technology-rich learning environment conducive to student construction of mathematical knowledge. Course previously offered as CIED 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5313 Introduction to K-12 Engineering Education
Prerequisites: Completion of a Bachelors Degree.
Description: Involves the study of engineering education topics within the K-12 setting, which includes exploring current related literature as well as the implementation of the engineering design process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5323 Technology for the K-12 STEM Educator
Prerequisites: Completion of a Bachelor's Degree.
Description: Survey of current innovative technologies for K-12 STEM classrooms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5333 Developing Informal and Formal STEM Programs in Schools
Prerequisites: Completion of a Bachelor's Degree.
Description: Examines the areas of Science, Technology, Engineering, and Mathematics (STEM) that relate to curriculum development, instruction practices and leadership integration in schools and districts. Students will gain knowledge and skills to support STEM infusion throughout formal and informal environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5560 Environmental Education
Description: Development of (teacher/leader) competencies in the content, methods, philosophy, and historical perspective of contemporary environmental education curricula using both indoor and outdoor settings as a multidisciplinary learning laboratory. May not be used for degree credit with SMED 4560. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5613 Effective Teaching of Mathematics in the Secondary School
Prerequisites: Consent of instructor.
Description: Directed advanced practicum in secondary school mathematical education. Includes study of current research findings in mathematical education, teaching strategies, materials and evaluation procedures in the secondary school. For experienced classroom teachers, superintendents, principals and supervisors. Course previously offered as CIED 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5713 Teaching and Learning Science in the Secondary School
Prerequisites: Full admission to Professional Education.
Description: This course is designed to assist preservice science teachers in developing skills to teach science through an inquiry approach. The three components of science literacy: science content knowledge, practices of science, and nature of science are taught throughout the lens of a mentored science research apprenticeship. May not be used for degree credit with SMED 4713.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SMED 5723 Senior Seminar in the Secondary Mathematics and Science Education
Description: Explores classroom management and discipline approaches as well as teacher research, parental involvement, school climate and community relations. May not be used for degree credit with SMED 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5750 Seminar in Mathematics Education
Prerequisites: Consent of instructor.
Description: Problems, issues and trends in mathematics education. Course previously offered as CIED 5750. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5813 Assessment in Science Education
Prerequisites: Completion of a Bachelor's degree.
Description: Guided readings, discussions, and group activities focus on strengthening students' understanding of state and national assessments in science education. Previously offered as SMED 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5913 Teaching Geometry and Spatial Visualization
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on the development of geometric concepts and spatial visualization. Attention given to the understanding of learning trajectories and their role in student learning. Course previously offered as CIED 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5923 Teaching Algebra and Mathematical Tasks
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on algebra concepts of functional thinking and generalized arithmetic. Attention will be given to the analysis and construction of effective mathematical tasks in the teaching of algebra. Course previously offered as CIED 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5933 Teaching Data and Probability in Schools
Prerequisites: Completion of a Bachelor's degree.
Description: Focus on statistical literacy and the teaching of PK-12 data and probability concepts; emphasis on the use of instructional technology to enhance student learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 5943 Mathematics Leadership and Coaching
Prerequisites: Completion of a Bachelor's degree and nine hours from SMED 5253, SMED 5273, SMED 5913, SMED 5923, and SMED 5933.
Description: Develops skills and knowledge for school mathematics program design and leadership, and for coaching other teaching professionals in mathematics teaching. Course previously offered as CIED 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6123 Teaching the Nature of Science in Secondary Science Education
Prerequisites: Successful completion of a bachelor's degree.
Description: Guided readings, discussions, and group activities focus on strengthening views on the nature of science. Course previously offered as CIED 6123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6223 Instruction and Learning in Science and Mathematics Education
Prerequisites: Acceptance into a doctoral program.
Description: Focus on learning and teaching in science and mathematics education contexts. Students will analyze and synthesize research in science and mathematics education that are related to the learning sciences. Course previously offered as CIED 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6233 Affective Issues in Teaching Mathematics and Sciences
Prerequisites: Bachelor's Degree
Description: Explores current affective issues that influence the teaching and learning of mathematics and science. Students will explore topics such as beliefs, attitudes, emotions, motivation, efficacy, identity, and anxiety.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SMED 6753 Research in Mathematics and Science Education
Description: The examination of current research in mathematics and science teaching and learning, research designs, and the generation of new hypotheses. Course previously offered as CIED 6750 and SMED 6750.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 3202 Educating Exceptional Learners
Description: Learning characteristics, needs and problems of educating the exceptional learner in the public schools. Implications of the learning, environmental and cultural characteristics; planning and program assistance available for accommodating the exceptional learner in regular and special education programs; observation of exceptional learners. Previously offered as ABSE 3202.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Teaching, Learning, Ed Science

SPED 3623 Characteristics of Students with Mild/Moderate Disabilities
Prerequisites: SPED 3202.
Description: Educational, psychological, and physiological characteristics of individuals with mild and moderate disabilities. Professional roles of the teacher, professional ethics, and assessment of children with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 3683 Models of Instruction in the Inclusive Classroom
Description: Current techniques, models, and approaches used to teach students with mild-moderate disabilities and the theoretical bases for these techniques and approaches in inclusive classrooms will be presented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 3743 Planning, Compliance, and Current Practices in SPED
Prerequisites: SPED 3202 Teaching Exception Children.
Description: Examination of current and past policies and procedures that govern identification, referral, eligibility, and Individualized Education Programs of PK-12 students with disabilities. Current practices for planning and implementing instruction within a continuum of service delivery models. May not be used for degree credit with SPED 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 4723 Transition Into Adulthood for Individuals with Disabilities
Description: Strategies for preparing youth and young adults with disabilities for transitioning into adulthood. Previously offered as ABSE 4723. May not be used for degree credit with SPED 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 4753 Multi-tiered Classroom and Behavior Management
Description: Classroom and behavior management strategies designed to improve learning and behavior within instructional settings using multi-tiered systems of support. Previously offered as ABSE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5000 Master's Thesis
Description: Previously offered as ABSE 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 5123 Characteristics and Teaching Methods for Students with Autism Spectrum Disorders
Prerequisites: Graduate standing or permission of instructor.
Description: Designed to provide a foundation for understanding educational and psychological theory and best practices used in teaching students with Autism Spectrum Disorders (ASD). Characteristics and diagnostic procedures of ASD will be introduced, as well as such teaching methods as incidental teaching, visual supports, workstations, discrete trial teaching, and social stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5150 Seminar in Special Education
Description: Seminar topics will differ depending on interests and topics regarding Special Education. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5320 Seminar in Applied Behavioral Studies
Description: In-depth exploration of contemporary problems of applied behavioral studies. Offered for variable credit, 1-24 credit hours, maximum of 24 credit hours.
Credit hours: 1-24
Contact hours: Lecture: 1-24 Contact: 1-24
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5573 Communication Strategies for Individuals with Severe and Profound Disabilities
Description: Methods for communicating with severely or profoundly disabled persons and for facilitating their communication through speech, sign, assistive devices and technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5620 Practicum with Exceptional Learners
Prerequisites: Consent of instructor.
Description: Supervised individual and group experience with exceptional learners. The particular experience (learning disability, mental retardation, gifted, etc.) determined by the student's field of specialization. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 5623 Characteristics of Students with Mild/Moderate Disabilities
Description: Educational, psychological and physiological characteristics of individuals with mild and moderate disabilities. Professional roles of the teacher, professional ethics, and assessment of children with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5633 Behavior Characteristics of Exceptional Individuals
Description: Individual differences and problems that exceptional individuals experience. Educational programs and resources available to assist administrators, teachers and parents in dealing with unique individual needs. Previously offered as ABSE 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5643 Working with Families of Students with Diverse Needs
Description: Aiding the classroom teacher and other professional personnel in the understanding of unique needs, cultural factors, and interpersonal relations involved in working with families of exceptional children and stakeholders. Previously offered as ABSE 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5673 Improving Literacy Skills of Individuals with Disabilities
Description: Normal language development and variations from norms demonstrated by exceptional learner. Assessment techniques and intervention strategies appropriate for exceptional infants and children; theoretical approaches to language training, formal and informal; assessment techniques and techniques for exceptional individuals. Previously offered as ABSE 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5683 Models of Instruction in the Inclusive Classroom
Description: Current techniques, models and approaches used to teach students with mild-moderate disabilities and the theoretical bases for these techniques and approaches in inclusive classrooms will be presented. Previously offered as ABSE 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5723 Transition Into Adulthood for Individuals with Disabilities
Description: Strategies for preparing youth and young adults with disabilities for transitioning into adulthood. May not be used for degree credit with SPED 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5733 Teaching Strategies for Students with Physical and Health Disabilities
Prerequisites: SPED 5523 and graduate student standing.
Description: Design and implementation of educational programs, collaboration with families and other professionals, and advocacy for students with disabilities. Previously offered as ABSE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5743 Planning, Compliance and Current Practices
Description: Current practices for planning and implementing instruction within a continuum of service delivery models. Examination of current and past policies and procedures that govern identification, referral, eligibility, and individualized Education Programs of PK-12 students with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5783 Assessing Students with Disabilities
Description: The practice and practicality of the assessment process used in schools for students with disabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5883 Classroom and Behavior Management
Description: Classroom and behavior management strategies designed to improve learning and behavior within instructional settings. Previously offered as ABSE 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 5993 Culturally Responsive Teaching in Special Education
Description: Examination of the influence of ethnic, socioeconomic class, and gender factors on students with disabilities. Teaching attitudes and expectations, and curricular and instructional strategies for improving students' school performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6000 Doctoral Thesis
Description: Required of all candidates for doctorate in applied behavioral studies. Credit given upon completion and acceptance of thesis. Previously offered as ABSE 6000. Offered for variable credit, 1-12 credit hours, maximum of 25 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 6183 Legal Aspects in Special Education
Description: Familiarization and analysis of legal rights and responsibilities of students, educators, and administrators in special education; federal and state mandates, case law and recent legal developments affecting special education. Previously offered as ABSE 6183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6543 School and Interagency Collaboration
Prerequisites: Graduate student status or instructor permission.
Description: An advanced course to examine models for interdisciplinary teamwork in the design, delivery and evaluation of services for students with disabilities and at risk. Both school-based and interagency collaborative services and strategies for communicating with multiple stakeholders are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6603 Current Trends and Issues in Special Education
Description: Current research and literature regarding the education of exceptional children. Previously offered as ABSE 6603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6743 Single Subject Design in Special Education
Prerequisites: Consent of instructor.
Description: Conduct research utilizing single subject and single case study design with emphasis on special education. Advanced procedures in single subject research methodology, including design strategies and experimental control are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Teaching, Learning, Ed Science

SPED 6850 Directed Reading
Prerequisites: Consent of instructor.
Description: Directed reading for students with advanced graduate standing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

SPED 6880 Internship in Education
Description: Directed off-campus experiences designed to relate ideas and concepts to problems encountered in the management of the school program. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Teaching, Learning, Ed Science

WAED 5000 Thesis or Report
Description: Students studying for a master's degree may enroll for a total of two credit hours if they write a report or six hours if they write a thesis. Students working on a specialist's degree may earn a maximum of 10 hours credit. Previously offered as OCED 5000. Offered for variable credit, 2-10 credit hours, maximum of 10 credit hours.
Credit hours: 2-10
Contact hours: Contact: 2-10 Other: 2-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5010 Seminar
Description: Graduate student seminars focusing on current and critical issues and common problems relevant to workforce and adult education. Previously offered as OCED 5010. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5013 Foundations and Characteristics of Adult Learning
Description: Societal trends and issues which have influenced the development and current status of workforce and adult education. Learning patterns, interests and participation among adults in a variety of educational settings. Previously offered as HRAE 5213 and EDLE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5110 Career and Technical Information
Description: New development in scientific and technical information and knowledge that are relevant to current career, technical and trade practices. May not be used for degree credit with CTED 4110. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5113 Principles of Leadership in Workforce Education
Description: Principles and analysis of leadership in today's workforce education organizations and the effect of leadership practices on organizational climate and governance. Understanding today's labor market and the connection among education, government, and workforce development policy. Previously offered as OCED 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5123 Administration & Evaluation of Workforce and Adult Education
Description: Principles of effective planning, administration and evaluation of workforce and adult education settings. Techniques and strategies for designing, conducting, reporting, and applications of evaluations. Course previously offered as TIED 5223 and OCED 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5133 Internationalism, Globalization and Workforce Education
Description: Preparing a globally competitive workforce. Analysis of comparative international occupational/technical education systems, and critical issues in internationalism and globalization in workforce education development. Course previously offered as OAED 5133 and OCED 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5143 Organization and Administration of Adult Education
Description: Organizational procedures and administrative practices for effective planning, implementation and management of adult and continuing education programs. Analyses of legislation, finances and community groups that influence and impact upon adult and continuing education programs. Previously offered as HRAE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5153 Curriculum Planning in Workforce and Adult Education
Description: Principles and procedures for curriculum planning, development and management in workforce and adult education with analyses of current trends and practices and their implications for program quality. Course previously offered as OAED 5153 and OCED 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5163 Instructional Procedures in Career and Technical Education
Description: Methods and techniques for effective teaching and learning in career and technical classroom, laboratories, and technology-based environments. May not be used for degree credit with CTED 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5170 CTED Workshop
Description: Professional workshops of various topics and lengths. Focus on a particular topic from such areas as the development, use, and evaluation of instructional methods and materials. May not be used for degree credit with WAED 4010. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5183 Coordinating Career and Technical Student Organizations and Activities
Description: Student organizations and activities in career and technical education at local, state and national levels. Procedures for planning programs of work, incorporation of student organization activities into curriculum, adviser characteristics and responsibilities, fund-raising activities, and techniques for recognizing outstanding members and community supporters. May not be used for degree credit with CTED 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5193 Safety, Organization and Management of Learning Facilities
Description: Techniques and procedures for organizing and managing career and technical laboratory facilities and learner activities to enhance the quality of instruction and improve efficiency of equipment and space utilization, including all safety rules and procedures. May not be used for degree credit with CTED 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5203 Foundations of Adult and Continuing Education
Description: Societal trends, issues and institutions which have influenced the development and current status of adult and continuing education. Analyses and critiques of contemporary adult and continuing education activities, materials and clientele groups served, and their implications for new existing programs in the field. Previously offered as HRAE 5203 and EDLE 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5213 Occupational Analysis and Curriculum Development
Description: Analysis of occupational job activities; development of course objectives, course outlines, and specific instructional materials for occupational and technical courses. May not be used for degree credit with CTED 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5223 Program Planning for Workforce and Adult Educators
Description: Approaches to program planning designed around continuous improvement methods for problem solving, flow charting, budgeting, gaining program support, and research proven models applicable to workforce and adult education. Previously offered as OCED 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5232 Teaching Related Information
Description: Selection of job-related topics common to most workforce and adult education programs; procedures for incorporating those topics into the regular curriculum. Course previously offered as TIED 5232 and OCED 5232.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5233 Advanced Instructional Procedures in Workforce and Adult Education
Description: Advanced methods and procedures for effective teaching and learning in workforce and adult education classrooms and laboratories. Teaching basic education and employment skills and the selection of job-related topics common to most occupations with procedures for incorporating those topics into the regular curriculum. Course previously offered as TIED 5233 and OCED 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5313 Overview of Workforce and Adult Education
Description: Organization of workforce and adult education including its history, principles and evolving social, political and economic forces influencing the field. Course previously offered as OAED 5313 and OCED 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5333 Administration and Supervision of Workforce Education Programs
Description: Understanding and critically analyzing the quality of workforce education courses and the value they hold. Course previously offered as OAED 5333 and OCED 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5340 Special Problems in Workforce and Adult Education
Description: Directed independent study of special topics involving assigned readings, library research, field work or a combination of these. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as OCED 5340.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5353 Instructional Strategies for Adults
Description: An analysis and application of the various techniques and materials available to facilitate the learning process in workforce and adult education settings. Process of designing effective learning experiences, planning curriculum and developing competencies of the facilitators. Previously offered as HRAE 5253 and EDLE 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5423 Individualized Competency Based Instruction and Customized Training
Description: Principles, techniques, and technologies for creating and delivering individualized competency-based instruction and customized workplace training. Includes LAP systems and customizing for industry. Course previously offered as TIED 5443 and OCED 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5443 Interpreting Research in Workforce and Adult Education
Description: Seminar on the methods of research, review, synthesis and interpretation with application to particular fields of workforce and adult education. Course previously offered as OAED 5443 and OCED 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5683 Legal Issues in Career and Technical Education
Description: Overview of the law and the legal system, including how to perform legal research using library and internet resources, issues involving student organizations, intellectual property, and distance education. May not be used for degree credit with CTED 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5703 Adult Learning in Diverse Settings
Description: The study of adult learning in diverse geographic and cultural settings. Interaction with experts in the field and reflection upon their experiences after returning from travel. Previously offered as HRAE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5720 Workshop
Description: Professional workshops of various topics and lengths. Each workshop designed to meet unique or special needs of individuals concerned with adult education and workplace learning. Previously offered as OCED 5720. Offered for variable credit, 1-3 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5730 Special Topics in Adult Education
Description: The practice, theory and research related to a current topic in adult education. Previously offered as HRAE 5730. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5733 Current Issues in Career and Technical Education
Description: Defining current issues, conducting action research and proposing possible solutions to current issues in CTED. Debating opposing views and giving logic and reasoning for each view. May not be used for degree credit with CTED 4673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5833 Global Consulting
Description: The consulting process, including contract, entry, diagnosis, response, disengagement, closure and ethical considerations. The competencies of successful consultants and trainers in the international environment, including cultural adaptations of self and of training materials. Previously offered as HRAE 5833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 5880 Internship in Workforce and Adult Education
Description: Supervised experience working in business, industry, human service, or education settings. Previously offered as OCED 5880. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 5910 Developing and Analyzing Teaching Content
Description: Provides opportunity for experienced teachers to incorporate the latest workforce and adult education methodology, strategy, and/or technology into their course of study. Previously offered as OCED 5910. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6000 Doctoral Dissertation
Description: Required of all candidates for the Doctor of Philosophy degree. Credit is given upon completion of the dissertation. Previously offered as OCED 6000. Offered for variable credit, 1-25 credit hours, maximum of 25 credit hours.
Credit hours: 1-25
Contact hours: Contact: 1-25 Other: 1-25
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6103 Philosophy of Workforce and Adult Education
Description: Alternative perspectives for developing a philosophic position in workforce and adult education. Course previously offered as OAED 6103 and OCED 6103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6110 Graduate Reading in Workforce and Adult Education
Description: Supervised readings of significant literature not included in regularly scheduled courses. Previously offered as OCED 6110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6113 Supervision of Workforce Education Instruction
Description: Theoretical and practical application of current instructional supervision in workforce education setting. Strategies for effective supervision are learned through practice in analyzing teacher instruction for provisional and standard certifications and for industry certified instructors. Course previously offered as OAED 6113 and OCED 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6123 Foundations of Lifelong Learning
Description: The definitions, historical and philosophical development, and the scope and function of lifelong learning. Previously offered as HRAE 6103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6213 Lifelong Learning and Performance
Description: Lifelong learning theory within the context of applications in formal and informal settings in the community as well as in the workplace. Synthesis of research findings on changes of cognitive performance due to aging and analysis of recent literature on participation in adult education and training. Previously offered as OAED 6213 and HRAE 6213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6223 Current Research in Adult Education
Description: Analysis of the major research trends in the field of adult education. Recent research studies in the field. Previously offered as HRAE 6223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6233 Managing Knowledge in Learning Organizations
Description: Analyze the knowledge management concepts of informal learning, communities of practice, knowledge/learning transfer, organizational learning, and knowledge creation in learning organizations and workplaces. Conduct self-directed research projects on course-related topics and develop a conceptual map of learning concepts. Previously offered as OCED 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6253 Critical Issues in Adult Education
Description: Exploration of current issues of concern to adult educators from diverse settings. Previously offered as HRAE 6233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6330 Special Topics in Adult Education
Description: Analysis and critique of the application of adult learning principles and methods in one of the numerous diverse settings in which adult education is practiced. Previously offered as HRAE 6330. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

WAED 6333 Strategic Planning in Workplace Learning and Organizational Performance
Description: Theory, trends, and competency model development performance areas. Course previously offered as OAED 6333 and OCED 6333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6343 Financing Workforce and Adult Education
Description: Development of conceptual and legal bases for funding public workforce and adult education programs. Sources of funds, distribution strategies, local, state and federal accountability requirements, and fraud and abuse funds. Previously offered as OCED 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6353 Future of Technology, Work and Society
Description: Complex interrelationships among emerging and future technologies, human society, and the definition and evolution of work in a global society. Traditional and emerging theoretical frames for technology and the future. Previously offered as OCED 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Educ Found Leadersh & Aviation

WAED 6880 Doctoral Internship in Workforce and Adult Education
Description: Directed field experiences related to the participant's area of concentration. Practice and testing ideas, theories and concepts learned in graduate study. Previously offered as OCED 6880. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Educ Found Leadersh & Aviation

Undergraduate Programs

- Elementary Education, BS (p. 2236)
- Secondary Education: English - Alternative Certification, BS (p. 2240)
- Secondary Education: English, BS (p. 2242)
- Secondary Education: Mathematics, BS (p. 2245)
- Secondary Education: Science, BS (p. 2248)
- Secondary Education: Social Studies - Alternative Education, BS (p. 2254)
- Secondary Education: Social Studies, BS (p. 2256)

Graduate Programs

The School offers graduate degree programs at the master's and doctoral levels. While specialization is required, maximum program flexibility enables students to meet individual goals. Programs are designed to prepare persons to enter public or private elementary and secondary schools as teachers or school psychologists, curriculum directors, department heads, reading/literacy specialists and instructional leaders or enter other educational institutions and community agencies as educational leaders. Doctoral programs provide preparation for university teaching and research, as well as for P-12 roles, such as curriculum administrators.

Programs in the School offer the Master of Science (MS) in Teaching, Learning, and Leadership, Master of Arts in Teaching (MATT), Master of Science in School Psychology, a Graduate Certificate in College Teaching, an education Specialist in School Psychology, a Doctor of Philosophy in School Psychology, and a Doctor of Philosophy (PhD) in Education.

Master of Science in Teaching, Learning and Leadership (TLL)

Erin Dyke, PhD—Associate Professor and TLL Degree Coordinator

A student may earn the degree of Master of Science (MS) in Teaching, Learning, and Leadership. Students specialize in several areas highlighted below as TLL options. All options include at least one research course. Students planning an emphasis in K-12, secondary education, or math/science education may incorporate graduate coursework from an academic discipline. The master's degree program is also frequently designed to qualify graduates for certification in a specific area.

The *Curriculum and Leadership Studies* option provides a sound foundation in curriculum knowledge including the social, philosophical, ethical, political, historical and psychological aspects of curriculum, curriculum planning, pedagogy and curriculum leadership. The degree program will deepen one's knowledge of curriculum and will prepare graduates for positions as curriculum leaders, curriculum planners, curriculum administrators, curriculum consultants, teacher leaders and teacher researchers. Program content will benefit those teachers pursuing National Board Certification. Many classes are offered on both Stillwater and Tulsa campuses.

The *K12 Masters* (K12) provides choices for students to include coursework to enhance their understanding of teaching and learning at their chosen level, and in the case of secondary or K-12 to include content area coursework.

The *Math/Science Education* option provides extended coursework in both content area and pedagogy as students take courses in math or science education and additional math or science courses through the College of Arts and Sciences. The option also includes coursework integrating math and science pedagogy so that graduates will be skilled in content integration between the two areas. The option is designed to prepare teacher leaders in math education and/or science education. This option asks applicants to either hold an undergraduate major or minor in mathematics or science or post a satisfactory score on the quantitative portion of the Graduate Record Exam.

The *Reading and Literacy* option provides students with experiences to develop knowledge of comprehensive, P-12 literacy curriculum and instruction including regular and intensive reading instruction, literacy assessment and evaluation, language arts/writing instruction, and the roles of children's literature. The program also supports candidates' development in the areas of education theory and research, curriculum design, creating literate environments, appreciating and including diverse learners, and providing quality professional development as program administrators or literacy coaches. Students who complete the Reading Specialist requirements can be recommended to the Oklahoma State Department of Education for P-12 Reading Specialist certification.

The *Special Education* option is designed to prepare educators to work effectively with children and youth with mild to moderate disabilities. The option encompasses two primary pathways: Advanced Educator and Initial Certification. Classes are scheduled during evenings and weekends, and can be taken on a part-time or full-time basis. Classes utilize a variety of instructional formats including face-to-face classroom interaction, compressed video and hybrid design, where instruction includes both classroom interaction and online learning. To be eligible for state certification, students must pass Teacher Certification Examinations.

Master of Science in School Psychology

A degree in educational psychology with an option in school psychometrics is awarded to students who are en route for either the EdS or PhD degree in school psychology. Students must be admitted to the EdS or PhD program to receive the MS. (Students are not admitted directly to the MS degree.)

College Teaching Graduate Certificate

Hongyu Wang, PhD—Professor, Curriculum Studies

College Teaching Graduate Certificate is housed in Curriculum Studies Program at School of Teaching, Learning and Education Studies. It is a stand-alone certificate program to help current college and university faculty (including both full-time and part-time faculty as well as graduate teaching assistants who have college teaching assignments) develop and improve knowledge, skills, and capacities for successful college teaching, as well as advance their teaching vision, philosophy and adaptability in a rapidly changing society at a range of institutions of higher education. Credit hours successfully completed are transferable to Curriculum Studies options in MS and PhD degree.

Graduate Certificate for Effective Teaching in Elementary Schools

Brandi Davis—Graduate Coordinator

The Graduate Certificate for Effective Teaching in Elementary Schools is housed in the Elementary Education Program at School of Teaching, Learning and Education Studies. It is a stand-alone certificate program to help alternatively-certified teachers develop and improve knowledge, skills, and capacities for successful teaching, classroom management, content pedagogy, and reflection on professional practice. Credit hours successfully completed are transferable to the EMSK12 options in MS in Teaching, Leadership and Learning.

Graduate Certificate for Effective Teaching in Secondary Schools

Brandi Davis—Graduate Coordinator

The Graduate Certificate for Effective Teaching in Secondary Schools is housed in the Secondary Education Program at School of Teaching, Learning and Education Studies. It is a stand-alone certificate program to help alternatively-certified teachers develop and improve knowledge, skills, and capacities for successful teaching, classroom management, content pedagogy, and reflection on professional practice. Credit hours successfully completed are transferable to the EMSK12 options in MS in Teaching, Leadership and Learning.

Graduate Certificate for Elementary Mathematics Specialist

Brandi Davis—Graduate Coordinator

Graduate Certificate for STEM Education

Jennifer Cribs—Professor, Math Education

Education Specialist (EdS) in School Psychology

Brian Poncy, PhD—Professor, EdS Program Training Director

The NASP-approved (National Association of School Psychologists) specialist program is available. The EdS is the appropriate level of training for those who are interested in applying psychology to a variety of child-related learning and adjustment problems, and for the improvement of children's mental health in school settings. Specialist-level school psychologists typically work in school systems and function in diverse roles including consultation, psychological and psycho-educational assessment, and intervention to facilitate success for all children. The EdS program at OSU is approximately 77 hours, consistent with the NASP standards for training, and meets the Oklahoma State Department of Education certification requirements. Successful completion of this program leads to eligibility for certification by the Oklahoma State Department of Education as a school psychologist and also the NASP National Certification in School Psychology (NCSP). Applications for the EdS program are due February 1 for consideration for admission the following semester.

PhD in School Psychology

Brian Poncy, PhD—Professor and PhD Program Training Director

The doctoral program in school psychology is accredited by the American Psychological Association and approved by the National Association of School Psychologists. The program follows the scientist practitioner model that emphasizes the application of the scientific knowledge and methodological rigor in the delivery of school psychological services and in conducting research. Training in the scientist/practitioner model is for the purpose of developing a Science-Based Child/Learner Success orientation in students. Doctoral-level school psychologists function in diverse and important roles including consultation, assessment, intervention therapy, supervision, program evaluation and research to facilitate success for all learners. They add to the understanding of children and their families by contributing to the scientific knowledge base related to all aspects of child development. They are employed in many different settings including elementary and secondary schools, private practice, university, hospitals and mental health centers. School psychologists work with diverse populations and provide psychological services to children, youth, families, caregivers, school personnel, adult learners and individuals with special needs, as well as to the systems in which these individuals need to be successful. Applications for the PhD program in school psychology are due by January 1 for the following fall enrollment.

Doctor of Philosophy in Education

Students in the Doctor of Philosophy in Education program critically analyze teaching and learning in different contexts both inside and outside of school, explore how these processes are embedded in wider social, political and economic contexts, and envision the possibilities for improving teaching and learning. To this end, the program has an emphasis on the critical production of research with the intent that graduates from this program will contribute to their scholarly fields while addressing the needs of the state of Oklahoma, the country and the larger global community. The integration of seven degree options—Curriculum Studies; Educational Technology; Language, Literacy, and Culture; Mathematics and Science Education; Professional Education Studies; Social Foundations of Education; and Workforce and Adult Education—provides a conceptually coherent doctoral program in which students and faculty explore teaching and learning in new ways within various cultural milieus, such as the family, occupations, public schools and universities. The Ph.D. degree, with options housed in two Schools within the College of Education, Health and Aviation, prepares researchers and leaders to serve in professional positions in universities, P-12 schools, career and technical schools, research agencies, policy agencies and other educational settings (such as museums, educational publishing, and curriculum development).

The *Curriculum Studies* option's mission is to educate scholars with a deep understanding and ability to create and use knowledge of curriculum studies in the field of education and in other scholarly communities interested in the advancement of education at the state, national, and international levels. In articulating the field of curriculum studies, it is important to acknowledge the broadest views of curriculum,

including content and organization of school, the social context in which school is situated, and the process of education both in and out of school. Curriculum studies is understood as both a disciplinary and an interdisciplinary field of study with its own distinctive history, conceptions, and modes of inquiry, always open to new scholarship. Curriculum theorizing, curriculum development and assessment, pedagogy, curriculum inquiry, curriculum history, leadership and advocacy, critical media literacy, teacher research, and intercultural and international dialogue are all part of the scholarship of curriculum studies in the program. Particular attention is also devoted to those absent from typical curriculum decision making; curriculum studies is concerned with issues of equity, access, and voice. This option is housed in the School of Teaching, Learning and Education Sciences.

The *Educational Technology* option focus is on the core areas of the field: design, development, utilization, production and evaluation of instructional systems, human computer interaction and technology applications to support learning and teaching. The doctoral program emphasizes research using educational technology in applied settings. The Ph.D. in Education/Educational Technology prepares future researchers for a variety of professional positions. Graduates are typically employed as university faculty, educational or instructional technology specialists in universities, community colleges and schools, or as training managers or instructional designer/developers in corporate settings. This option is housed in the School of Educational Foundations, Leadership and Aviation (SEFLA).

The *Mathematics Education* option prepares students to conduct research on teaching and learning mathematics at the P-12 level. Research may focus on a variety of aspects of teaching and learning mathematics including the affective domain and employ a wide variety of quantitative, qualitative or mixed methods. Graduates are prepared to teach a broad range of mathematics education courses at both the undergraduate and graduate levels and are qualified for faculty positions in community colleges or secondary teacher education programs as well as other mathematics education leadership positions. This option is housed in the School of Teaching, Learning and Education Sciences.

The *Language, Literacy, and Culture* option focuses on the intersection of theory, research, practice and policy in the examination of language, literacy and culture from early childhood through adulthood recognizing the centrality of literacy in promoting equitable opportunities in our global society. Students explore language and literacy demands across diverse contexts and across social movements to promote equity and honor linguistic and socio-cultural diversity as cultural capital. Specializations in this option include reading, writing and New Literacies; English education; children's and adolescent literature; and world language education. This option is housed in the School of Teaching, Learning and Education Sciences.

The *Professional Education Studies* option is intended to develop scholars of educational theory and research who advance knowledge fundamental to teaching and learning in a diverse and global society and fundamental to social justice and equity in education. Diverse perspectives include but are not limited to in-depth study of theories used to advance social justice and equity in education, teaching and learning; analyses of diverse teaching and learning contexts; application of inquiry-based teaching-learning theory; use of research methodologies (qualitative, quantitative, mixed methods and conceptual/theoretical methodologies) for studies in education; and conceptualization and reconceptualization of the meaning and value of social justice and equity in education, teaching, learning and teaching-learning contexts. This option is housed in the School of Teaching, Learning and Education Sciences. Maximum flexibility is provided for students to develop a specialization that meets their scholarly interests and career goals. Special Education is one specialization/emphasis area available in this option.

The *Science Education* option prepares students to conduct research on teaching and learning science at the P-12 level, and beyond. Research may focus on a variety of aspects of teaching and learning science and employ a wide variety of quantitative, qualitative or mixed methods. Graduates are prepared to teach a broad range of science education courses at both the undergraduate and graduate levels and are qualified for faculty positions in community colleges or secondary teacher education programs as well as other science education leadership positions. This option is housed in the School of Teaching, Learning and Education Sciences.

The *Social Foundations* option is intended to prepare future scholars and educators to employ a number of different disciplinary perspectives to analyze critically and evaluate policies and practices within and outside education to understand better how such policies and practices shape educational institutions. This approach is intended to heighten students' abilities to examine, understand and explain educational arrangements, processes and practices to develop a disciplined sense of policy-oriented educational responsibility. Scholars in social foundations are expected to contribute to advancing the educational enterprise at national and international levels. This option is housed in the School of Educational Foundations, Leadership and Aviation (SEFLA).

The *Workforce and Adult Education* option is intended to strengthen research activities for improving practice in occupational education, provide graduate programs that reflect transformative roles in occupational education and the workplace, strengthen leadership and outreach services to the discipline, expand activities in international workforce development, and strengthen the cultural diversity in the field of occupational education studies. The focus is to prepare persons for leadership positions in higher education; international occupational education and workforce development organizations; national, state and community agencies; as well as public and private educational institutions. This option is housed in the School of Teaching, Learning and Education Sciences.

General Program Requirements, Application Procedures and Financial Aid

Master's Program

TLL master's degree options requires a minimum of 36 hours of coursework. In addition to coursework students take a comprehensive exam and complete either a Creative Component or Thesis. The Creative Component can take a variety of forms, as approved by the Advisory Committee, from an advanced paper to a creative demonstration of expertise gained through the degree. The thesis is original research. The student's Advisory Committee (three members) assists the student through all aspects of the program. Application to the Graduate College precedes program admission decisions. For unqualified admission an applicant must have completed an undergraduate degree in Education or a related field and must submit a curriculum vita and goals statement aligned with the option area chosen. Option areas have minimum grade-point requirements for the undergraduate degree and may have additional materials that make up the admissions packet.

Doctoral Program

The Doctor of Philosophy (PhD) degree requires a minimum of 69 semester hours beyond the master's degree. Application to the Graduate

College precedes program admission decisions. For program admission, candidates submit scores from the Graduate Record Exam or the Miller Analogies Test, a Statement of Goals and Objectives, references and examples of written expression. An interview may be required. To enter candidacy, students must pass a qualifying exam. Candidates conduct independent, original research reported through a dissertation. The student's Advisory Committee (four members) assists the student through all aspects of the program.

Financial Aid

Some support is available each year for research assistantships and for qualified graduate students to assume teaching responsibilities in the undergraduate curriculum. Interested persons are encouraged to apply at any time. Applications can be obtained from the School of Teaching, Learning and Education Sciences.

Minors

- Public School Support Specialist for Children At-Risk (PSSC), Minor (p. 2239)
- Special Education (SPED), Minor (p. 2259)

Certificates

- Special Education, UCRT (p. 2260)

Faculty

Stephanie Hathcock, PhD, Associate Professor—Interim School Head
Professor and Dean: Jon Pedersen, PhD
Professors: Jennifer Cribbs, PhD; Gary Duhon, PhD; Toni Ivey, PhD; Christine Ormsbee, PhD; Brian Poncy, PhD; Jennifer Sanders, PhD; Donita Massengill Shaw, PhD; Sheri Vasinda, EdD; Hongyu Wang, PhD; Qiuying Wang, PhD; Kelly Whalon, PhD
Associate Professors: Sarah Donovan, PhD; Erin Dyke, PhD; Stephanie Hathcock, PhD; Shanedra Nowell, PhD; M. Sue Christian Parsons, PhD; Adrienne Redmond-Sanogo, PhD; Candace Schell, PhD; Joe Terantino, PhD; Karen Zwanch, PhD
Assistant Professors: Jennifer Schneider, PhD; Greg Schutte, PhD; Jon Smythe, PhD
Teaching Assistant Professor: Bridget Broome, PhD; Kansas Cole, PhD; Jolie Hicks, PhD; Jamie Lake, PhD; Shelley Martin, PhD; Courtney Tennell, PhD; Staci Thomas, PhD; Jessica Watts, PhD; John Weaver, PhD
Visiting Teaching Assistant Professor: Jinan El Sabbagh, PhD
Teaching Instructors: Amy Dunn, MS; Robin Fisher, MS; Jill Metzger, MS; Jayne Ann Williamson, MS

Elementary Education, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 124

Code	Title	Hours
General Education Requirements		
*Minimum grade of "C" or "P" in each course		
*Minimum GPA 2.50 required in combination with Major Requirements		
*Certification requirements that meet GE requirements		
*English Composition courses**		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following courses:*		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following courses:*		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following courses:*		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1493	Applications of Modern Mathematics (Q)	
MATH 1513	College Algebra (Q)	
MATH 1613	Trigonometry (Q)	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Select one of the following courses:*		3
LLCE 2003	American Stories: Diverse Peoples in YA Literature (DH)	
ENGL 2413	Exploring Literature (DH)	
ENGL 2883	Survey of American Literature II (DH)	
Select one of the following courses:*		3
ART 1503	Art History Survey to 1400 (H)	
ART 1513	Art History Survey Since 1400 (H)	
ART 1603	Introduction to Global Art (H)	
MUSI 2573	Introduction to Music (H)	
Reasoning in the Natural Sciences (N)		
Select 10 hours of the following courses.*		10
Must include one Laboratory-Based Inquiry (L) course*		
Choose from any of the following courses with the help of your advisor:		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) (or higher)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1014	Chemistry In Civilization (LN) (or higher)	
PHYS 1014	Descriptive Physics (N) (or higher)	
ENVR 1113	Elements of Environmental Science (N)	
GEOG 1114	Introduction to Physical Geography (LN)	
GEOL 1003	The Story of Dinosaurs (N)	
GEOL 1014	Geology and Human Affairs (LN)	
GEOL 1114	Physical Geology (LN)	
HORT 1013	Principles of Horticultural Science (LN)	
*Exploring Society & Human Behavior (S)**		
PSYC 1113	Introductory Psychology (S) *	3
or SOC 1113	Introductory Sociology (S)	
Diversity (D) *		
May be paired with another designated course		
Global Cultural Competency (G)		
Select one of the following courses:*		3
GEOG 1113	Introduction to Cultural Geography (GS) *	
GEOG 1713	Regions & Nations in Global Context (GS) *	
GLST 1713	Regions & Nations in Global Context (GS) *	
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Select one of the following courses*:		3
ENGL 2243	Language, Text and Culture (GH) *	
ENGL 2513	Introduction to Creative Writing (H) *	
SPCH 2713	Introduction to Speech Communication (S) *	
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 10 hours of electives (3 hours may need to be foreign language)		10
Hours Subtotal		**12**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of “C” or “P” in each course		
CIED 3133	Children's Literature Across the Curriculum	3
CIED 3253	Teaching Language Arts in the Elementary and Middle School	3
CIED 3293	Teaching Reading in the Elementary and Middle School	3
CIED 4213	Introduction to Visual Arts in the Curriculum	3

or CIED 4243	Creativity and Critical Thinking in the K12 Classroom	
CIED 4233	Literacy Assessment and Instruction	3
HLTH 2603	Total Wellness (S)	3
Mathematics		
MATH 3403	Geometric Structures for Early Childhood and Elementary Teachers	3
MATH 3603	Mathematical Structures for Early Childhood and Elementary Teachers	3
SMED 3153	Teaching Mathematics at the Primary Level	3
Choose one of the following:		3
SMED 2100	Seminar in Mathematics Education	
SMED 2153	Teaching Algebra, Data and Probability Across the Elementary Curriculum	
SMED 3100	Workshop In Mathematics Education	
Sciences		
Select 2 hours of the following courses:		2
SMED 2200	Seminar in Science Education	
SMED 2352	Nature Journaling: Standards-Based Science in the Outdoors	
SMED 3200	Workshop in Science Education	
Taken as a block semester prior to student teaching:		
CIED 4103	Introduction to English Learners for Early Childhood and Elementary Teachers [1]	3
CIED 4323	Social Studies in the Elementary School Curriculum [1]	3
CIED 4373	Classroom Environments and Experience [1]	3
SMED 4153	Teaching Mathematics at the Intermediate Level [1]	3
SMED 4353	Science in the Elementary School Curriculum [1]	3
Hours Subtotal		**47**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
CIED 2453	Introduction to Teaching and Learning	3
CIED 3622	Middle Level Education	2
EDTC 3123	Applications of Educational Technologies	3
EPSY 3113	Psychological Foundations of Childhood	3
or SMED 3013	Knowing and Learning in K-12 Education	
SPED 3202	Educating Exceptional Learners	2
Student Teaching Block		
CIED 4453	Senior Seminar in Elementary Education [1]	3
CIED 4450	Internship in Elementary Education [1]	9
Hours Subtotal		**25**
Total Hours		**124**

1

Full admission to Professional Education required.

Other Requirements

- 40 hours of upper-division coursework. Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements and specified general education requirements; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of "C" or "P" in each course in the Major Requirements and specified General Education and Professional Core Requirements and must earn grades of "P" in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice-high level from among those languages identified by the Office of Educational Quality and Accountability. For clarification see OSU academic advisor.
- Transfer Admission Requirements: 2.00 GPA for less than 31 hours; 2.25 GPA for 31-45 hours; 2.50 GPA for more than 45 hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113	Composition I	3
or ENGL 1313	or Critical Analysis and Writing I	
4 Hours from: GEOL 1014, GEOG 1114, GEOL 1114, BIOL 1113 & BIOL 1111, CHEM 1014, PHYS 1014, or other N/L course		4
HIST 1103	Survey of American History	3
or HIST 1483	or American History to 1865 (H)	
or HIST 1493	or American History Since 1865 (DH)	
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1493	or Applications of Modern Mathematics (Q)	
or MATH 1513	or College Algebra (Q)	
or MATH 1613	or Trigonometry (Q)	
or MATH 2103	or Business Calculus (Q)	
or MATH 2144	or Calculus I (Q)	
or STAT 2013	or Elementary Statistics (Q)	
UNIV 1111	First Year Seminar	1
	Hours	**14**

Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
SMED 2100 or SMED 3100 or SMED 2153	Seminar in Mathematics Education [1] or Workshop In Mathematics Education or Teaching Algebra, Data and Probability Across the Elementary Curriculum	3
SMED 2200 or SMED 2352 or SMED 3200	Seminar in Science Education or Nature Journaling: Standards-Based Science in the Outdoors or Workshop in Science Education	2
POLS 1113	American Government	3
PSYC 1113 or SOC 1113	Introductory Psychology (S) or Introductory Sociology (S)	3
3 hours of Elective		3
	Hours	**17**
Sophomore		
Fall		
CIED 2453	Introduction to Teaching and Learning	3
3 Hours from: GEOL 1003, ENVR 1113, HORT 1013 or other (N) designated course		3
3 Hours Elective [2]		3
GEOG 1113 or GEOG 1713 or GLST 1713	Introduction to Cultural Geography (GS) or Regions & Nations in Global Context (GS) or Regions & Nations in Global Context (GS)	3
LLCE 2003 or ENGL 2413 or ENGL 2883	American Stories: Diverse Peoples in YA Literature (DH) or Exploring Literature (DH) or Survey of American Literature II (DH)	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
ART 1503 or ART 1513 or MUSI 2573 or ART 1603	Art History Survey to 1400 (H) or Art History Survey Since 1400 (H) or Introduction to Music (H) or Introduction to Global Art (H)	3
CIED 3133	Children's Literature Across the Curriculum	3
ENGL 2243 or ENGL 2513 or SPCH 2713	Language, Text and Culture (GH) or Introduction to Creative Writing (H) or Introduction to Speech Communication (S)	3
HLTH 2603	Total Wellness (S)	3
MATH 3603	Mathematical Structures for Early Childhood and Elementary Teachers	3
3 credit hours from: GEOL 1003, ENVR 1113, HORT 1013, or other N designated course		3
	Hours	**18**
Junior		
Fall		
CIED 3253	Teaching Language Arts in the Elementary and Middle School	3
CIED 3293	Teaching Reading in the Elementary and Middle School	3
EPSY 3113 or SMED 3013	Psychological Foundations of Childhood or Knowing and Learning in K-12 Education	3
CIED 4243	Creativity and Critical Thinking in the K12 Classroom	3
MATH 3403	Geometric Structures for Early Childhood and Elementary Teachers	3
	Hours	**15**
Spring		
CIED 3622	Middle Level Education	2
CIED 4233	Literacy Assessment and Instruction	3
EDTC 3123	Applications of Educational Technologies	3
4 Hours of Elective		4
SMED 3153	Teaching Mathematics at the Primary Level	3
SPED 3202	Educating Exceptional Learners	2
	Hours	**17**
Senior		
Fall		
CIED 4373	Classroom Environments and Experience	3
CIED 4103	Introduction to English Learners for Early Childhood and Elementary Teachers	3
CIED 4323	Social Studies in the Elementary School Curriculum	3
SMED 4153	Teaching Mathematics at the Intermediate Level	3
SMED 4353	Science in the Elementary School Curriculum	3
	Hours	**15**
Spring		
CIED 4450	Internship in Elementary Education	9
CIED 4453	Senior Seminar in Elementary Education	3
	Hours	**12**
	Total Hours	**124**

2

Foreign Language requirements are met upon completion of CIED 4103. Any additional foreign language credits become electives.

Public School Support Specialist for Children At-Risk (PSSC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Terry Stinnett, Ph.D., School of Teaching, Learning and Educational Sciences, 245 Willard, 405-744-9456

Minimum Overall Grade Point Average: A grade of "C" or better must be obtained for all minor courses.
Total Hours: 15

Code	Title	Hours
SPED 3683	Models of Instruction in the Inclusive Classroom	3
SPSY 3423	Psychology of Learning Disorders: Characteristics, Identification, and Procedures in Public Schools	3
SPSY 3433	Disruptive Behavior in Public Schools: ADHD and ODD	3
SPSY 3513	Behavior Management for Teachers of Diverse Learners	3
or SPED 4753	Multi-tiered Classroom and Behavior Management	
SPSY 3523	Public School Support Specialist for Children At-Risk	3
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Secondary Education: English - Alternative Certification, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II [1]	
ENGL 1413	Critical Analysis and Writing II [1]	
ENGL 3323	Technical Writing [1]	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Minimum grade of "C" or "P" in each course		
ENGL 2453	Introduction to Film and Television (H) [1]	3
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH) [1]	3
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Suggested (in consultation with advisor for this area):		
SOC 4383	Social Stratification (S)	
or SOC 3133	Racial and Ethnic Relations (DS)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
May be paired with another designated course		
Additional General Education		
Minimum grade of "C" or "P" in each course		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
SPCH 2713	Introduction to Speech Communication (S) [1]	3
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		2
Recommended:		
PHIL 1313	Logic and Critical Thinking (Q)	
or PHIL 3003	Symbolic Logic (Q)	
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
CIED 4133	Introduction to K-12 English Language Learners	3
Select 4 hours of electives (3 hours may need to be foreign language)		4
Hours Subtotal		**9**
Major Requirements		
Minimum GPA 2.75 with a minimum grade of “C” or “P” in each course		
ENGL 2543	Survey of British Literature I (H)	3
ENGL 2653	Survey of British Literature II (H)	3
ENGL 2773	Survey of American Literature I (H)	3
ENGL 2883	Survey of American Literature II (DH)	3
ENGL 3183	Native American Literature (DH)	3
ENGL 3193	African-American Literature (DH)	3
ENGL 3203	Advanced Composition	3
ENGL 3243	Literary Theory and Criticism	3
ENGL 4013	English Grammar	3
ENGL 4723	Studies in Shakespeare (H)	3
ENGL 4320	Contemporary Literature	3
Select an ENGL 4000-level course in Literature before 1800		3
Recommended Courses:		
ENGL 4100	Studies in Medieval British Literature	
ENGL 4110	Studies in 16th Century British Literature	
ENGL 4120	Studies in 17th Century British Literature	
ENGL 4130	Studies in 18th Century British Literature	
ENGL 4600	Studies in Chaucer or Milton	
ENGL 4700	Single Author or Work Pre-1800	
Hours Subtotal		**36**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of “C’ or “P” in each course		
EDTC 3123	Applications of Educational Technologies	3
EPSY 3213	Psychology of Adolescence	3
SPED 3202	Educating Exceptional Learners	2
CIED 4313	Young Adult Literature	3
CIED 4194	Teaching Writing in the Secondary School	4
CIED 4473	Reading for the Secondary Teacher	3
CIED 4713	Teaching and Learning in the Secondary School	3
Select 14 Hours of CIED, LLCE, SMED, SPSY, SPED, EDUC		14

These hours could also be used towards the Special Education Minor (17), Public School Support Specialist for Children At-Risk (PSSC) Minor (15), Graduate Certificate Effective Teaching for Secondary Schools (12), Graduate Certificate for Effective Teaching in Elementary Schools (16)	
Hours Subtotal	**35**
Total Hours	**120**

[1]

Minimum GPA 2.50 required in combination with Major Requirements. Certification requirements that meet General Education requirements.

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.75 GPA in Major Requirements and specified general education courses; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of “C” or “P” in each course in the Major Requirements and Professional Core Requirements and must earn grades of “P” in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice-high level from among those languages identified by the Office of Educational Quality and Accountability.
- 10 hours in one foreign language is recommended for teaching emphasis area and for double major.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Secondary Education: English, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II [1]	
ENGL 1413	Critical Analysis and Writing II [1]	
ENGL 3323	Technical Writing [1]	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Minimum grade of "C" or "P" in each course		
ENGL 2773	Survey of American Literature I (H) [1]	3
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH) [1]	3
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Suggested (in consultation with advisor for this area):		
SOC 4383	Social Stratification (S)	
or SOC 3133	Racial and Ethnic Relations (DS)	
Diversity (D)		
ENGL 2883	Survey of American Literature II (DH) [1]	3
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Minimum grade of "C" or "P" in each course		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
SPCH 2713	Introduction to Speech Communication (S) [1]	3
Recommended:		
PHIL 1313	Logic and Critical Thinking (Q)	
or PHIL 3003	Symbolic Logic (Q)	
ENGL 2513	Introduction to Creative Writing (H)	
ENGL 2453	Introduction to Film and Television (H)	
LLCE 2003	American Stories: Diverse Peoples in YA Literature (DH)	
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
CIED 4133	Introduction to K-12 English Language Learners	3
Select 7 hours of electives		7
3 hours may need to be foreign language		
Hours Subtotal		**12**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of “C” or “P” in each course		
ENGL 2543	Survey of British Literature I (H)	3
ENGL 2653	Survey of British Literature II (H)	3
ENGL 3183	Native American Literature (DH)	3
ENGL 3193	African-American Literature (DH)	3
ENGL 3203	Advanced Composition	3
ENGL 4013	English Grammar	3
ENGL 4723	Studies in Shakespeare (H)	3
Select any ENGL 3000-level course		3
Recommended course		
ENGL 3243	Literary Theory and Criticism	
Select any ENGL 4000-level course		3
Recommended Courses:		
ENGL 4100	Studies in Medieval British Literature	
ENGL 4110	Studies in 16th Century British Literature	
ENGL 4120	Studies in 17th Century British Literature	
ENGL 4130	Studies in 18th Century British Literature	
ENGL 4600	Studies in Chaucer or Milton	
ENGL 4700	Single Author or Work Pre-1800	
Hours Subtotal		**27**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of “C’ or “P” in each course		
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4194	Teaching Writing in the Secondary School	4
CIED 4313	Young Adult Literature	3
CIED 4473	Reading for the Secondary Teacher	3
CIED 4713	Teaching and Learning in the Secondary School (Fall Semester prior to Student Teaching) [2]	3
EDTC 3123	Applications of Educational Technologies	3

EPSY 3213	Psychology of Adolescence	3
SCFD 3223	Role of Teacher in American Schools (D)	3
SPED 3202	Educating Exceptional Learners	2
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School (semester prior to Student Teaching) [2]	4
CIED 4720	Internship in the Secondary Classroom (Student Teaching) [2]	12
Hours Subtotal		**43**
Total Hours		**122**

1

Minimum GPA 2.50 required in combination with Major Requirements. Certification requirements that meet General Education requirements.

2

Full admission to Professional Education required.

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements and specified general education courses; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of "C" or "P" in each course in the Major Requirements and Professional Core Requirements and must earn grades of "P" in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice-high level from among those languages identified by the Office of Educational Quality and Accountability.
- 10 hours in one foreign language is recommended for teaching emphasis area and for double major.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH or STAT course designated (Q)		3
Course designated (N, L)		4
UNIV 1111	First Year Seminar	1
POLS 1113	American Government	3
1 credit elective		1
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
ENGL 2773	Survey of American Literature I (H)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 Hours General Education (S)		3
3 hours elective		3
	Hours	**15**
Sophomore		
Fall		
ENGL 2543	Survey of British Literature I (H)	3
ENGL 2883	Survey of American Literature II (DH)	3
SPCH 2713	Introduction to Speech Communication (S)	3
2 Hours General Education (Q, H, N, S, D, G, or F) Recommended: ENGL 2453, ENGL 2513, LLC 2003, PHIL 1313 or PHIL 3003		2
4 Hour Course designated (N)		4
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
ENGL 2653	Survey of British Literature II (H)	3
ENGL 2963	Survey of Postcolonial and Indigenous Literatures (GH)	3
CIED 4313	Young Adult Literature	3
ENGL 3203	Advanced Composition	3
SCFD 3223	Role of Teacher in American Schools (D)	3
SPED 3202	Educating Exceptional Learners	2
	Hours	**17**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4473	Reading for the Secondary Teacher	3
3 hours elective		3
ENGL 3183	Native American Literature (DH)	3
ENGL 4013	English Grammar	3
	Hours	**15**
Spring		
CIED 4194	Teaching Writing in the Secondary School	4
ENGL 4000-level course in Literature before 1800 (Suggested: ENGL 4100, 4110, 4120, 4130, 4600, 4700, [2]		3
ENGL 3193	African-American Literature (DH)	3
CIED 4133	Introduction to K-12 English Language Learners	3
ENGL 4723	Studies in Shakespeare (H)	3
	Hours	**16**
Senior		
Fall		
CIED 4713	Teaching and Learning in the Secondary School	3
EDTC 3123	Applications of Educational Technologies	3

CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
EPSY 3213	Psychology of Adolescence	3
3 Hours any ENGL 3000- level course (Recommended: ENGL 3243)		3
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	12
	Hours	**12**
	Total Hours	**122**

Secondary Education: Mathematics, BS

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II [1]	
ENGL 1413	Critical Analysis and Writing II [1]	
ENGL 3323	Technical Writing [1]	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1, 2]	4
CS 1103	Computer Programming (Q) [1, 2]	3
or CS 1113	Computer Science I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (HD)		3
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
Select 8 hours of electives		8
3 hours may need to be foreign language		
Hours Subtotal		**10**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course in the emphasis area and those with 1, 2 footnote.		
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
MATH 3013	Linear Algebra (Q)	3
MATH 3303	Advanced Perspectives on Secondary Mathematics	3
MATH 3613	Introduction to Abstract Algebra	3
MATH 3933	Introduction to Mathematical Research	3
MATH 4023	Introduction to Analysis	3
MATH 4403	Geometry	3
MATH 4663	Combinatorics	3
STAT 4013	Statistical Methods I (Q)	3
or STAT 4053	Statistical Methods I for the Social Sciences (Q)	
Select 3 hours of 4000-level MATH or STAT 4203 or CS 3653, excluding 0-ending or Thesis courses. MATH 4033 recommended.		3
Select 3 hours of 4000-level MATH or STAT or upper-division CS or PHYS		3
Hours Subtotal		**39**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4003	Teaching Fundamental Concepts of Mathematics [3]	3
SMED 4023	Advanced Field Placement in Mathematics and Science [3]	3
SMED 4053	Teaching Geometry in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
SPED 3202	Educating Exceptional Learners	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4133	Introduction to K-12 English Language Learners	3

CIED 4720	Internship in the Secondary Classroom [3]	6
Hours Subtotal		**31**
Total Hours		**120**

1

Minimum grade of "C"

2

Included in the Major Requirements when calculating Major GPA

3

Full admission to Professional Education required

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements and specified general education courses; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of “C” or “P” in each course in the Major Requirements and Professional Core Requirements and must earn grades of “P” in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice high level from among those languages identified by the Office of Educational Quality and Accountability. For clarification see OSU academic advisor. This proficiency can be demonstrated by presenting a high school transcript which demonstrates two years of study of a single foreign language with grades of “B” or better. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Students whose primary language is other than English may document proficiency in English as their second language with a score of 550 or more on the Test of English as a Foreign Language. Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH 2144	Calculus I (Q)	4
Course designated (DH)		3
SMED 1012	Inquiry Approaches to Teaching	2
UNIV 1111	First Year Seminar	1
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (S)		3
MATH 2153	Calculus II (Q)	3
CS 1103 or CS 1113	Computer Programming (Q) or Computer Science I (Q)	3
	Hours	**15**
Sophomore		
Fall		
Elective or Foreign Language		
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (Q)	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
EDHS 3111	Preparing for Your Future Career	1
SPED 3202	Educating Exceptional Learners	2
3 hours General Education (G)		3
	Hours	**16**
Spring		
SMED 3013	Knowing and Learning in K-12 Education	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Elective or Foreign Language		
MATH 2233	Differential Equations	3
MATH 3613	Introduction to Abstract Algebra	3
3 Hours General Education (H)		3
	Hours	**16**
Junior		
Fall		
MATH 3303	Advanced Perspectives on Secondary Mathematics	3
STAT 4013 or STAT 4053	Statistical Methods I (Q) or Statistical Methods I for the Social Sciences (Q)	3
Select 3 hours of 4000-level or higher MATH or STAT 4203 or CS 3653, excluding 0-ending or Thesis courses.		3
3 hours elective		3
CIED 3313	Field Experience in the Secondary Schools	3
	Hours	**15**

Spring		
SMED 4003	Teaching Fundamental Concepts of Mathematics	3
MATH 3933	Introduction to Mathematical Research	3
MATH 4663	Combinatorics	3
Course designated (Q, H, N, S, D, G or F)		3
Select 3 hours of 4000-level MATH or STAT or upper-division CS or PHYS		3
CIED 4133	Introduction to K-12 English Language Learners	3
	Hours	**18**
Senior		
Fall		
SMED 4053	Teaching Geometry in the Secondary School	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
MATH 4403	Geometry	3
MATH 4023	Introduction to Analysis	3
3 hours Elective		3
	Hours	**15**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Secondary Education: Science, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II [1]	
ENGL 1413	Critical Analysis and Writing II [1]	
ENGL 3323	Technical Writing [1]	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one course from the following:		3
STAT 2013	Elementary Statistics (Q) [1, 2]	
STAT 4013	Statistical Methods I (Q) (Required for Physics Emphasis) [1, 2]	
Select one course from the following:		3
MATH 1813	Preparation for Calculus (Q) (required for Biology emphasis) [1, 2]	
MATH 2144	Calculus I (Q) (Required for Chemistry, Physics and Earth Science Emphasis) [1, 2]	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1, 2]	4
Select one of the following options:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1,2]	
BIOL 1114	Introductory Biology (LN) [1, 2]	
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
PHIL 3933	Creation and Evolution	3
CHEM 1515	Chemistry II (LN)	5
Select 0-11 hours of electives to total 120 credit hours for degree		0-11
3 hours may need to be foreign language		
Hours Subtotal		**10-21**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of “C” or “P” in each course in the emphasis area and those with a footnote of 1, 2.		
Select one area of emphasis: (p. 2249)		29-40
Hours Subtotal		**29-40**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of “C’ or “P” in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in K-12 Education	3
SMED 4023	Advanced Field Placement in Mathematics and Science [3]	3
SMED 4611	Authentic Research in the Science Classroom [3]	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach [3]	3
SMED 4713	Teaching and Learning Science in the Secondary School [3]	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education [3]	3
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4720	Internship in the Secondary Classroom [3]	6
SPED 3202	Educating Exceptional Learners	2
Hours Subtotal		**29**
Total Hours		**120**

1

Minimum grade of "C"

2

Included in the Major Requirements when calculating Major GPA

3

Full admission to Professional Education required

Areas of Emphasis
Biology (40 Hours)

Code	Title	Hours
Biology Emphasis Requirements		
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PBIO 1404	Plant Biology (LN)	4
Select 3 hours of upper-division PBIO coursework		3

Chemistry (32 Hours)

Code	Title	Hours
Chemistry Emphasis Requirements		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
CHEM 3353	Descriptive Inorganic Chemistry	3
or CHEM 3363	Bioinorganic Chemistry	
CHEM 3413	Physical Chemistry Applications	3
CHEM 4990	Undergraduate Research in Chemistry	2
or CHEM 4482	Chemical Research & Literature Review	
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
BIOC 3653	Survey of Biochemistry	3

Earth Science (39 Hours)

Code	Title	Hours
Earth Science Emphasis Requirements		
GEOL 1214	Introductory Geological Processes (LN)	4
or GEOL 1114	Physical Geology (LN)	
GEOL 1224	Evolution of the Earth (LN)	4
GEOL 2464	Rocks and Minerals	4
GEOL 2773	Introduction to Planetary Geology (N)	3
GEOL 3014	Structural Geology	4
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
GEOL 3503	Environmental Geology (N)	3
GEOL 4503	Introduction to Oceanography (N)	3
GEOG 3023	Climatology (N)	3
or GEOG 3033	Meteorology (N)	
ASTR 1023	Stars, Galaxies, Universe (N)	3
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	

Physics (29 Hours)

Code	Title	Hours
Physics Emphasis Requirements		
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHYS 3623	Modern Laboratory Methods II	3
PHYS 3713	Modern Physics	3
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements and specified general education courses; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of “C” or “P” in each course in the Major Requirements and Professional Core Requirements and must earn grades of “P” in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice high level from among those languages identified by the Office of Educational Quality and Accountability. For clarification see OSU academic advisor. This proficiency can be demonstrated by presenting a high school transcript which demonstrates two years of study of a single foreign language with grades of “B” or better. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Students whose primary language is other than English may document proficiency in English as their second language with a score of 550 or more on the Test of English as a Foreign Language. Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Biology

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
3 hours (DH)		3
CHEM 1314	Chemistry I (LN)	4
BIOL 1604	Animal Biology	4
POLS 1113	American Government	3
	Hours	**17**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
PHIL 3933	Creation and Evolution	3
3 Hour General Education H (H)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours General Education (S)		3
SPED 3202	Educating Exceptional Learners	2
	Hours	**17**
Junior		
Fall		
MICR 3033	Cell and Molecular Biology	3
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3
BIOL 3023	General Genetics	3
STAT 2013 or STAT 4013	Elementary Statistics (Q) or Statistical Methods I (Q)	3
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
BIOL 3204	Physiology	4
	Hours	**14**
Senior		
Fall		
BIOL 3034	General Ecology	4
SMED 4023	Advanced Field Placement in Mathematics and Science	3
3 hours upper division PBIO		3
SMED 4713	Teaching and Learning Science in the Secondary School	3
3 Hours General Education		3
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Chemistry

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**17**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1515	Chemistry II (LN)	5
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
3 Hours General Education (DH)		3
	Hours	**15**
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4

SPED 3202	Educating Exceptional Learners	2
POLS 1113	American Government	3
3 Hours Course Designated (H)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
CHEM 3153	Organic Chemistry II	3
SMED 3013	Knowing and Learning in K-12 Education	3
CHEM 3112	Organic Chemistry Laboratory	2
3 Hours General Education (S)		3
	Hours	**15**
Junior		
Fall		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 4990	Undergraduate Research in Chemistry	1
PHIL 3933	Creation and Evolution	3
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3
	Hours	**15**
Spring		
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3413	Physical Chemistry Applications	3
CHEM 4990	Undergraduate Research in Chemistry	1
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
CIED 4133	Introduction to K-12 English Language Learners	3
3 Hours Elective		3
	Hours	**17**
Senior		
Fall		
BIOC 3653	Survey of Biochemistry	3
STAT 4013 or STAT 2013	Statistical Methods I (Q) or Elementary Statistics (Q)	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
4 Hour Elective		4
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Physics

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**17**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
PHYS 2014	University Physics I (LN)	4
CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
SPED 3202	Educating Exceptional Learners	2
	Hours	**17**
Sophomore		
Fall		
PHYS 2114	University Physics II (LN)	4
MATH 2163	Calculus III	3
POLS 1113	American Government	3
3 Hours (H)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**14**
Spring		
MATH 2233	Differential Equations	3
3 Hours Elective		3
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours Course Designated (S)		3
BIOL 1113	Introductory Biology (N)	3
BIOL 1111	Introductory Biology Laboratory (LN)	1
	Hours	**16**
Junior		
Fall		
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
PHIL 3933	Creation and Evolution	3
3 Hours (G)		3
CIED 3313	Field Experience in the Secondary Schools	3
	Hours	**15**
Spring		
PHYS 3623	Modern Laboratory Methods II	3
STAT 4013	Statistical Methods I (Q)	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
3 Hours General Education (DS)		3
3 Hours Elective		3
	Hours	**16**
Senior		
Fall		
SMED 4023	Advanced Field Placement in Mathematics and Science	3
PHYS 3713	Modern Physics	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
5 Hours Electives		5
	Hours	**14**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**118**

Earth Science

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
GEOL 1214 or GEOL 1114	Introductory Geological Processes (LN) or Physical Geology (LN)	4
MATH 2144	Calculus I (Q)	4
	Hours	**15**
Spring		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
CHEM 1314	Chemistry I (LN)	4
GEOL 1224	Evolution of the Earth (LN)	4
ASTR 1023	Stars, Galaxies, Universe (N)	3
SPED 3202	Educating Exceptional Learners	2
	Hours	**16**
Sophomore		
Fall		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1515	Chemistry II (LN)	5
GEOL 2464	Rocks and Minerals	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
3 hour DH		3
POLS 1113	American Government	3
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
	Hours	**17**
Junior		
Fall		
GEOL 3014	Structural Geology	4
GEOL 2773	Introduction to Planetary Geology (N)	3
PHIL 3933	Creation and Evolution	3
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours Course Designated (G)		3
	Hours	**16**
Spring		
SMED 4611	Authentic Research in the Science Classroom	1
GEOL 3503	Environmental Geology (N)	3
GEOG 3023	Climatology (N)	3
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
3 Hours General Education (S)		3
3 Hours General Education (H)		3
	Hours	**16**
Senior		
Fall		
GEOL 4503	Introduction to Oceanography (N)	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
3 Hours Elective		3
STAT 2013 or STAT 4013	Elementary Statistics (Q) or Statistical Methods I (Q)	3
	Hours	**15**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Zoology

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
3 credits DH		3
CHEM 1314	Chemistry I (LN)	4
BIOL 1604	Animal Biology	4
POLS 1113	American Government	3
	Hours	**17**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
PHIL 3933	Creation and Evolution	3
3 Hours Course Designated (H)		3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**16**
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
BIOL 3104	Invertebrate Zoology	4
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours General Education (S)		3
SPED 3202	Educating Exceptional Learners	2
	Hours	**16**
Junior		
Fall		
BIOL 3023	General Genetics	3
MICR 3033	Cell and Molecular Biology	3
BIOL 3114	Vertebrate Zoology	4
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3
	Hours	**16**

Spring		
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
	Hours	**14**
Senior		
Fall		
BIOL 3034	General Ecology	4
STAT 4013 or STAT 2013	Statistical Methods I (Q) or Elementary Statistics (Q)	3
SMED 4023	Advanced Field Placement in Mathematics and Science	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
3 Hours Elective		3
	Hours	**16**
Spring		
CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3
	Hours	**9**
	Total Hours	**120**

Secondary Education: Social Studies - Alternative Education, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1483	American History to 1865 (H) [1]	3
POLS 1113	American Government [1]	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
HIST 1613	Western Civilization to 1500 (H) [1]	3
HIST 1623	Western Civilization after 1500 (H) [1]	3
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
GEOG 1113	Introduction to Cultural Geography (GS) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
CIED 4133	Introduction to K-12 English Language Learners	3
Select 7 hours of electives (3 hours may need to be foreign language)		7
Recommended:		
ANTH 3353	Cultural Anthropology (GS)	
CIED 4194	Teaching Writing in the Secondary School	
CIED 4313	Young Adult Literature	
CIED 4473	Reading for the Secondary Teacher	
EDHS 4110	Professional Education Seminar	
EPSY 4223	Psychological Foundations of Learning and Instruction	
Hours Subtotal		**12**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
Economics		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
Government		
Select 6 hours POLS (POLS 2013, POLS 2113 suggested)		6
Oklahoma History		
HIST 3703	Oklahoma History (DH)	3
Psychology		
PSYC 1113	Introductory Psychology (S)	3
Sociology		
SOC 1113	Introductory Sociology (S)	3
U.S. American History		
HIST 1493	American History Since 1865 (DH)	3
Select 6 upper-division hours of U.S. American HIST		6
Suggested courses:		
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
Areas		
Select one of the following areas:		12
World History and Geography Area		
Select 3 hours of upper-division World History		
Suggested courses:		
HIST 3403	East Asia to 1800 (H)	
HIST 3453	Colonial Latin America (H)	
HIST 3483	Reformation Europe, 1517-1648 (H)	
HIST 3503	Medieval Islamic History (H)	
Select 3 hours of Non-Western History (in addition to GEOG 1713/GLST 1713, which is required if this area is selected)		
GEOG 1713	Regions & Nations in Global Context (GS)	
or GLST 1713	Regions & Nations in Global Context (GS)	
Suggested courses:		
HIST 1713	Survey of Eastern Civilization (H)	
Select 3 hours of Cultural Geography		
Suggested courses:		
GEOG 3123	Urban Geography (S)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	
GEOG 3713	Exploring North America and Diversity (DS)	

Sociology/Psychology Area		
Select 6 hours of Sociology (3 hours must be upper division)		
Suggested courses:		
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 4383	Social Stratification (S)	
Select 6 hours of Psychology (3 hours must be upper-division)		
Suggested courses:		
PSYC 3013	Psychology of Motivation	
PSYC 3113	Comparative Psychology (N)	
Hours Subtotal		**42**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of "C' or "P" in each course		
EDTC 3123	Applications of Educational Technologies	3
EPSY 3213	Psychology of Adolescence	3
SPED 3202	Educating Exceptional Learners	2
CIED 4713	Teaching and Learning in the Secondary School	3
Select 15 Hours of CIED, LLCE, SMED, SPSY, SPED, EDUC		15
These hours could also be used toward the Special Education Minor (17), Public School Support Specialist for Children At-Risk Minor (15), Graduate Certificate in Effective Teaching for Secondary Schools (12), Graduate Certificate in Effective Teaching in Elementary Schools (16)		
Hours Subtotal		**26**
Total Hours		**120**

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of "C" or "P" in each course in the Major Requirements and Professional Core Requirements and specified courses in General Education.
- Students must demonstrate proficiency in a foreign language at the novice high level from among those languages identified by the Office of Educational Quality and Accountability.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Secondary Education: Social Studies, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1483	American History to 1865 (H) [1]	3
POLS 1113	American Government [1]	3
Quantitative Thought & Logical Reasoning (Q)		
MATH or STAT course designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
HIST 1613	Western Civilization to 1500 (H) [1]	3
HIST 1623	Western Civilization after 1500 (H) [1]	3
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		8
Exploring Society & Human Behavior (S)		
GEOG 1113	Introduction to Cultural Geography (GS) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 2 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 2 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		2
Hours Subtotal		**40**
College/Departmental Requirements		
Minimum grade of "C" or "P" in each course		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
EDHS 3111	Preparing for Your Future Career	1
CIED 4133	Introduction to K-12 English Language Learners	3
Select 7 hours of electives (3 hours may need to be foreign language)		7
Recommended:		
ANTH 3353	Cultural Anthropology (GS)	
CIED 4194	Teaching Writing in the Secondary School	
CIED 4313	Young Adult Literature	
CIED 4473	Reading for the Secondary Teacher	
EDHS 4110	Professional Education Seminar	
EPSY 4223	Psychological Foundations of Learning and Instruction	
Hours Subtotal		**12**
Major Requirements		
Minimum GPA 2.50 with a minimum grade of "C" in each course		
Economics		
ECON 2103	Introduction to Microeconomics (S)	3
ECON 2203	Introduction to Macroeconomics	3
Government		
Select 6 hours POLS (POLS 2013, POLS 2113 suggested)		6
Oklahoma History		
HIST 3703	Oklahoma History (DH)	3
Psychology		
PSYC 1113	Introductory Psychology (S)	3
Sociology		
SOC 1113	Introductory Sociology (S)	3
U.S. American History		
HIST 1493	American History Since 1865 (DH)	3
Select 6 upper-division hours of U.S. American HIST		6
Suggested courses:		
HIST 3613	American Colonial Period to 1750 (H)	
HIST 3623	Era of the American Revolution (H)	
HIST 3653	Civil War and Reconstruction, 1850-1877	
HIST 3673	United States History, 1919-45 (DH)	
HIST 3683	United States History Since 1945 (DH)	
Areas		
Select one of the following areas:		12
World History and Geography Area		
Select 3 hours of upper-division World History		
Suggested courses:		
HIST 3403	East Asia to 1800 (H)	
HIST 3453	Colonial Latin America (H)	
HIST 3483	Reformation Europe, 1517-1648 (H)	
HIST 3503	Medieval Islamic History (H)	
Select 3 hours of Non-Western History (in addition to GEOG 1713/GLST 1713, which is required if this area is selected)		
GEOG 1713	Regions & Nations in Global Context (GS)	
or GLST 1713	Regions & Nations in Global Context (GS)	
Suggested courses:		
HIST 1713	Survey of Eastern Civilization (H)	
Select 3 hours of Cultural Geography		
Suggested courses:		
GEOG 3123	Urban Geography (S)	
GEOG 3163	Economic Geography (S)	
GEOG 3173	Cultural Geography (S)	

GEOG 3713	Exploring North America and Diversity (DS)	
Sociology/Psychology Area		
Select 6 hours of Sociology (3 hours must be upper division)		
Suggested courses:		
SOC 3133	Racial and Ethnic Relations (DS)	
SOC 4383	Social Stratification (S)	
Select 6 hours of Psychology (3 hours must be upper-division)		
Suggested courses:		
PSYC 3013	Psychology of Motivation	
PSYC 3113	Comparative Psychology (N)	
Hours Subtotal		**42**
Professional Core Requirements		
Minimum GPA 2.50 with a minimum grade of "C' or "P" in each course		
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4713	Teaching and Learning in the Secondary School (Fall Semester prior to Student Teaching) [2]	3
EDTC 3123	Applications of Educational Technologies	3
EPSY 3213	Psychology of Adolescence	3
SCFD 3223	Role of Teacher in American Schools (D)	3
SPED 3202	Educating Exceptional Learners	2
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School (semester prior to Student Teaching) [2]	4
CIED 4720	Internship in the Secondary Classroom (Student Teaching) [2]	9
Hours Subtotal		**30**
Total Hours		**124**

1

Minimum GPA 2.50 required in combination with Major Requirements. Certification requirements that meet General Education requirements.

2

Full admission to Professional Education required.

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements; and
  c. 2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of "C" or "P" in each course in the Major Requirements and Professional Core Requirements and specified courses in General Education; and must earn grades of "P" in all sections of observation courses and student teaching for recommendation for Certification.
- Students must demonstrate proficiency in a foreign language at the novice high level from among those languages identified by the Office of Educational Quality and Accountability.
- For teacher certification, students must successfully complete OSAT (017), "U.S. History/OK History/Government/Economics".
- Students may also take OSAT (018), World History/Geography" and/or OSAT (032) "Psychology/Sociology" to add additional certification areas.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Psychology/Sociology Option

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
UNIV 1111	First Year Seminar	1
HIST 1483	American History to 1865 (H)	3
MATH or STAT course Designated (Q)		3
POLS 1113	American Government	3
GEOG 1113	Introduction to Cultural Geography (GS)	3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
HIST 1493	American History Since 1865 (DH)	3
SOC 1113	Introductory Sociology (S)	3
Course Designated (N, L)		4
Course designated (D)		3
	Hours	**16**
Sophomore		
Fall		
Elective or Foreign Language [1]		3
HIST 1613	Western Civilization to 1500 (H)	3
PSYC 1113	Introductory Psychology (S)	3
ECON 2103	Introduction to Microeconomics (S)	3
Course designated (Q), (H), (N), (S), (D), (G), or (F)		2
EDHS 3111	Preparing for Your Future Career	1
	Hours	**15**
Spring		
ECON 2203	Introduction to Macroeconomics	3
HIST 1623	Western Civilization after 1500 (H)	3

SCFD 3223	Role of Teacher in American Schools (D)	3
3 Hours of POLS (suggested: POLS 2013)		3
Course designated (N)		4
	Hours	**16**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours of Psychology		3
3 Hours of Upper-Division U.S. American HIST (Suggested: HIST 3613, HIST 3623, HIST 3653, HIST 3673, HIST 3683)		3
3 Hours POLS (Suggested: POLS 2113)		3
EDTC 3123	Applications of Educational Technologies	3
3 Hours Sociology (SOC)		3
	Hours	**18**
Spring		
3 Hours of Upper-Division Psychology (Suggested: PSYC 3013, PSYC 3113)		3
SPED 3202	Educating Exceptional Learners	2
3 Hours U.S. American HIST (Suggested: HIST 3613, HIST 3623, HIST 3653, HIST 3673, HIST 3683)		3
CIED 4133	Introduction to K-12 English Language Learners	3
HIST 3703	Oklahoma History (DH)	3
3 Hours Upper-Division Sociology (Suggested: SOC 3133, SOC 4383		3
	Hours	**17**
Senior		
Fall		
CIED 4713	Teaching and Learning in the Secondary School	3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
EPSY 3213	Psychology of Adolescence	3
3 Hours General Education (G)		3
4 hours elective		4
	Hours	**17**
Spring		
CIED 4720	Internship in the Secondary Classroom	9
	Hours	**9**
	Total Hours	**124**

1

Foreign language requirement met upon completion of CIED 4133. Any additional foreign language credits can be electives.

World History/Cultural Geography

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
UNIV 1111	First Year Seminar	1
HIST 1483	American History to 1865 (H)	3
MATH or STAT course Designated (Q)		3
POLS 1113	American Government	3
GEOG 1113	Introduction to Cultural Geography (GS)	3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
HIST 1493	American History Since 1865 (DH)	3
Course Designated (N, L)		4
3 hours General Education (D)		3
SOC 1113	Introductory Sociology (S)	3
	Hours	**16**
Sophomore		
Fall		
Elective or Foreign Language [1]		
HIST 1613	Western Civilization to 1500 (H)	3
3 hours of Non-Western History (Suggested: HIST 1713)		3
PSYC 1113	Introductory Psychology (S)	3
Course designated (Q), (H), (N), (S), (D), (G), or (F)		2
ECON 2103	Introduction to Microeconomics (S)	3
EDHS 3111	Preparing for Your Future Career	1
	Hours	**15**
Spring		
ECON 2203	Introduction to Macroeconomics	3
HIST 1623	Western Civilization after 1500 (H)	3
3 Hours of POLS (suggested: POLS 2013)		3
Course Designated (N)		4
SCFD 3223	Role of Teacher in American Schools (D)	3
	Hours	**16**
Junior		
Fall		
CIED 3313	Field Experience in the Secondary Schools	3
GEOG 1713 or GLST 1713	Regions & Nations in Global Context (GS) or Regions & Nations in Global Context (GS)	3
3 hours of Upper-Division U.S. American HIST (Suggested: HIST 3613, HIST 3623, HIST 3653, HIST 3673, HIST 3683)		3
3 Hours Cultural Geography (Suggested: GEOG 3123, 3163, 3173, or 3713		3
EDTC 3123	Applications of Educational Technologies	3
3 Hours POLS (Suggested: POLS 2113)		3
	Hours	**18**
Spring		
SPED 3202	Educating Exceptional Learners	2
3 hours Upper-Division U.S. American HIST (Suggested: HIST 3613, HIST 3623, HIST 3653, HIST 3673, HIST 3683)		3
3 Hours Upper-Division World History (Suggested: HIST 3403, 3453, 3483, or 3503)		3
HIST 3703	Oklahoma History (DH)	3
3 Hours General Education (G)		3
CIED 4133	Introduction to K-12 English Language Learners	3
	Hours	**17**
Senior		
Fall		
CIED 4713	Teaching and Learning in the Secondary School	3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
EPSY 3213	Psychology of Adolescence	3
3 hours elective		3
4 hours elective		4
	Hours	**17**
Spring		
CIED 4720	Internship in the Secondary Classroom	9
	Hours	**9**
	Total Hours	**124**

1

Foreign language requirement met upon completion of CIED 4133. Any additional foreign language credits may be electives.

Special Education (SPED), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Candace Schell, School of Teaching, Learning and Educational Sciences, 225 Willard, (405) 744-7125

Minimum Overall Grade Point Average: 2.50 with no grade below "C" in SPED courses to be awarded the SPED minor.
Total Hours: 17

Code	Title	Hours
SPED 3202	Educating Exceptional Learners (D)	2
SPED 3623	Characteristics of Students with Mild/ Moderate Disabilities	3
SPED 3683	Models of Instruction in the Inclusive Classroom	3
SPED 3743	Planning, Compliance, and Current Practices in SPED	3
SPED 4723	Transition Into Adulthood for Individuals with Disabilities	3
SPED 4753	Multi-tiered Classroom and Behavior Management	3
Total Hours		**17**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Special Education, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50 with no grade below "C" in SPED courses to be awarded the SPED Certificate.
Total Hours: 17

Code	Title	Hours
SPED 3202	Educating Exceptional Learners (D)	2
SPED 3623	Characteristics of Students with Mild/ Moderate Disabilities	3
SPED 3683	Models of Instruction in the Inclusive Classroom	3
SPED 3743	Planning, Compliance, and Current Practices in SPED	3
SPED 4723	Transition Into Adulthood for Individuals with Disabilities	3
SPED 4753	Multi-tiered Classroom and Behavior Management	3
Total Hours		**17**

COLLEGE OF ENGINEERING, ARCHITECTURE AND TECHNOLOGY

College Administration

Hanchen Huang, PhD—Dean, Professor, Donald & Cathey Humphreys Chair
Charles F. Bunting, PhD—Associate Dean for Research, Professor, Henry Bellmon Chair
Ed Kirtley, PhD—Associate Dean of Engineering Extension, Professor of Professional Practice
Carisa Ramming, PE—Associate Dean of Academic Programs and Student Engagement, Professor, Halliburton Professorship in Engineering
Raman P. Singh, PhD—Associate Dean for Engineering, OSU-Tulsa, Director, Helmerich Research Center, Director EPSCoR, Professor, Helmerich Chair
John Veenstra, PhD—Associate Dean for Faculty Affairs, Professor

Campus Address and Phone

Address: 201 Advanced Technology Research Center, Stillwater, OK 74078
Phone: 405-744-5140
Website: https://ceat.okstate.edu/

The vision of the College of Engineering, Architecture and Technology (CEAT) is to be the leading public university in engineering, architecture, and engineering technology that engages diverse students, faculty and staff with industry and government to deliver excellence in advanced learning, leadership, relevant research, and benefits to society.

Our mission is to provide students with the highest quality education in engineering, architecture and technology. OSU develops ethical leaders with technical knowledge, innovation, and communication skills to benefit the State of Oklahoma, the nation and the world.

The College of Engineering, Architecture and Technology is a community of scholars, innovators and leaders that is transforming our lives. The preparation of professionals that anticipate the needs of a changing world is at the nexus of society, economy, ethics, sustainability, and humanity. The College is committed to educating professionals who innovate, design and build projects that provide solutions for both the developed and the developing world.

CEAT embraces students from diverse backgrounds to imagine and discover the challenges of engineering, architecture and technology, and to bring about innovation using their proficiency in science, mathematics, communications, ethics, and humanity. This mission is built on the foundation of the University's mission and the expectations of a world class university.

As Oklahoma's land-grant university, CEAT fulfills the most fundamental premise that founded OSU; to promote economic and community viability through technical assistance, academic and professional education, training, and communication in the areas of engineering, architecture and engineering technology, and by connecting scientific research and scholarship to industry, communities, and individual citizens in Oklahoma, the region and the world.

As we progress into the future, professionals with higher education will continue to be largely responsible for shaping our world. The power they exercise is an exciting prospect and presents a sobering responsibility. Less complex problems have been solved and are now a part of history. Many difficult problems remain. The need for talented and highly educated professionals is obvious; one will be embarking on a lifetime of challenge as they prepare for a career in engineering, engineering technology or architecture at Oklahoma State University.

The College of Engineering, Architecture and Technology offers a complete spectrum of educational opportunities at both the undergraduate and graduate level designed to give graduates the capability and flexibility to meet the ever-changing needs of a society that is committed to technological innovation. To make continuing contributions, engineers, architects, and engineering technologists must have many abilities at their command. The modern tools and processes of industry must be understood. The processes of design and analysis require a firm understanding of mathematics and the sciences. An effective engineer, architect or engineering technologist must develop sensitivity to human needs, ideas, institutions, and cultures. These programs prepare graduates to be effective contributors within human organizations and provide an increased understanding of both the technical and non-technical factors that shape our human environment. With this firm foundation, and a commitment to lifelong learning, CEAT graduates are fully prepared to make contributions to society throughout their professional careers.

The curriculum in each program provides the optimum combination of breadth in the enduring fundamentals and specialization in a discipline. Each curriculum sensitizes the student to ethical, social, cultural, and global issues that will shape their ideas and contributions. To equip the student to contribute to solutions at the cutting edge of technology, curricula are continuously evolving to include current applications of the principles. Through the combination of theory, practice and improved sensitivity to diverse issues, graduates will be prepared to support their interests while positively contributing to the advancement of technology and the world.

Academic Programs

Academic programs offered in the College of Engineering, Architecture and Technology culminate in the following degrees:

Engineering

- Bachelor of Architecture, Bachelor of Architectural Engineering with options in Structures and Construction Project Management, Bachelor of Science in Aerospace Engineering; Biosystems Engineering with options in Bioprocessing and Food Processing, Environment and Natural Resources, Machine Systems and Agricultural Engineering, and Pre-Medical; Chemical Engineering with options in Biomedical/Biochemical and Pre-Medical; Civil Engineering with an option in Environmental; Computer Engineering with an option in Software Engineering; Electrical Engineering; Industrial Engineering and Management; and Mechanical Engineering with options in Fire Protection Systems, Petroleum and Pre-Medical.
- Undergraduate Minors in Data Analytics for Engineers, Environmental Engineering, Nuclear Engineering, and Petroleum Engineering.
- Master of Science in Biosystems Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Engineering and Technology Management, Industrial Engineering and Management with options in Operations Research and Analytics and Supply Chain Logistics, Materials Science and Engineering, Mechanical and Aerospace Engineering with an option in Unmanned Aerial Systems, and Petroleum Engineering.

- Master of Engineering in Electrical Engineering, Materials Science and Engineering, and Mechanical Engineering.
- Graduate certificates in Engineering and Technology Management, Supply Chain and Logistics.
- Doctor of Philosophy in Biosystems Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering and Management, Materials Science and Engineering, Mechanical and Aerospace Engineering, and Petroleum Engineering.

Architecture

- Bachelor of Science in Architectural Design Studies with options in Design Management and Leadership, Design Thinking and Communication, and Design, Culture and Urban Studies.
- Undergraduate minors in Architectural Studies: Architecture and Entrepreneurship, Architectural Studies: Design, and Architectural Studies: History and Theory.
- Graduate Certificate in Integrative Design of Building Envelope.

Engineering Technology

- Bachelor of Science in Engineering Technology in Construction Engineering Technology with options in Building and Heavy/Highway, Electrical Engineering Technology (EET) with a Computer option, Fire Protection and Safety Engineering Technology, Mechanical Engineering Technology (MET), and Mechatronics and Robotics (MERO).
- Undergraduate minors in Construction, Emergency Management, Mechatronic Engineering Technology for EET students, Mechatronic Engineering Technology for MET students, and Safety and Exposure Sciences.
- Master of Science in Engineering Technology with options in Fire Safety and Explosion Protection and Mechatronics and Robotics.
- Master of Science in Fire and Emergency Management Administration.
- Doctor of Philosophy in Fire and Emergency Management Administration.

Accreditation

UNDERGRADUATE ENGINEERING DEGREE PROGRAMS

The following OSU College of Engineering, Architecture and Technology programs are individually accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

- Aerospace Engineering
- Architectural Engineering
- Biosystems Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering & Management
- Mechanical Engineering

UNDERGRADUATE ENGINEERING TECHNOLOGY DEGREE PROGRAMS

The following OSU College of Engineering, Architecture and Technology programs are individually accredited by the Engineering Technology Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/).

- Construction Engineering Technology (BS in Engineering Technology)
- Electrical Engineering Technology (BS in Engineering Technology)
- Fire Protection and Safety Engineering Technology (BS in Engineering Technology)
- Mechanical Engineering Technology (BS in Engineering Technology)

UNDERGRADUATE ARCHITECTURE DEGREE PROGRAM

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the non-accredited degree is not, by itself, recognized as an accredited degree.

The Oklahoma State University School of Architecture offers the following NAAB-accredited degree programs:

B. Arch. (154 undergraduate credits)

Next accreditation visit: 2025, http://www.naab.org/.

High School Preparation

In addition to the curricular requirements for admission specified by OSU, the College of Engineering, Architecture and Technology strongly recommends that students have a fourth year of mathematics and an additional year of laboratory science.

Initial placement in OSU mathematics courses is by placement examination to ensure that each student will be challenged but has the preparation to be successful in the first mathematics course. Placement in science courses is based on prior preparation in the science and completion of or placement beyond prerequisite mathematics courses. When appropriate, a student with an exceptionally strong background can obtain academic credit by advanced standing examination or by College Level Examination Program (CLEP) tests or similar.

Special College Programs

CEAT Living Learning Program (LLP): In partnership with OSU Housing & Residential Life, a Living Learning Program (LLP) has been established by CEAT within Parker Hall. Parker Hall is a traditional-style residential facility with rooms for female students on the 2nd floor and rooms for male students on the 3rd – 5th floors. Rooms in Parker Hall are reserved for first-year CEAT students and provide an immersive environment to help them succeed in CEAT and at OSU. Special programming is provided, and upper-class mentors live on each of the floors. The CEAT In-Residence program allows a CEAT representative, currently a PhD student and graduate research assistant studying Chemical Engineering, to live on the ground floor of Parker Hall and provide inspiration and mentorship to students. All Living Learning Programs provide an atmosphere that is conducive to study. Students experience a community where they can work together, have access to tutoring and other services, and serve as role models for other students. Special activities are planned for the floors, including events with faculty and other leaders. They are highly recommended for student success in CEAT. The application

process for OSU LLPs begins on October 1st. https://ceat.okstate.edu/studentservices/living-learning-parker.html

CEAT Summer Bridge Program: Summer Bridge is a three-week residential, on-campus, preparatory program for incoming first-year students majoring in engineering, architecture, or technology. The program is designed to guide students as they transition from high school to the academic rigors of CEAT and OSU coursework through academic math preparatory tracks, mock exams, orientation seminars and engineering design projects. Participants build relationships with peers, faculty and staff, and start the process of building strong study habits with the assistance of CEAT upperclassmen as mentors. CEAT Summer Bridge participants are required to live in Parker Hall. Summer Bridge participants receive academic credit for their UNIV 1111 (First-Year Experience) requirement. https://ceat.okstate.edu/studentservices/summer-bridge-program.html

Discover Architecture Program: Discover Architecture introduces high school students to Architecture, Architectural Engineering, Landscape Architecture, and Construction Engineering Technology. This week-long summer program has academic projects that are designed to stimulate creativity and be fun! Participants live in campus housing; complete projects that include the application of sketching and designing in model, using computer presentation tools; and participate in several hands-on building projects to help students understand if a career in the building arts might be right for them. The program is offered by Oklahoma State University faculty at the Stillwater campus for students who are at least 16 years of age. https://ceat.okstate.edu/arch/discover-architecture.html

CEAT Scholars Program: The CEAT Scholars Program provides educational experiences for a select group of students to develop and enhance their technical competence, worldview, professional and public responsibility, and leadership skills. Based on demonstrated academic and leadership potential, up to 100 scholars are selected each year through an application and interview process, to enter this four-year program. Students participate in special lectures, regional tours, cultural events, seminars, personal development activities, faculty mentoring, and international travel. https://ceat.okstate.edu/scholarships/ceat_scholars_program.html

CEAT Freshman Research Scholars Program: This program provides opportunities for accelerated intellectual development through engaging in undergraduate research right away for a select group of students. Each student is assigned a research faculty mentor and participates in a research project. The initial assignment is for one year and may be extended based on student interest, research project continuation and mentor availability. https://scholardevelopment.okstate.edu/freshman-research-scholars/prospective-freshman-researchers (https://scholardevelopment.okstate.edu/freshman-research-scholars/prospective-freshman-researchers/)

W.W. Allen Scholars Program: The W.W. Allen Scholars Program is the premier scholarship program within CEAT and is designed for top-performing students who also show significant promise in their leadership experience and career ambition. The program is highlighted by the opportunity to pursue a master's degree at the University of Cambridge in the United Kingdom following graduation from OSU. Two incoming first-year students are selected annually through an extensive application and interview process. https://ceat.okstate.edu/scholarships/w-w-allen-scholars-program.html

W.W. Allen Boys & Girls Club Scholarship Program: The W.W. Allen Boys and Girls Club Scholars Program (BGC Scholars) at OSU awards an incoming freshman an OSU tuition waiver plus an annual CEAT Scholarship of $15,000 for up to four years of study toward a BS degree in engineering. Additionally, each scholar will participate in funded enrichment, travel, and networking opportunities. One incoming first-year student is selected annually through an application and interview process. https://ceat.okstate.edu/scholarships/scholar-programs/ww-allen-boys-and-girls-club-program.html

CEAT Tutoring: CEAT provides free tutoring led by peers for most required Math, Physics, Chemistry, Computer Science and Engineering core courses. https://ceat.okstate.edu/studentservices/tutoring.html

CEAT Career Services: CEAT's Career Services team is dedicated to helping students reach their career goals by providing individualized career assistance, specialized workshops, and resources on a variety of topics including career exploration, job search strategies, resume and job search correspondence preparation, interviewing skills, and salary negotiation. The office also supports the Cooperative Education Program (Co-op) and provides individual career assessments for undergraduate students. As part of the OSU Career Services system, CEAT Career Services works in close partnership with CEAT Student Academic Services to link academic and career success. https://ceat.okstate.edu/studentservices/career-services/index.html (https://ceat.okstate.edu/studentservices/career-services/)

CEAT Cooperative Education Program: Cooperative Education programs, also known as a co-op, provide an avenue for undergraduate students to complete a year of full-time work experience directly related to their academic studies. Co-op students alternate terms of major-related employment with terms of full-time coursework to achieve a quality education and industry experience. In addition to professional development, participation in the Co-op program earns academic credit and maintains full-time enrollment status for students during the work experience terms. https://ceat.okstate.edu/studentservices/career-services/coop-faq.html

CEAT Study Abroad Programs: Studying abroad within CEAT offers students the opportunity to expand their education by traveling and studying outside the United States. Opportunities range from short-term faculty-led programs to semester exchange opportunities. https://ceat.okstate.edu/studyabroad/

Departmental Clubs and Honor Societies

Alpha Epsilon (Biosystems and Agricultural Engineering Honor Society)
Alpha Omega Epsilon (Professional and Social Sorority for Women in Engineering)
Alpha Pi Mu (Industrial Engineering and Management Honor Society)
Alpha Rho Chi (Architecture Honor Society)
The Almighty S(he)
Amateur Radio Club - W5YJ
American Association of Drilling Engineers
American Indian Science and Engineering Society
American Institute of Architecture Students
American Institute of Aeronautics & Astronautics
American Institute of Chemical Engineers
American Society for Quality
American Society of Agricultural and Biological Engineers
American Society of Civil Engineers
American Society of Heating, Refrigeration and Air Conditioning Engineers
American Society of Mechanical Engineers
American Society of Mechanical Engineers - Technology

American Society of Safety Engineers
APICS
Association for Supply Chain Management
Architectural Engineering Institute
Architecture Students Teaching Elementary Kids (ASTEK)
CEAT Solvers
CEAT Student Council
CHEM Kidz
Chi Epsilon (Civil and Architectural Engineering Honor Society)
Concrete Canoe
Construction Management Society
Construction Specifications Institute
Cowboy Motorsports Quarter Scale Tractor Team
Cowboy Waterworks
Engineers Without Borders
Eta Kappa Nu (Electrical and Computer Engineering Honor Society)
Firefighter Combat Challenge
Fire Protection Society
Freedom by Design
Institute for Operations Research and the Management Sciences
Institute of Electrical and Electronics Engineers (IEE)
Institute of Electrical and Electronics Engineers - Technology (IEE-T)
Institute of Industrial and Systems Engineers
Institute of Transportation Engineers
International Fluid Power Society
International Society for Automation
Mercury Robotics
National Society of Black Engineers
National Organization of Minority Architecture Students
Omega Chi Epsilon (Chemical Engineering Honor Society)
Out in Science, Technology, Engineering, and Mathematics (oSTEM)
OSU Automation Society
Pi Tau Sigma (Honorary Mechanical Engineering Society)
Sigma Gamma Tau (Honorary Aerospace Engineering Society)
Sigma Lambda Chi (Construction Engineering Technology Honor Society)
Society of Asian Scientists and Engineers
Society of Automotive Engineers
Society of Automotive Engineers Formula Racing Team
Society of Automotive Engineers Mini-Baja Team
Society of Fire Protection Engineers
Society of Hispanic Professional Engineers
Society of Petroleum Engineers
Society of Manufacturing Engineers
Society of Women Engineers
Student Association of Fire Investigators
Student Firefighter Combat Challenge Team
Tau Alpha Pi (Technology Students Honor Society)
Tau Beta Pi (Engineering Students Honor Society)
Tau Sigma Delta (Architecture Students Honor Society)
Theme Park Engineering Group
Theta Tau
Transitioning Equity and Diversity into Engineering

CEAT Honors Program

The OSU Honors College provides challenges for undergraduate students of unusually high ability, motivation and initiative. Honors classes, seminars and independent study courses are designed to align students and instructors in a manner that encourages discussion and provides a mature approach to learning.

Information regarding The Honors College at OSU, and Scholar Development/Leadership Programs can be found on the Honors College tab in the left menu.

Scholarships

Numerous CEAT scholarships are funded through the generosity of private donations made by alumni, industry partners and other friends of the College. Awards are available for undergraduate and graduate students at all levels and are granted based on academic achievement, campus involvement and leadership potential, as well as financial need. First-year and undergraduate transfer students are automatically considered for most CEAT scholarships, based off the student's eligibility through their OSU application and acceptance to OSU. For priority scholarship consideration students should apply and be accepted to OSU by November 1. Students must be accepted by Feb. 1 for all other scholarship considerations. All CEAT scholarships are awarded on a competitive basis. Some scholarships require additional applications. Details can be found at https://ceat.okstate.edu/scholarships/index.html (https://ceat.okstate.edu/scholarships/).

Current undergraduate (continuing) students should submit applications for general CEAT scholarships beginning on December 1 through their student portal in SLATE.

Computing Requirements

For students in engineering, architecture and technology, the college requires all students have access to several basic tools. Students in the college must have a scientific calculator and a laptop computer. The scientific calculator should be capable of computing trigonometric functions, logarithmic and natural logarithmic functions, basic statistical analysis, and all algebraic functions. Laptop requirements are published at https://ceat.okstate.edu/itservices/.

Academic Advising

Academic Advising for all first-year students, and some transfer students, is provided by the Office of Student Success. Student Success advisors are well-equipped to support students navigating their CEAT degrees. Each student is personally advised in the planning and scheduling of their coursework, assisted with the selection of a major, and is advised individually on matters of career choice, activities at OSU and other academic matters. Each CEAT student and their advisor carefully select general education, core engineering or architecture courses, and elective courses to meet the curriculum objectives and accreditation criteria. To assist students in planning and mapping their academic success, an electronic account is created for each student at the time of initial enrollment. Students have access to their personal account, via the SLATE System, where they can review their advising materials, degree sheet, flowchart and other documents. The advisor assists the student with academic decisions and works to ensure accuracy and compliance; however, the ultimate responsibility for meeting degree requirements rests with the student. Learn more about the Office of Student Success here: https://success.okstate.edu/.

After the first year, students are advised by CEAT's Office of Student Academic Services (https://ceat.okstate.edu/studentservices/) where they continue to receive one-one-one advising and coaching to meet the needs of their academic experience and undergraduate degree.

Academic Areas

- Biosystems and Agricultural Engineering (p. 2267)
- Chemical Engineering (p. 2277)
- Civil and Environmental Engineering (p. 2297)
- Electrical and Computer Engineering (p. 2323)
- Fire, Construction and Emergency Management (p. 2353)
- Industrial Engineering and Management (p. 2377)
  - Engineering and Technology Management (p. 2348)
- Materials, Mechatronics and Manufacturing Engineering (p. 2392)
- Mechanical and Aerospace Engineering (p. 2416)
- School of Architecture (p. 2446)

CEAT Dean's Office and CEAT Online Learning (p. 2275)

Undergraduate Programs

- Aerospace Engineering, BSAE (p. 2436)
- Architectural Design Studies: Design Management and Leadership, BS (p. 2459)
- Architectural Design Studies: Design Thinking and Communication, BS (p. 2461)
- Architectural Design Studies: Design, Culture and Urban Studies, BS (p. 2463)
- Architectural Engineering: Construction Project Management, BEN (p. 2465)
- Architectural Engineering: Structures, BEN (p. 2467)
- Architecture, BAR (p. 2472)
- Biosystems Engineering: Bioprocessing & Food Processing, BSBE (p. 2590)
- Biosystems Engineering: Biosystems Engineering, BSBE (p. 2592)
- Biosystems Engineering: Environmental and Natural Resources, BSBE (p. 2594)
- Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE (p. 2596)
- Biosystems Engineering: Pre-Medical, BSBE (p. 2598)
- Chemical Engineering, BSCH (p. 2290)
- Chemical Engineering: Biomedical/Biochemical, BSCH (p. 2292)
- Chemical Engineering: Pre-Medical, BSCH (p. 2294)
- Civil Engineering, BSCV (p. 2318)
- Civil Engineering: Environmental, BSCV (p. 2320)
- Computer Engineering, BSCP (p. 2341)
- Computer Engineering: Software Engineering, BSCP (p. 2343)
- Construction Engineering Technology: Building, BSET (p. 2367)
- Construction Engineering Technology: Heavy, BSET (p. 2369)
- Electrical Engineering Technology, BSET (p. 2406)
- Electrical Engineering Technology: Computer, BSET (p. 2408)
- Electrical Engineering, BSEE (p. 2346)
- Fire Protection and Safety Engineering Technology, BSET (p. 2373)
- Industrial Engineering and Management, BSIE (p. 2389)
- Mechanical Engineering Technology, BSET (p. 2410)
- Mechanical Engineering, BSME (p. 2438)
- Mechanical Engineering: Fire Protection Systems, BSME (p. 2440)
- Mechanical Engineering: Petroleum, BSME (p. 2442)
- Mechanical Engineering: Pre-Medical, BSME (p. 2444)
- Mechatronics and Robotics, BS (p. 2414)

Graduate Programs

- Biosystems Engineering, MS/PhD (p. 2273)
- Chemical Engineering, MS/PhD (p. 2288)
- Civil Engineering, MS/PhD (p. 2316)
- Electrical Engineering, MEN/MS/PhD (p. 2338)
- Engineering and Technology Management, Graduate Certificate/MS (p. 2348)
- Engineering Technology: Mechatronics & Robotics, MS (p. 3202)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 2364)
- Environmental Engineering, MS (http://catalog.okstate.edu/graduate-college/masters-degrees/environmental-engineering-ms/)
- Fire and Emergency Management Administration, MS/PhD (p. 2364)
- Industrial Engineering and Management, MS/PhD (p. 2386)
- Integrative Design of Building Envelope, Graduate Certificate (p. 3110)
- Materials Science and Engineering, MEN/MS/PhD (p. 2404)
- Mechanical and Aerospace Engineering, MEN/MS/PhD (p. 2434)
  - Unmanned Aerial Systems MS (p. 3276)
- Petroleum Engineering, MS/PhD (p. 2261)
- Supply Chain & Logistics, Graduate Certificate (p. 3131)

Minors

Undergraduate Minors

Contact the following individuals for additional information related to minors in their academic area.

Professor Nathan Richardson, nathan.richardson@okstate.edu, 101 Donald W Reynolds School of Architecture Building, 405-744-6043

- Architectural Studies: Architecture and Entrepreneurship (ASAE), Minor (p. 2469)
- Architectural Studies: Design (ASDS), Minor (p. 2470)
- Architectural Studies: History and Theory (ASHT), Minor (p. 2471)

Dr. Heather Yates, heather.yates@okstate.edu, 517 Engineering North, 405-744-8710

- Construction (CNST), Minor (p. 2366)

Dr. Guiping Hu, i (sunderesh.heragu@okstate.edu)em@okstate.edu (iem@okstate.edu), 354 Engineering North, 405-744-6055

- Data Analytics for Engineers (DAEN), Minor (p. 2388)

Dr. Haley Murphy, haley.c.murphy@okstate.edu, 570B Engineering North, 405-744-5638

- Emergency Management (EM), Minor (p. 2372)

Dr. Mark Krzmarzick, mark.krzmarzick@okstate.edu, 226 Engineering North, 405-744-9308

- Environmental Engineering (EVEN), Minor (http://catalog.okstate.edu/engineering-architecture-technology/civil-environmental-engineering/environmental-engineering-minor/)

Dr. Virginia Charter, virginia.charter@okstate.edu, 545 Engineering North, 405-744-5721

- Safety and Exposure Sciences (SAES), Minor (p. 2376)

Dr. Jim Smay, jim.smay@okstate.edu, 700 N. Greenwood Ave., Tulsa, OK, 918-594-8663

- Mechatronic Engineering Technology for EET Students (EETM), Minor (p. 2412)
- Mechatronic Engineering Technology for MET Students (METM), Minor (p. 2413)

Mr. Nathan Cragun, nathan.cragun@okstate.edu, 101 Engineering North, 405-744-9227

- Nuclear Engineering (NENG), Minor (p. 2276)

Dr. Prem Bikkina, prem.bikkina@okstate.edu, 420 Engineering North, 405-744-5280

- Petroleum Engineering (PETE), Minor (p. 2296)

Dr. Guoliang Fan, guoliang.fan@okstate.edu, 200 Engineering South, 405-744-5151

- Computer Engineering (CPE), Minor (p. 2340)
- Electrical Engineering (ELEN), Minor (p. 2345)

Biosystems and Agricultural Engineering

The Department of Biosystems and Agricultural Engineering (BAE) is administered jointly by the Ferguson College of Agriculture and the College of Engineering, Architecture and Technology. Students interested in a degree in Biosystems Engineering can enroll through either college at which time they will be assigned an advisor in Biosystems Engineering. The degree is accredited by the Engineering Accreditation Commission of ABET (see www.abet.org (http://www.abet.org/)) under criteria for biological engineering and similarly named programs.

Biosystems engineers are professionals who create and adapt engineering knowledge and technologies for the efficient and effective production, processing, storage, handling and distribution of food, feed, fiber and other biological products, while at the same time providing for a quality environment and preserving and protecting natural resources. Biosystems engineers directly address problems and opportunities related to food, water, energy and the environment—all of which are critical to the quality of life in our society. Subject-matter specialization is provided through the following five undergraduate option areas: general, bioprocessing and food processing, environment and natural resources, machine systems and pre-medical.

The Biosystems Engineering program is a comprehensive engineering program that includes math, physical and biological sciences, basic engineering sciences and specialty areas. The first two years focus on the underlying biological, physical, chemical and mathematical principles of engineering, supplemented by appropriate general education courses in English, social sciences and humanities. The next two years builds systematically upon the scientific knowledge acquired in the early courses and students have the opportunity to focus on the option areas listed above.

Biosystems engineering courses integrate engineering sciences, physical sciences, and biological sciences, and teach students to address real-world challenges. With the guidance of experienced faculty, students work both as individuals and in teams to design creative solutions to complex problems. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. The coursework incorporates the social and economic aspects of technical problems, and stresses the responsibilities of engineering professionals to behave ethically and promote occupational and public safety. The program culminates in senior year design courses in which students integrate the analysis, synthesis and other abilities they have developed throughout the earlier portions of their study into a capstone experience. At this point, students are able to design components, systems and processes that meet specific requirements, including such pertinent societal considerations as ethics, safety, environmental impact and aesthetics. The students have also developed and displayed the ability to conduct experiments essential to specific studies and to analyze the experimental results that lead to meaningful conclusions.

An integral part of this education continuum—from basic science through comprehensive engineering design—is learning experiences that facilitate the students' abilities to function effectively in both individual and team environments. Moreover, the program provides every graduate with adequate learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and used as a part of their problem-solving experiences. Finally, the students' experience in solving ever-more-challenging problems enables them to continue to learn independently throughout their professional careers.

The Biosystems Engineering program verifies that our students possess core engineering knowledge and capability by requiring students to take the Fundamentals of Engineering exam, which is an important step toward becoming a professional engineer. All candidates for the BS degree in Biosystems Engineering must take the Fundamentals of Engineering exam prior to receiving their degree.

The overall objective of the undergraduate Biosystems Engineering degree program is to provide the comprehensive education necessary to prepare students for successful, productive and rewarding careers in engineering for agricultural, food and biological systems.

Within a few years of graduation, Biosystems Engineering program graduates will become top professionals, managers or leaders in a wide variety of industries and organizations involved with biosystems engineering, where they apply discovery, problem solving, and leadership skills for the benefit of their organization and the society at large.

A wide variety of employment opportunities are available for biosystems engineers in industry, public service and education. Some of these opportunities include positions in governmental agencies, consulting engineering firms, and agricultural and food equipment industries. Biosystems engineers are employed throughout the U.S. as well as internationally.

Courses

BAE 1011 Introduction to Biosystems Engineering
Description: Introduction to the Biosystems Engineering discipline; use of computers in solving engineering problems; and the application of computer software in engineering analysis and reporting. Previously offered as BAE 1012.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

BAE 1022 Experimental Methods in Biosystems Engineering
Prerequisites: BAE 1012 or consent of instructor.
Description: An introduction to the basics of instrumentation, measurement techniques, and data analysis, with an emphasis on written communication skills. Lecture and laboratory exercises that address measurement principles, including accuracy, precision and error analysis.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 2013 Computational Methods in Biosystems Engineering
Description: Introduction to computer-based methods applied to biosystems and agricultural engineering problems. Application of spreadsheet tools and programming methods to solve engineering problems. Course previously offered as BAE 2012.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3013 Heat and Mass Transfer in Biological Systems
Prerequisites: ENSC 3233, MATH 2233.
Description: Mechanisms of heat and mass transfer, with specific applications in transport processes of biological systems. Introduction to steady state and transient heat conduction and convection, radiation, diffusion, simultaneous heat and mass transfer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3023 Instruments and Controls
Prerequisites: ENSC 2613, MATH 2233.
Description: Design of control and instrumentation systems, including sensor and actuator principles, interface electronics, system identification, modeling, and performance specification. Applications in biological and agricultural systems. Design project required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3033 Advanced Biology and Material Science of Biomaterials
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404, PHYS 2014, MATH 2144.
Description: Building on basic biology and engineering fundamentals to characterize properties of biological materials such as moisture content and water movement, rheology, electromagnetic response, thermal properties, conveyance requirements, psychometric interactions and heating/cooling response. Course previously offered as BAE 2022 and BAE 2023.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3113 Biological Applications in Engineering
Prerequisites: BAE 2012, BIOL 1114 or (BIOL 1113 and BIOL 1111), ENSC 2213, 3233, MATH 2233 or concurrent enrollment.
Description: Introduction to engineering applications of biological processes. Technologies covered include fermentation systems, enzyme kinetics, wastewater treatment and bioremediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3213 Energy and Power in Biosystems Engineering
Prerequisites: Completion or concurrent enrollment in ENSC 2213, ENSC 2613, ENSC 3233.
Description: Analysis and design of energy generation, transmission, and utilization in the production and processing of biological materials.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3223 Principles of Agriculture and Off-Road Machinery
Prerequisites: Completion or concurrent enrollment in ENSC 3233, ENSC 2613 and SOIL 2124.
Description: Principles of design, function, operation, testing and application of agricultural and off-road equipment and systems. Vehicle and implement system dynamics and hitching, and plant and soil interaction with machines. Machinery evaluation and standardized test procedures emphasizing safe and efficient performance of modern farm and off-road equipment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3313 Natural Resources Engineering
Prerequisites: BAE 2023, STAT 2013, and ENSC 3233 or concurrent enrollment.
Description: Principles and practices of engineering analysis and design applied to hydrology, water quality, erosion and sedimentation, air quality, irrigation and animal waste management. Course previously offered as BAE 3323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4001 Professional Practice in Biosystems Engineering
Prerequisites: Concurrent enrollment in BAE 4012.
Description: Preparation for professional practice through case studies about ethics, legal liability, safety, and societal issues. Practical professional communications experience.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 4010 Special Topics in Biosystems Engineering
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4012 Senior Engineering Design Project I
Prerequisites: Completion or concurrent enrollment in ENSC 2143, BAE 3013, BAE 3023, BAE 3213, BAE 4001.
Description: Team work on professional level design projects, using design procedures to develop specifications, propose alternative solutions, consider external constraints, develop drawings or plans, construct, test and evaluate designs.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4023 Senior Engineering Design Project II
Prerequisites: BAE 4001, BAE 4012. BAE 4023 must be taken the immediate semester after completion of BAE 4012.
Description: Second of two-semester sequence of senior design courses. Course previously offered as BAE 4022.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4043 In-Vehicle Networking for Off-Road and Heavy Duty Systems
Prerequisites: BAE 3023.
Description: Analysis of in-vehicle network systems and associated design issues. Introduction to CAN-based networking, serial and parallel communications, sensor interfacing, computer control of external devices, and comprehensive coverage of ISO 11783 and BAE J1939.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. Same course as SOIL 4213. May not be used for Degree Credit with BAE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. Course previously offered as BAE 4223. May not be used for Degree Credit with BAE 5224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4283 Bioprocess Engineering
Prerequisites: BAE 3013, BAE 3113 or consent of instructor, ENSC 3233.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 4283. May not be used for Degree Credit with BAE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4314 Design Hydrology
Prerequisites: BAE 3033, ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 5314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4324 Water Quality Engineering
Prerequisites: MATH 2233; BAE 2013; CHEM 1414 or CHEM 1515; or consent of instructor.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment, and integrated watershed management. May not be used for Degree Credit with BAE 5374.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modelling. May not be used for degree credit with BAE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4400 Special Problems
Description: Investigations in specialized areas of biosystems engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 4413 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. Course previously offered as BAE 4423. May not be used for Degree Credit with BAE 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5000 Master's Research and Thesis
Prerequisites: Consent of major professor.
Description: Research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5010 Advanced Topics in Biosystems Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5030 Problems in Biosystems Engineering and Agricultural Technology
Prerequisites: Consent of instructor.
Description: Problems associated with biosystems engineering and agricultural technology. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5213 Renewable Energy Engineering
Prerequisites: ENSC 2213, ENSC 3233 or consent of instructor.
Description: Renewable technologies such as solar, wind, geothermal, hydroelectric, and biomass to generate energy for electricity, heating, transportation, and other uses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5223 Precision Agriculture
Prerequisites: MATH 1513.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. May not be used for degree credit with BAE 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. May not be used for degree credit with BAE 4224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5243 Biological Conversion for Advanced Biofuels
Prerequisites: ENSC 2213.
Description: Fundamental principles and applications of converting biomass to advanced biofuels. Focus will be on biological processes, fermentor design and operation, product recovery and emerging fuels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5283 Advanced Bioprocess Engineering
Prerequisites: Consent of instructor.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5313 Watershed Modeling
Prerequisites: BAE 4313 or equivalent.
Description: A computer modeling course with an emphasis on chemical and physical processes governing nonpoint source pollution (nitrogen, phosphorus, sediment) at the basin scale. The laboratory use of state-of-the-art models applied to a variety of agricultural systems. "Hands on" use of comprehensive hydrologic water quality models that utilize spatial data in a geographic information system. Models and parameter uncertainty, digital data sources, parameter estimation and model testing, calibration and validation. For students with advanced personal computer skills.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5314 Design Hydrology
Prerequisites: BAE 2023 and ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 4323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5324 Modeling and Design in Storm Water and Sediment Control
Prerequisites: BAE 4313 or equivalent.
Description: Analysis and design of storm water, sediment and water quality systems with a focus on application to urban areas and developments in the urban-rural fringe. Advanced concepts in hydrologic modeling with kinematics, diffusion and dynamic modeling of flow; soil erosion, sediment transport and sediment control; storm water quality modeling and the impact of best management practices. In laboratories, use of hydrologic, sediment, and water quality models in analysis and design for real-world problems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5333 Applied Water Resources Statistics
Prerequisites: STAT 5013 or equivalent.
Description: Applied statistical methods for hydrologists, engineers, and environmental scientists for analysis of environmental data. Parametric and nonparametric methods and exploratory data analysis applied to observed environmental data sets. Laboratory exercises emphasize hands-on application of statistical problems to reinforce concepts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modeling. May not be used for degree credit with BAE 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5353 Environmental and Ecological Risk Assessment
Prerequisites: Graduate standing.
Description: Process and methodologies associated with human, environmental and ecological risks. Will quantify uncertainty in human perturbation, management, and restoration of environmental and ecological processes. Course available online only through AG*IDEA consortium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5374 Water Quality Engineering
Prerequisites: Graduate standing.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment and integrated watershed management. May not be used for degree credit with BAE 4324.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5413 Advanced Data Acquisition and Control
Prerequisites: BAE 3023 or equivalent.
Description: Principles and operation of commercial instruments and data acquisition systems used in biological, environmental, and agricultural applications. Hands-on projects that will improve system design, development and programming skills. Introduction of advanced topics including machine vision, spectroscopy, and data communication networks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5423 Food Rheology
Prerequisites: ENSC 3233.
Description: Characterization and analysis of the rheological properties of food products. Focus on measurement techniques and equipment, including tube and rotational type instruments, with specific applications in food processing.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5433 Biosensors
Prerequisites: PHYS 2114 and CHEM 3053 or equivalent.
Description: Principles and applications of biosensors in food analysis, disease diagnostics, and environmental monitoring. Emphasis on conceptual design and characterization of biosensors. Introduction to recent advances in biodetection using nanotechnology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5443 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. May not be used for degree credit with BAE 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5501 Seminar
Description: Discussion of current literature with special emphasis on research and experimental techniques. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 6000 Doctoral Research and Dissertation
Prerequisites: Approval by the student's advisory committee.
Description: Research and doctoral dissertation preparation. Offered for variable credit, 1-10 credit hours, maximum of 42 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6101 Teaching Practicum in Biosystems Engineering
Prerequisites: One semester of doctoral study in Biosystems Engineering, or consent of instructor; International students must pass the ITA exam.
Description: Philosophies and techniques of resident and non-resident teaching, including experiences in preparation, presentation, and evaluation of lectures, laboratories, extension or continuing education programs. Course previously offered as BAE 6100.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6213 Advanced Biomass Thermochemical Conversion
Prerequisites: ENSC 2213.
Description: Advanced study, evaluation, and application of thermochemical conversion pathways in biofuel production. Specific topics include biomass gasification, pyrolysis, liquefaction, and heterogeneous catalysis. Course available online only through AG*IDEA consortium. Course previously offered as BAE 6100.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6313 Stochastic Methods in Hydrology
Prerequisites: CIVE 5843, STAT 4033.
Description: Stochastic and statistical hydrologic analyses of surface water and groundwater systems. Analysis of urban and rural drainage and detention systems. Same course as CIVE 6843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6333 Fluvial Hydraulics
Prerequisites: BAE 3013 or equivalent.
Description: Principles of sediment detachment and transport in fluvial systems. Design of stable channels and flow resistance relationships for sediment-laden flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6343 Ground Water Contaminant Transport
Prerequisites: SOIL 5583 or CIVE 5913 or GEOL 5453.
Description: Principles of solute and multiphase transport in soils and ground water. Effects of advection, diffusion, dispersion, degradation, volatilization and adsorption. Relationships between laboratory and field scale transport. Contamination by nonaqueous phase liquids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6503 Similitude in Research
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6520 Problems in Soil and Water Engineering
Prerequisites: Consent of instructor.
Description: Consent of instructor. Problems associated with erosion control, drainage, flood protection and irrigation. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6540 Prob Farm Power & Mach
Prerequisites: Consent of instructor.
Description: Literature review and analytical studies of selected farm power and machinery problems. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6580 Problems in Transport Processes
Prerequisites: Consent of instructor.
Description: Literature review and analysis of heat and mass transport and interval diffusion in biological materials. Transport phenomena at interfaces, thermal and cryogenic processing, drying, packed and fluidized bed systems. Thermal and moisture control processing affecting quality of food products. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6610 Adv Research & Study
Prerequisites: Approval by the student's advisory committee.
Description: Research and study at the doctoral level on the topic related to the student's doctoral program and field of interest. Offered for variable credit, 1-10 credit hours, maximum of 20 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

Undergraduate Programs

- Biosystems Engineering: Bioprocessing & Food Processing, BSBE (p. 2590)
- Biosystems Engineering: Biosystems Engineering, BSBE (p. 2592)
- Biosystems Engineering: Environmental and Natural Resources, BSBE (p. 2594)
- Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE (p. 2596)
- Biosystems Engineering: Pre-Medical, BSBE (p. 2598)

Graduate Programs

BAE Graduate Programs

The Department of Biosystems and Agricultural Engineering offers Master of Science and Doctor of Philosophy degrees in Biosystems Engineering. Specific research areas include Machine System Engineering, Bioprocessing and Biotechnology, Food Engineering, and Environment & Natural Resources.

BAE provides excellent laboratory and computer facilities for students to explore research and design in such areas as bioprocessing and food engineering, machine vision, sensor and control technology, waste management and utilization, hydrology, water quality, porous media flow, and intelligent systems for agricultural machine design and production.

Research projects are supported by the Oklahoma Agricultural Experiment Station and by state, federal and private grants and contracts. Well-trained faculty members, many of whom are registered professional engineers with research, consulting and design experience, guide the graduate students' activities and plan programs to meet students' needs.

Graduate students design experiments and special equipment to conduct their work. They are expected to demonstrate, by supporting research or by design, the ability to identify a problem, define alternatives, propose a solution, organize a design or an experimental investigation, manage the project to completion, analyze and interpret data, and report the results through peer-reviewed papers and professional presentations.

Graduate Admission Requirements

Admission is competitive based on GPA(s) from previous degree(s), TOEFL/IELTS (for international students), statement of interests, experience, and recommendations. The GRE is not required, but often considered for graduate assistantship.

Minimum BAE Program Requirements

- Previous Degree:
  - An undergraduate degree in Biosystems Engineering or other Engineering from an ABET accredited or equivalent program (ABET Accredited Programs).

- Students with undergraduate degrees in other disciplines or closely related fields, such as chemistry, physics, mathematics, biological science, agricultural sciences, and environmental sciences are also invited to apply to the BAE graduate program. Such applications are evaluated on an individual basis. Completion of additional credit hours of undergraduate course (such as engineering sciences and advanced biology) may be required before a BAE graduate Plan of Study is developed.
- Grade Point Average (GPA): GPA ≥ 3.0 (on a 4.0 scale). Equivalent grades are required from an international university.

Prior research and publication experience for a Ph.D. application are preferred.

Degree Requirements

Each graduate student follows an approved plan of study and is supervised by his/her advisory committee. The Plan of Study is designed to satisfy the individual goals of the student, while conforming to the general requirements of the BAE Department and the Graduate College.

Master of Science Degree – Thesis Option

MS students with a Thesis Option will complete a thesis reporting original research. Thirty (30) credit hours are required for the degree, which consists of 23 credits of coursework (including 9 credits of BAE courses), one (1) credit of BAE 5501, BAE Graduate Seminar, and six (6) credits of satisfactory research hours (BAE 5000).

Master of Science Degree – Non-Thesis Option with a Formal Format

MS students with a Non-Thesis Option and a Formal Report should complete a total of 32 credit hours, which consist of at least 28 credits of coursework (including 6 credits of BAE courses), one (1) credit of BAE 5501, BAE Graduate Seminar, and 1-3 credits of BAE 5000, Thesis Research.

Master of Science Degree – Non-Thesis Option

MS students with a Non-Thesis Option are required to complete a total of thirty-two (32) credit hours of coursework (including six credits of BAE courses and one credit of BAE 5501, BAE Graduate Seminar).

Doctor of Philosophy Degree (Ph.D.) – After MS Option

Ph.D. students are required to take a minimum total of 44 credit hours beyond an MS degree. This includes a minimum of 30 credits of BAE 6000 Thesis Research and 14 credits of coursework. The coursework is required to include at least 6 credits of BAE courses, including one (1) credit of BAE 6101,Teaching Practicum, and one (1) credit of BAE 5501, BAE Graduate Seminar.

Doctor of Philosophy Degree (Ph.D.) – After BS Option

Ph.D. students are required to take a minimum 74 credits beyond a BS degree. This includes a minimum of 36 credits of BAE 6000, Thesis Research, and 38 credits of coursework. The coursework should include at least six (6) credit hours of BAE courses, including one (1) credit hour of BAE 6101, Teaching Practicum and two (2) credit hours of BAE 5501, BAE Graduate Seminar.

Faculty

Mari S. Chinn, PhD—Professor and Department Head, AT&T Professorship in Engineering
Professor, Orville L. and Helen Buchanan Endowed Chair: Danielle Bellmer, PhD
Director, Capital Projects for CASNR/Assistant Director, Oklahoma Agricultural Experiment Station: Randy L. Raper, PhD, PE
Professors: Hasan Atiyeh, PhD, PE; Danielle D. Bellmer, PhD; Timothy J. Bowser, PhD, PE; Nurhan Dunford, PhD, PE; Ajay Kumar, PhD, PE; Yu Mao, PhD; Randal K. Taylor, PhD, PE; Ning Wang, PhD, PE
Associate Professors: Robert Scott Frazier, PhD, PE; Douglas W. Hamilton, PhD, PE; John Long, PhD, PE; Ali Mirchi, PhD
Assistant Professors: Sumon Datta, PhD; Keighobad Jafarzadegan, PhD; Kiranmayi Mangalgiri, PhD; Kevin Moore, PhD, MBA, CSP; Jeffrey Sadler, PhD
Assistant Extension Specialist: Wesley Lee, MS
Teaching Assistant Professor: Sara Alian, PhD
Adjunct Professors: Jason Vogel, PhD, PE
Adjunct Associate Professors: Krushna Patil, PhD; Derek Whitelock, PhD
Adjunct Assistant Professor: Sherry L. Hunt, PhD

CEAT Dean's Office and CEAT Online Learning

CEAT Online Learning

The CEAT Online Learning office provides administrative and technological support along with specialized recording classrooms and a studio to enable CEAT faculty to offer high quality online courses. To learn more about CEAT Online Learning and see their contact information, please visit the CEAT Online Learning website (https://ceat.okstate.edu/osuonline/).

Courses are open to non-degree seeking students who meet the course prerequisites.

Nuclear Engineering Minor

The Nuclear Engineering minor provides students with a solid understanding of essential nuclear concepts and principles. Students gain both conceptual and hands-on experiences and learn about areas such as: radiation detection, nuclear and particle physics, nuclear engineering, energy conversion, and energy systems and resources.

Minors

- Nuclear Engineering (NENG), Minor (p. 2276)

Nuclear Engineering (NENG), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Sunderesh Heragu, s (sunderesh.heragu@okstate.edu)underesh.heragu@okstate.edu (Sunderesh.heragu@okstate.edu), 201 ARTC, 405-744-5140

Minimum Overall Grade Point Average: 2.50 with a grade of "C" or better in each course submitted for the minor
Total Hours: 15 (not including math and science prerequisites)

Code	Title	Hours
Minor Requirements		
PHYS 4663	Radioactivity and Nuclear Physics	3
or ENGR 4213	Elements of Nuclear Engineering	
Select 12 hours from below:		12
(Other courses approved by college)		
PHYS 3713	Modern Physics	
PHYS 4010	Special Problems [1]	
PHYS 4663	Radioactivity and Nuclear Physics	
MAE 4263	Energy Conversion Systems	
ENGR 4213	Elements of Nuclear Engineering	
ENGR 4233	Energy Systems and Resources	
ENGR 4283	Science and Technology of Terrorism and Counterterrorism	
ENGR 4293	Nonproliferation: Issues for Weapons of Mass Destruction	
ENGR 4300	Nuclear Engineering Special Topics	
Total Hours		**15**

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PHYS 4010 must be Introduction to Health Physics, Nuclear Reactor Theory, or other approved PHYS 4010

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Chemical Engineering

Chemical engineers use knowledge of how nature works (science) and the language of science (mathematics) to create value and solve complex problems for the benefit of society. The key skill that differentiates chemical engineering from other disciplines is the ability to understand, design and operate transformation (physical or chemical) processes. Chemical engineers literally change (transform) the world. Many in the public assume chemical engineers work only in chemical plants and petroleum refineries. The reality is that chemical engineers work in a broad range of industries including pharmaceuticals, biochemicals, semiconductor materials, foods, plastics, paper, steel, consumer goods, automotive, specialty materials, oil & gas production, renewable energy, engineering services, and the list goes on. Key to providing a benefit to society, chemical engineers are responsible for resource conservation, minimizing pollution, minimizing costs, and maximizing the quality and safety of processes that make the products.

The emphasis on the molecular or chemical nature of everything people use is what makes chemical engineers different from other engineers. The emphasis on the processes that make the products is what makes chemical engineers different from chemists.

Chemical engineers often find themselves defining a problem or product, developing a process to do what is needed, and then designing the equipment to carry out the process. After installation, chemical engineers typically manage operations, oversee equipment maintenance, and supervise the control of product quality. They troubleshoot problems that hinder smooth operations, and they plan for future expansions or improvements. Their training and knowledge make them well qualified to market products and processing equipment. The varied background and experience of chemical engineers make them ideally suited for advancement into top-level managerial and executive positions. An advanced degree in chemical engineering is not required.

Many who aspire to careers in medicine or law first obtain BS degrees in chemical engineering. The rigor of the program and the emphasis on critical thinking and analytical reasoning are highly valued by professional school admission committees. A career as a research scientist or academic typically requires a PhD degree.

Vision

1. Sustain a nationally competitive undergraduate program recognized for quality, fundamental-practice balance, and educational leadership.

2. Attain widespread recognition for contributions to professional knowledge and tools, which are useful, widely accepted, and practiced by others.

3. Sustain and create infrastructures that facilitate synergism, creativity, personal and professional growth, and productivity by students and professional personnel both within OSU and the outside world.

Mission

The mission of the School of Chemical Engineering at Oklahoma State University is to develop human resources, professional knowledge, and the infrastructure through which chemical engineering can contribute to human welfare. We expect to maintain national recognition for our contributions.

Program Educational Objectives

The goal of the BS degree program is to produce graduates who possess broad-based knowledge, skills and judgment that prepares them to succeed in the profession of engineering or in further studies at the graduate level, including medical school. To achieve this goal, the program is designed to progressively develop both technical and human skills. The School has three broad objectives. Within the first few years after graduation, our BS graduates will have demonstrated:

Competencies – skill in tools and techniques that are fundamental to the job and the ability and drive to be life-long learners.

Professionalism – applying technical skills in combination with business acumen, teamwork, and communication skills to advance the mission of the enterprise with ethics and integrity.

Balance – a holistic, integrated understanding of self and society to empower self-direction, wise life choices, and deployment of skills in a global context.

Student Learning Outcomes

Graduating students possess an understanding of fundamental chemical engineering concepts, methodologies and technologies as demonstrated by:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The curriculum consists of three primary parts:

1. general education,
2. core engineering, and
3. chemical engineering topics.

In the first two years of the chemical engineering program, the focus is on the underlying scientific and mathematical principles of engineering, supplemented by relevant general education courses in English, the social sciences, history, and humanities. Students who demonstrate proficiency in this portion of the program continue to the last two years of the program with a focus on core chemical engineering courses.

Students have the opportunity to focus in one of three options in the program:

1. the regular course prepares a graduate for a wide range of employment opportunities;
2. the pre-medical option is for those who wish to prepare for medical school; and
3. the biomedical/biochemical option is for those who seek employment in bio-related professions.

Each option prepares students for success in both employment and graduate study at OSU or other universities. A detailed description of degree requirements for the bachelor's-level curricula is given in the publication Undergraduate Programs and Requirements.

Each option builds upon the preceding chemical engineering courses to develop the ability to identify and solve meaningful engineering problems. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. The coursework includes sensitizing students to socially-related technical problems and their responsibilities as engineering professionals to behave ethically and protect occupational and public safety. The program culminates in the senior-year design courses in which the students integrate the analysis, synthesis and other abilities they have developed throughout the earlier portions of their study into a capstone experience. At this point, students will be able to design components, systems and processes that meet specific requirements, including such pertinent societal considerations as ethics, safety, environmental impact, and aesthetics. The students will have developed and displayed the ability to design and conduct experiments essential to specific studies, and to analyze the experimental results and draw meaningful conclusions within an enterprise context.

Integral parts of this educational continuum, from basic science through comprehensive engineering design, are learning experiences that facilitate the students' abilities to function effectively in both individual and collaborative environments. To achieve this, the program provides every student with adequate learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and utilized as a part of their problem-solving experiences. Ultimately, the students' experience in solving increasingly complex problems empowers them to continue to learning independently throughout their professional careers.

Students are offered opportunities to enhance their classroom and laboratory experiences through student organizations such as the student chapter of the American Institute of Chemical Engineers. Omega Chi Epsilon, the national honor society for chemical engineering students, recognizes outstanding scholars. Additionally, opportunities for internships and co-op experiences are offered to chemical engineering students so that they can gain professional experience during their collegiate program. Please visit our website http://che.okstate.edu (http://che.okstate.edu/) for more information.

The Bachelor of Science Program in Chemical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org (https://www.abet.org/), under the general criteria and the Chemical Engineering Program criteria. https://ceat.okstate.edu/che/abet-and-educational-outcomes.html.

Courses

CHE 1112 Introduction to the Engineering of Coffee (LN)
Description: A non-mathematical introduction to the engineering aspects of roasting and brewing coffee. Simple engineering concepts are used to study methods for roasting and processing of coffee. The course will investigate techniques for brewing coffee such as a drip coffee, pour-over, French press, AeroPress, and espresso. Laboratory experiences focus on roasting and brewing coffee to teach introductory engineering concepts to both engineers and non-engineers.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

CHE 2023 Introduction to Chemical Engineering Thermodynamics
Prerequisites: CHEM 1515, MATH 2144, and PHYS 2014 with a grade of "C" or better.
Description: Systems approach to modeling industrial process, application of first and second laws, properties of substances, separate strategies using thermodynamic principles, and power generation cycles. May not be used for degree credit with ENSC 2213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 2033 Introduction to Chemical Process Engineering
Prerequisites: CHEM 1515, (CHE 2023 or ENSC 2213), ENGR 1412, ENGL 1113, ENGR 1111 with grades of "C" or better and concurrent enrollment in MATH 2233 or MATH 3263.
Description: Application of mathematics and scientific principles to solving chemical engineering problems. Simple material and energy balances applied to process design. The nature and application of unit operations and unit processes to the development of chemical processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3 Other: 0
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Chemical Engineering

CHE 2581 Chemical Engineering Seminar I
Prerequisites: CHE majors.
Description: Through guest lectures and home assignments, preparation and planning for a CHE career and success in the CHE curriculum. Professional growth topics oriented to students in the sophomore-level courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3013 Rate Operations I
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Development and application of phenomenological and empirical models to the design and analysis of fluid processing and heat transfer unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3113 Rate Operations II
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, and CHE 3543 with grades of "C" or better.
Description: Development and application of phenomenological and empirical models to the design and analysis of mass transfer and separations unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3123 Chemical Reaction Engineering
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, and CHE 3543 with grades of "C" or better.
Description: Principles of chemical kinetics rate concepts and data treatment. Elements of reactor design principles for homogeneous systems; introduction to heterogeneous systems. Course previously offered as CHE 4473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3202 Interdisciplinary Design and Build for Chemical Systems I
Prerequisites: CEAT major or consent of instructor.
Description: Interdisciplinary design course that provides independent work experience, professional development, and assigned design-build problems.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3211 Interdisciplinary Design and Build for Chemical Systems II
Prerequisites: CEAT major and CHE 3202 or consent of instructor.
Description: Continuation of CHE 3202. Interdisciplinary design course that provides independent work experience, professional development, and assigned design-build problems.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3333 Introduction to Transport Phenomena
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Molecular concepts of mass, momentum, and thermal energy diffusion. Theories and correlations for transport properties of viscosity, thermal conductivity, and diffusivity. Shell balance techniques to derive differential equations of change. Application of ODEs to simple transport phenomena problems. Turbulent flow analysis. Use of CFD software for analysis. Course previously offered as CHE 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3473 Chemical Engineering Thermodynamics
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better.
Description: Application of thermodynamics to chemical process calculations. Behavior of fluids, including estimation of properties by generalized methods. Study of chemical thermodynamics, including heats of reaction, chemical reaction, and phase equilibria.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3543 Introduction to Chemical Process Analytics
Prerequisites: CHE 2033, (CHEM 3112 & CHEM 3153) OR (BIOC 3653 & BIOC 3723), MATH 2233 OR MATH 3263, and ENSC 3233 with grades of "C" or better..
Description: Data generation and analysis methods from chemical processes and experiments. Model development using programming. Data interpretation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 3581 Chemical Engineering Seminar II
Prerequisites: CHE 2033, CHE 2581, ENGR 1111.
Description: Through guest lectures and home assignments, preparation and planning for a CHE career and success in the CHE curriculum. Professional growth topics oriented to students in the junior-level CHE courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4002 Chemical Engineering Laboratory I
Prerequisites: CHE 3013, CHE 3333, CHE 3473, ENSC 3231, CHE 3543 with grades of "C" or better.
Description: Application of CHE fundamentals and unit operation principles to the analysis of bench and pilot-scale equipment. Primarily fluid processing and heat exchange. Design of experiments on non-ideal units to generate credible data useful for validation of principles and for engineering decisions. Interpretation of experimental data and presentation of results.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemical Engineering

CHE 4073 Introduction to Tissue Engineering
Prerequisites: Senior standing or higher and ENSC 3233 and ENSC 3313 and MATH 2153; or by consent of instructor.
Description: An overview of the principles of tissue engineering and regenerative medicine, including a general understanding of tissue growth and development, and an investigation of the engineering principles needed to design tissues and organs. May not be used for degree credit with CHE 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4112 Chemical Engineering Laboratory II
Prerequisites: CHE 3113, CHE 3123, CHE 4002 with grades of "C" or better.
Description: A continuation of CHE 4002. Primary reaction and mass transfer processes.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Chemical Engineering

CHE 4124 Chemical Engineering Design I
Prerequisites: CHE 3113, CHE 3123, CHE 4002 with grades of "C" or better.
Description: Economic analysis of process plants and systems of equipment; methods for estimating plant investment requirements and operating costs; economic evaluation and optimal design of chemical process systems; basic equipment and process design calculations.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 4133 Introduction to Catalysis and Photocatalysis
Prerequisites: Senior standing or higher and CHE 3123 or consent of instructor.
Description: Molecular level insight into catalysis and photocatalysis from the basics of chemistry and chemical engineering. Topics covered include homogeneous catalysis, heterogeneous catalysis, molecular photocatalysis, and photocatalysis on metals and metal oxides. The rational design of catalysts using first-principle (e.g., density functional theory) calculations is covered. Advancements made in the experimental and computational catalysis fields to convert renewable natural resources such as solar light and cellulosic biomass into electricity, fuels, valuable chemicals and pharmaceuticals. May not be used for degree credit with CHE 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4183 Drug Delivery
Prerequisites: Senior standing or higher; or by consent of instructor.
Description: The future of medicine seems focused on the technologies for drug delivery and on large, macromolecular drugs such as genes and proteins. This course is intended to give you an overview of macromolecular drugs (i.e., genes and proteins) and the methods for their delivery. May not be used for degree credit with CHE 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4224 Chemical Engineering Design II
Prerequisites: CHE 4112 and CHE 4124.
Description: A continuation of CHE 4124. Economic analysis of process plants and equipment. Design of chemical processing equipment and chemical plants. Application of computer techniques to chemical engineering design.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 4283 Bioprocess Engineering
Prerequisites: CHE 3123 (or instructor consent).
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as BAE 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4293 Biomedical Engineering
Prerequisites: ENSC 3233, (CHE 2023 or ENSC 2213); or consent of instructor.
Description: Introduction to engineering principles applied to biomedical applications. Biomaterials, drug delivery, artificial organs, transport in biological systems, tissue engineering and modeling of biological systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4303 Introduction to Science and Engineering Research
Prerequisites: Senior level or by consent of instructor.
Description: This course is designed to expose senior level undergraduate students to principles and practice common to research in science and engineering, and accelerate student development towards independent and creative research prowess upon entering a graduate program. May not be used for degree credit with CHE 5303 or CHE 5302. Previously offered as CHE 4302.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4323 Electrochemical Engineering
Prerequisites: ENSC 2213 or CHE 2023, ENSC 3233; or consent of instructor.
Description: An introduction to the fundamental principles of electrochemistry and its applications in different engineering systems for energy, chemical, biomedical, and electronics industries. May not be used for degree credit with CHE 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4343 Environmental Engineering
Prerequisites: CHE 3123 or consent of instructor.
Description: Application of science and engineering principles to minimize the adverse effects of human activities on the environment. National and state environmental regulations. Predictive movement and fate of chemicals in the geospheres. Multi-media pollution assessment, analysis and control. Consideration of safety, health and environmental issues from a process standpoint.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4483 Introduction to Spectroscopy in Engineering Research, Development, and Practice
Prerequisites: Senior standing or higher; or by consent of instructor.
Description: This course will introduce the fundamentals and practice of spectroscopic methods that the practicing engineer will most likely encounter in fields like agriculture, aerospace, food science, chemical conversion and refining, catalysis, medicine, petroleum engineering, polymer development and production, materials science, plastics reclamation and recycling, on-line process control, pharmaceutical development, and others. May not be used for degree credit with CHE 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4493 Introduction to Molecular Modeling and Simulation
Prerequisites: Senior standing or higher and any one of the following courses – CHE 3473, CHEM 3433, CHEM 3553, MAE 3223, MAE 5683, MAE 5693, BIOC 3223 or consent of instructor.
Description: Theory of statistical mechanics and its application to computing thermodynamic, transport and phase equilibria properties of fluids. Modeling of matter at molecular level and atomistic simulation methods such as Monte Carlo and molecular dynamics. Quantum calculation of thermodynamics for industrially relevant reactions. Software used: Cassandra, Gromacs, LAMMPS, and Gaussian. May not be used for degree credit with CHE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4523 Introduction to Colloid Processing
Prerequisites: MATH 2153 and CHEM 1515.
Description: The physics and chemistry governing the behavior of microscopic particles in dilute and concentrated suspensions. Interparticle interaction influence on viscosity, viscoelasticity, yield stress, and shear thinning. Practical applications of colloids principles in industrial practice. No credit for students with credit in CHE 5523. Same course as MSE 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4533 Colloidal and Interfacial Phenomena
Prerequisites: Senior standing.
Description: This course surveys applications and fundamental aspects of colloidal and interfacial phenomena, industrial applications include pharmaceuticals, energy, agriculture, and food/beverage, and will explore systems such as surfactants, polymers, emulsions, dispersions, foams, and particles at interfaces. The course includes explorations of emulsion stability mechanisms, interparticle interactions, surfactant behavior, and interfacial stability mechanisms. Experimental techniques used to characterize these systems such as interfacial tenslometry and dispersion sizing will be discussed. May not be used for degree credit with CHE 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4543 Machine Learning for Chemical Processes
Prerequisites: MATH 2144, CHE 3543, or Consent of Instructor.
Description: The emphasis of the course will be to utilize concepts from statistics, calculus, and linear algebra to develop machine learning models applicable to a wide range of problems in engineering, natural and social sciences, and finance. Special emphasis will be given to the application of methods in the chemical engineering domain. However, students from other disciplines will find the methods broadly applicable to their areas of interest. Homework assignments and project will provide opportunities to apply the knowledge in a broader context. May not be used for degree credit with CHE 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4581 Chemical Engineering Seminar III
Prerequisites: Senior standing, CHE 3581.
Description: Through guest lectures and home assignments, preparation and planning for a ChE career and success in the ChE curriculum. Professional growth topics oriented to students in the senior-level ChE courses.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4603 Introduction to Membrane Separations
Prerequisites: Senior standing or higher and CHE 3113 or consent of instructor.
Description: Basic principles of membrane technology: membrane synthesis processes and molecular separation mechanisms for different types of membranes. General overview of many different membrane processes. Basic transport equations and fundamental concepts with examples and industrial applications. Includes a project/discussion for a membrane reactor model. May not be used for degree credit with CHE 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4753 Introduction to Applied Numerical Computing for Scientists and Engineers
Prerequisites: Senior standing or higher, and MATH 2233 or MATH 3263, and knowledge of programming, or consent of instructor.
Description: Practical software tools for computational problem solving in science and engineering: version control (e.g., Git), mathematical typesetting (e.g., LaTeX), graphical user interfaces, and high level program languages with libraries of solvers and visualization tools (e.g., Python and MATLAB). Application of numerical computing methods to solve systems of differential and algebraic equations and to estimate model parameters using optimization. May not be used for degree credit with CHE 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4773 Introduction to Computational Fluid-Particle Dynamics
Prerequisites: Senior standing or higher and CHE 3333 or consent of instructor.
Description: Computational fluid-particle dynamics (CFPD) modeling strategies and simulation of multiphase flow transport phenomena such as particle tracking, deposition, reaction, and erosion. Detailed flow visualization using multiphase flow models on ANSYS CFX and Fluent platforms. Application of numerical techniques to simulate processes defined by first-principles. Application of CFPD for drug formulation optimization, lung aerosol dynamics, separation processes, reactions in stirred tanks and plug flow reactors. May not be used for degree credit with CHE 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4783 Nanomaterial Synthesis and Characterization
Prerequisites: Senior standing or consent of instructor.
Description: Exposing students to the principles and concepts of nanoscience and nanotechnology with focus on nanomaterial synthesis and characterization, and accelerating student development towards an effective literature review on a selected topic. May not be used for degree credit with CHE 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4843 Chemical Process Instrumentation and Control
Prerequisites: ENSC 2613, ENGR 2421 with grades of "C" or better, CHE 4112 and CHE 4124.
Description: Process instrumentation for measurement and control. Process dynamics and modeling. Linearization. Classical control system analysis and design. Tuning. Communication through block diagrams and P&IDs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 4880 Special Topics
Prerequisites: Senior standing.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 4990 Special Problems
Prerequisites: Senior standing.
Description: Training in independent work, study of relevant literature, and experimental investigation of an assigned problem. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.
Credit hours: 1-5
Contact hours: Contact: 1-5 Other: 1-5
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5000 Master's Thesis
Prerequisites: Approval of major professor.
Description: Methods used in research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5030 Professional Practice
Prerequisites: Senior standing and consent of instructor.
Description: Application of chemical engineering principles to the solution of real-life engineering problems in an actual or simulated industrial environment. Includes application of design and testing procedures, economic evaluation and reporting on one or more assigned projects. Offered for variable credit, 2-6 credit hours, maximum of 8 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5073 Tissue Engineering
Prerequisites: Graduate standing and permission of instructor.
Description: Tissue engineering (TE) and the material strategy for different tissue constructs in bone TE, liver TE, neural TE, intestine TE, etc. will be discussed in this course. Same as MSE 5073. May not be used for degree credit with CHE 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5110 Special Topics in Chemical Engineering
Prerequisites: Consent of instructor.
Description: Small group and individual projects in unit operations, unit procedures, chemical kinetics, computer applications, process modeling, or any of a wide range of chemical engineering topics. May be repeated for credit if subject matter varies. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Contact: 2-3 Other: 2-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5123 Advanced Chemical Reaction Engineering
Prerequisites: CHE 4473.
Description: Advanced principles and applications of chemical kinetics in catalysis, heterogeneous systems, non-ideal reactions, polymerization, and biological reactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5133 Catalysis and Photocatalysis
Prerequisites: Graduate standing or CHE 3123 or consent of instructor.
Description: Molecular level insight into catalysis and photocatalysis from the basics of chemistry and chemical engineering. Topics covered include homogeneous catalysis, heterogeneous catalysis, molecular photocatalysis, and photocatalysis on metals and metal oxides. The rational design of catalysts using first-principle (e.g., density functional theory) calculations is covered. Advancements made in the experimental and computational catalysis fields to convert renewable natural resources such as solar light and cellulosic biomass into electricity, fuels, valuable chemicals and pharmaceuticals. May not be used for degree credit with CHE 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5183 Drug Delivery
Prerequisites: Graduate standing or consent of instructor.
Description: The future of medicine seems focused on the technologies for drug delivery and on large, macromolecular drugs such as genes and proteins. This course is intended to give you an overview of macromolecular drugs (i.e., genes and proteins) and the methods for their delivery. May not be used for degree credit with CHE 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5213 Advanced Transport Phenomena
Prerequisites: CHE 3333 (or equivalent), or graduate student standing in the School of Chemical Engineering, or a closely related, calculus-based STEM discipline, or consent of instructor.
Description: Mechanisms and modeling of mass, momentum and heat transport with an emphasis on chemical, petroleum, and biomedical engineering applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5233 Bioseparations
Prerequisites: BAE 3013 or CHE 3013.
Description: Study of separations important in food and biochemical engineering such as leaching, extraction, expression, absorption, ion exchange, filtration, centrifugation, membrane separation, and chromatographic separations. Course available online only through AG*IDEA consortium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5263 Advanced Biomaterials Science and Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Engineering issue that are implicit in understanding the interactions of living tissue and processed materials will be introduced. Emphasis is on identifying the processes in which cells interact with surfaces and particulate matter and the outcome of these interactions. Highlighted biological responses will include inflammation and coagulation. Also, biomaterial issues related to drug delivery and tissue engineering will be discussed. Same course as MAE 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5273 Basic Physiology and Physiological System Analysis for Engineers
Prerequisites: Graduate standing or consent of instructor.
Description: The goals of this class are: 1) to introduce the basic physiology concepts used widely in biomedical engineering research; 2) to introduce and develop engineering concepts and approaches for quantitative analysis of physiological systems. Engineering principles will be applied to study mechanical properties of various tissue and organ systems under normal and diseased conditions. Knowledge obtained from this class can help engineers to apply engineering principles to the design and development of medical devices for disease treatments. Same course as MAE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5283 Advanced Bioprocess Engineering
Prerequisites: Consent of instructor.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up, and downstream processing. Same course as BAE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5293 Advanced Biomedical Engineering
Prerequisites: Consent of instructor.
Description: Principles and engineering analysis of biomedical processes. Artificial organs, biomaterials, tissue engineering, transport in biological systems, biomedical imaging and drug delivery systems. Same course as MAE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5303 Introduction to Science and Engineering Research
Prerequisites: Graduate level or by consent of instructor.
Description: This course is designed to expose new graduate students to principles and practice common to research in science and engineering, and accelerate student development towards independent and creative research prowess. May not be used for degree credit with CHE 4302, CHE 4303, and PETE 6813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5323 Electrochemical Engineering
Prerequisites: Graduate standing.
Description: An introduction to the fundamental principles of electrochemistry and its applications in different engineering systems for energy, chemical, biomedical, and electronics industries. May not be used for degree credit with CHE 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5343 Advanced Environmental Engineering
Prerequisites: Consent of instructor.
Description: Science and engineering principles to minimize the adverse effects of human activities on the environment. National and state regulations. Predictive movement and fate of chemicals in the geospheres. Multi-media pollution assessment, analysis, and control. Consideration of safety, health, and environment issues from a process standpoint. Special project required. Credit not allowed if CHE 4343 was taken.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5373 Process Simulation
Prerequisites: CHE 5843 or concurrent enrollment or with professor's consent.
Description: Computer-aided process synthesis, simulation, analysis and optimization. Systematic tools for developing and screening potential chemical process flow sheets. Use of commercial process simulators to aid in evaluating process designs. Practical problems will be used as examples and case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5483 Spectroscopy in Engineering Research, Development, and Practice
Prerequisites: Graduate standing or consent of instructor.
Description: This course will introduce the fundamentals and practice of spectroscopic methods that the practicing engineer will most likely encounter infields like agriculture, aerospace, food science, chemical conversion and refining, catalysis, medicine, petroleum engineering, polymer development and production. materials science, plastics reclamation and recycling, on-line process control, pharmaceutical development, and others, May not be used for degree credit with CHE 4483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5493 Molecular Modeling and Simulation
Prerequisites: Graduate standing and any one of the following courses: CHE 3473, CHEM 3433, CHEM 3553, MAE 3223, MAE 5683, MAE 5693, BIOC 3224 or consent of instructor.
Description: Theory of statistical mechanics and its application to computing thermodynamic, transport and phase equilibria properties of fluids. Modeling of matter at molecular level and atomistic simulation methods such as Monte Carlo and molecular dynamics. Quantum calculation of thermodynamics for industrially relevant reactions. Software used: Cassandra, Gromacs, LAMMPS, and Gaussian. May not be used for degree credit with CHE 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5523 Colloid Processing
Prerequisites: Graduate standing in engineering, physics, or chemistry or consent of instructor.
Description: The physics and chemistry governing the behavior of microscopic particles in dilute and concentrated suspensions. Interparticle interaction influence on viscosity, viscoelasticity, yield stress, and shear thinning. Practical application of colloids principles in industrial practice.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5533 Colloidal and Interfacial Phenomena
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. May not be used for degree credit with CHE 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5543 Machine Learning for Chemical Processes
Prerequisites: Graduate standing, MATH 2144, and CHE 3543; or Consent of Instructor.
Description: The emphasis of the course will be to utilize concepts from statistics, calculus, and linear algebra to develop machine learning models applicable to a wide range of problems in engineering, natural and social sciences, and finance. Special emphasis will be given to the application of methods in the chemical engineering domain. However, students from other disciplines will find the methods broadly applicable to their areas of interest. May not be used for degree credit with CHE 4543. Previously offered as CHE 5990.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5603 Membrane Separations
Prerequisites: Graduate standing and CHE 3113 or consent of instructor.
Description: Basic principles of membrane technology: membrane synthesis processes and molecular separation mechanisms for different types of membranes. General overview of many different membrane processes. Basic transport equations and fundamental concepts with examples and industrial applications. Includes a project/discussion for a membrane reactor model. May not be used for degree credit with CHE 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5633 Stagewise Operations
Description: Stagewise separation in binary and multicomponent systems. Development of theoretical techniques with application to typical situations in vapor-liquid, liquid-liquid and solid-liquid systems. Use of digital and analog techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5703 Optimization Applications
Prerequisites: Graduate standing.
Description: A survey of various methods of unconstrained and constrained linear and non-linear optimization. Applications of these methodologies using hand-worked examples and available software packages. Intended for engineering and science students. Same course as ECEN 5703, IEM 5023 & MAE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5723 Plasmonic Photocatalysis
Prerequisites: CHE 5123; or by consent of instructor.
Description: The field of plasmonic photocatalysis grew tremendously in the last decade. In this course, the current state of the art plasmonic photocatalysis are reviewed through the rigorous collection of literature. The advantages of the visible-light-driven plasmonic photocatalysis over the conventional thermal energy-driven heterogeneous catalysis will be discussed. The fundamental insight into photocatalytic mechanisms by which the charge carriers (electrons and holes) are formed and transferred to adsorbates to drive chemical transformations on the surface of plasmonic nanocatalysts will also be discussed. The computational methods used to predict and understand the photocatalytic activity and selectivity in plasmonic photocatalysis will also be reviewed. Finally, the current challenges, new opportunities, and future outlook for plasmonic photocatalysis will be presented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5733 Neural Networks
Prerequisites: Graduate standing.
Description: Introduction to mathematical analysis of networks and learning rules and on the application of neural networks to certain engineering problems, image and signal processing and control systems. Same course as ECEN 5733 & MAE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5743 Chemical Engineering Process Modeling
Description: Chemical engineering systems and process models. Analytical and numerical methods of solution of resulting equations with computer methods in a chemical engineering context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5753 Applied Numerical Computing for Scientists and Engineers
Prerequisites: Graduate standing, and MATH 2233 or MATH 3263, and knowledge of programming, or consent of instructor.
Description: Practical software tools for computational problem solving in science and engineering: version control (e.g., Git), mathematical typesetting (e.g., LaTeX), graphical user interfaces, and high level program languages with libraries of solvers and visualization tools (e.g., Python and MATLAB). Application of numerical computing methods to solve systems of differential and algebraic equations and to estimate model parameters using optimization. May not be used for degree credit with CHE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5773 Computational Fluid-Particle Dynamics
Prerequisites: Graduate standing and CHE 3333 or consent of instructor.
Description: Computational fluid-particle dynamics (CFPD) modeling strategies and simulation of multiphase flow transport phenomena such as particle tracking, deposition, reaction, and erosion. Detailed flow visualization using multiphase flow models on ANSYS CFX and Fluent platforms. Application of numerical techniques to simulate processes defined by first-principles. Application of CFPD for drug formulation optimization, lung aerosol dynamics, separation processes, reactions in stirred tanks and plug flow reactors. May not be used for degree credit with CHE 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5783 Nanomaterial Synthesis and Characterization
Description: Exposing students to the principles and concepts of nanoscience and nanotechnology with focus on nanomaterial synthesis and characterization, and accelerating student development towards an effective literature review to come up with novel idea on a selected topic. May not be used for degree credit with CHE 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5843 Principles of Chemical Engineering Thermodynamics
Description: Principles of thermodynamics. Properties of fluids and prediction of thermodynamic properties. Phase and chemical equilibrium. Thermodynamics in unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5850 Advanced Process Control Laboratory
Prerequisites: Graduate standing and permission of instructor.
Description: Instrumentation systems and control strategies on pilot-scale chemical processes. Calibration, filtering, dynamic modeling, tuning, advanced control, and method evaluation. Students will learn industrial practices and cope with many non-idealities. Offered for variable credit, 2-3 credit hours, maximum of 6 credit hours.
Credit hours: 2-3
Contact hours: Lecture: 1 Lab: 2-4 Contact: 3-5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Chemical Engineering

CHE 5853 Advanced Chemical Process Control
Prerequisites: CHE 4843 or equivalent.
Description: General concepts and approaches of model-based control. Studies in the application of process-model-based control and model-predictive control on multivariable, nonlinear, nonstationary, noisy processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5873 Air Pollution Control Engineering
Description: Causes, effects and control of atmosphere pollution. Same course as CIVE 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 5880 Special Problems
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 5990 Special Problems
Prerequisites: Consent of instructor.
Description: Individual report topics in chemical engineering involving operations, processes, equipment, experiments, literature search, theory, computer use or combinations of these. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6000 Doctoral Thesis
Prerequisites: Consent of major professor.
Description: The doctoral candidate registers for a minimum of 1 semester credit hour to a maximum of 15 semester credit hours in each semester during which dissertation work is in process. Methods used in research and thesis writing. An original investigation of a problem in chemical engineering and its report in a dissertation. Offered for variable credit, 1-15 credit hours, maximum of 54 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6010 Chemical Engineering Seminar
Prerequisites: Consent of major professor.
Description: Advanced research and development topics. Offered for variable credit, 1 credit hour, maximum of 10 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6223 Advanced Chemical Engineering Thermodynamics
Prerequisites: CHE 5843.
Description: Phase equilibrium in multicomponent systems. Irreversible processes. Properties of fluids and the prediction of properties by statistical methods. Application of thermodynamics to unit operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

CHE 6440 Advanced Topics in Chemical Engineering
Description: Topics in chemical engineering unit operations in design. Advanced mathematical techniques in chemical engineering problems. May be repeated for credit if subject matter varies. Offered for variable credit, 3-6 credit hours, maximum of 9 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Chemical Engineering

CHE 6703 Research Methods in Chemical Engineering
Prerequisites: MS or PhD candidacy in chemical engineering or consent of instructor.
Description: Methods and skills required to successfully conduct chemical engineering research projects. Maintaining research records, experiment design, data validation, results presentation and research ethics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Chemical Engineering

Undergraduate Programs

- Chemical Engineering, BSCH (p. 2290)
- Chemical Engineering: Biomedical/Biochemical, BSCH (p. 2292)
- Chemical Engineering: Pre-Medical, BSCH (p. 2294)

Graduate Programs

The School of Chemical Engineering offers programs leading to the Master of Science and the Doctor of Philosophy degrees. A program of independent study and research on a project under the direction of a member of the Graduate Faculty will be satisfactorily completed by all graduate students. For the Master of Science candidate, the project will result in a thesis. For the Doctor of Philosophy candidate, the project will result in a dissertation.

Admission Requirements

Admission to either the Master of Science or Doctor of Philosophy degree program requires graduation from a chemical engineering curriculum approved by the ABET or a recognized equivalent from any international program.

Students with undergraduate degrees in other engineering disciplines or closely-related fields, such as chemistry, physics, mathematics, or biological sciences, are evaluated on an individual basis and a specific plan of study is developed for each student. Admission is competitive based on undergraduate GPA, GRE (for those without a chemical engineering degree approved by ABET or a recognized equivalent from any international program), and TOEFL (for international students), statement of background and goals, research experience and interests, and recommendations.

The Master of Science Degree

An MS degree in Chemical Engineering from Oklahoma State University signifies that the recipient has demonstrated advanced knowledge of fundamental chemical engineering topics. Additionally, an MS graduate has demonstrated the ability to integrate this knowledge to solve complex quantitative problems in a logical manner and effective.

Course Requirements

The general credit requirement is 30 credit hours beyond the BS degree, including 24 credit hours of classwork and six credit hours of thesis research. Students must be enrolled in CHE 6010, Chemical Engineering Seminar, during the Fall and Spring semesters. The courses taken must include:

Code	Title	Hours
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5303	Introduction to Science and Engineering Research	3

The Doctor of Philosophy Degree

A PhD in Chemical Engineering from Oklahoma State University signifies that the recipient has demonstrated a breadth of advanced knowledge in the subjects that form the foundation of chemical engineering. In addition, the graduate will have demonstrated the ability to independently and efficiently make creative, relevant, significant contributions at the forefront of knowledge in traditional or emerging fields within the Chemical Engineering discipline. The program is designed to prepare graduates with the widest possible career opportunities as a leader in industry and academia.

Breadth of advanced knowledge is demonstrated primarily by completion of a carefully prescribed "core" of class work. Additional courses may be selected by the candidate and/or prescribed by the Advisory Committee to assist in improving the candidate's fundamental knowledge base or to allow the candidate to acquire specialized knowledge for the completion of a dissertation research project. A "Qualifying Examination" is used to show that a student has the necessary core knowledge and the potential to carry out independent research to successfully complete a PhD in chemical engineering.

The PhD experience allows the candidate to develop and demonstrate the independent, self-directed, and creative productivity of an accomplished professional. As such, the PhD experience must go well beyond directed classroom instruction, in which the professor chooses the content, assigns specific homework and grades short-term projects. Personal attributes developed during the PhD program include curiosity, perseverance, creativity, productivity, leadership, effective communication, interpersonal skills, and the ability to develop a comprehensive understanding of a study and its relation to societal needs. Accordingly, qualifications for undertaking the PhD degree are predicated on attributes such as the above, plus indications that the candidate can meet the expectations of independent, accomplished, and creative engineering work. A formal "Preliminary Examination" is administered to determine the student's readiness to undertake the research component of the PhD program.

From the Preliminary Examination through the Final Defense of the Dissertation, the candidate develops and demonstrates the ability to: independently identify an area in which research is needed; assemble the relevant existing knowledge; develop the requisite experimental, computational, or theoretical skills; synthesize the existing knowledge, available skills and facilities into a scientifically defensible research plan; pursue the plan in an efficient and timely manner to realize a significant result; and organize and communicate his/her ideas and results in a professionally acceptable manner.

Course Requirements

The general credit requirement is 60 credit hours beyond the BS degree, including 24 credit hours of research and 36 credit hours of classwork. Students must be enrolled in CHE 6010, Chemical Engineering Seminar, during the Fall and Spring semesters. The courses must include:

Code	Title	Hours
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5303	Introduction to Science and Engineering Research	3

The emphasis in coursework during a graduate degree is on depth of understanding of subject matter and on preparing students for careers in the areas of interest. Depth is obtained through "core" courses that address knowledge that is expected of all chemical engineers, while

other courses are targeted toward a student's research and specific career interests. The core areas include fundamentals and applications of mathematical modeling, thermodynamics, chemical reaction engineering, and transport phenomena. The courses are structured to expand and add depth to a students' undergraduate knowledge.

The Introduction to Science and Engineering Research course is designed to accelerate student development towards the ability to define a research problem and develop a plan for its solution. Additional "elective" courses must be selected from graduate-approved courses in any department, with the advice and consent of a student's Research Advisor. During the Fall and Spring semesters, students will participate in a seminar class that provides an overview of – and appreciation for – the wide range of chemical engineering knowledge and applications. Students also complete "research" courses, which include working with their research Advisors on their MS thesis or PhD dissertation research projects.

Minors

- Petroleum Engineering (PETE), Minor (p. 2296)

Faculty

Heather Gappa-Fahlenkamp, PhD—Edward Bartlett Chair, Professor and Head
Professor and Anadarko Petroleum Chair in Chemical Engineering: Jindal Shah, PhD
Professor and BP (Amoco) Chair in Chemical Engineering: Jeffery L. White, PhD
Professor and Continental Resources Chair in Petroleum Engineering: Geir Hareland, PhD, PEng
Professor and Harold Courson Chair in Petroleum Engineering: Prem Bikkina, PhD
Professor and Lew & Myra Ward Chair: Clint P. Aichele, PhD, PE
Professor and Robert N. Maddox Professorship: Joshua D. Ramsey, PhD, PE
Professor and Samson Investment Chair in Petroleum Engineering: Mileva Radonjic, PhD
Professors: Sundar V. Madihally, PhD; D. Alan Tree, PhD
Associate Professors: Mohammed Al Dushaishi, PhD; Yu Feng, PhD; SeokJhin Kim, PhD
Assistant Professors: Hong Je Cho, PhD; Zheyu Jiang, PhD; Hunjoo Lee, PhD; Praveen Meduri, PhD

Chemical Engineering, BSCH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 123

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**41**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Engineering		
ENGR 1412	Introductory Engineering Computer Programming	2
ENGR 2421	Engineering Data Acquisition Controls Lab	1
Engineering Science		
ENSC 2113	Statics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3233	Fluid Mechanics	3
ENSC 3313	Materials Science	3
Mathematics		
MATH 2163	Calculus III	3
Chemistry		
CHEM 3053	Organic Chemistry I	3
Select one of the following:		5
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	
BIOC 3653 & BIOC 3723	Survey of Biochemistry and Biochemistry and Molecular Biology Laboratory	
Hours Subtotal		**28**
Major Requirements		
Mathematics		
MATH 2233	Differential Equations	3
or MATH 3263	Linear Algebra and Differential Equations	
Chemical Engineering		
CHE 2023	Introduction to Chemical Engineering Thermodynamics	3
CHE 2033	Introduction to Chemical Process Engineering	3
CHE 2581	Chemical Engineering Seminar I	1
CHE 3013	Rate Operations I	3
CHE 3113	Rate Operations II	3
CHE 3123	Chemical Reaction Engineering	3
CHE 3333	Introduction to Transport Phenomena	3
CHE 3543	Introduction to Chemical Process Analytics	3
CHE 3473	Chemical Engineering Thermodynamics	3
CHE 3581	Chemical Engineering Seminar II	1
CHE 4002	Chemical Engineering Laboratory I	2
CHE 4112	Chemical Engineering Laboratory II	2
CHE 4124	Chemical Engineering Design I	4
CHE 4224	Chemical Engineering Design II	4
CHE 4581	Chemical Engineering Seminar III	1
CHE 4843	Chemical Process Instrumentation and Control	3
Hours Subtotal		**45**
Controlled Electives		
Advanced Chemical Science		
Select 3 hours of the following:		3

CHE 3202 & CHE 3211	Interdisciplinary Design and Build for Chemical Systems I and Interdisciplinary Design and Build for Chemical Systems II
CHE 4073	Introduction to Tissue Engineering
CHE 4133	Introduction to Catalysis and Photocatalysis
CHE 4283	Bioprocess Engineering
CHE 4293	Biomedical Engineering
CHE 4323	Electrochemical Engineering
CHE 4343	Environmental Engineering
CHE 4493	Introduction to Molecular Modeling and Simulation
CHE 4523	Introduction to Colloid Processing
CHE 4533	Colloidal and Interfacial Phenomena
CHE 4543	Machine Learning for Chemical Processes
CHE 4603	Introduction to Membrane Separations
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers
CHE 4773	Introduction to Computational Fluid-Particle Dynamics
Restricted Electives	
Select 6 hours of upper-level course credit meeting School objectives [1, 2]	6
Hours Subtotal	**9**
Total Hours	**123**

1

Cannot use both ANSI 3423 Animal Genetics & BIOL 3023 General Genetics or BIOC 3653 Survey of Biochemistry & BIOC 3713 Biochemistry I.

2

Must be 3000 level or higher. Must meet requirements for professional development, technical knowledge, or life balance. May be fulfilled by upper-division coursework as part of the pursuit of a minor at OSU.

Graduation Requirements

1. A minimum GPA of 2.00 is required in all CHE coursework.
2. Must Receive a "C" or better in the following CHE courses: CHE 2023, CHE 2033, CHE 3013, CHE 3113, CHE 3123, CHE 3333, CHE 3473, CHE 3543, and CHE 4002.
3. The major engineering design experience, capstone course, is satisfied by CHE 4124 Chemical Engineering Design I and CHE 4224 Chemical Engineering Design II.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Chemical Engineering: Biomedical/ Biochemical, BSCH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 127

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**45**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Basic Science		
Engineering		
ENGR 1412	Introductory Engineering Computer Programming	2
ENGR 2421	Engineering Data Acquisition Controls Lab	1
Engineering Science		
ENSC 2113	Statics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3233	Fluid Mechanics	3
ENSC 3313	Materials Science	3
Mathematics		
MATH 2163	Calculus III	3
Chemistry		
CHEM 3053	Organic Chemistry I	3
Select one of the following:		5
CHEM 3153 & CHEM 3112	Organic Chemistry II and Organic Chemistry Laboratory	
BIOC 3653 & BIOC 3723	Survey of Biochemistry and Biochemistry and Molecular Biology Laboratory	
Hours Subtotal		**28**
Major Requirements		
Mathematics		
MATH 2233	Differential Equations	3
or MATH 3263	Linear Algebra and Differential Equations	
Chemical Engineering		
CHE 2023	Introduction to Chemical Engineering Thermodynamics	3
CHE 2033	Introduction to Chemical Process Engineering	3
CHE 2581	Chemical Engineering Seminar I	1
CHE 3013	Rate Operations I	3
CHE 3113	Rate Operations II	3
CHE 3123	Chemical Reaction Engineering	3
CHE 3333	Introduction to Transport Phenomena	3
CHE 3473	Chemical Engineering Thermodynamics	3
CHE 3543	Introduction to Chemical Process Analytics	3
CHE 3581	Chemical Engineering Seminar II	1
CHE 4002	Chemical Engineering Laboratory I	2
CHE 4112	Chemical Engineering Laboratory II	2
CHE 4124	Chemical Engineering Design I	4
CHE 4224	Chemical Engineering Design II	4
CHE 4581	Chemical Engineering Seminar III	1
CHE 4843	Chemical Process Instrumentation and Control	3
Hours Subtotal		**45**
Controlled Electives		

Advanced Chemical Science

Select 3 hours from the following:		3
CHE 3202	Interdisciplinary Design and Build for Chemical Systems I	
or CHE 3211	Interdisciplinary Design and Build for Chemical Systems II	
CHE 4073	Introduction to Tissue Engineering	
CHE 4133	Introduction to Catalysis and Photocatalysis	
CHE 4283	Bioprocess Engineering	
CHE 4293	Biomedical Engineering	
CHE 4323	Electrochemical Engineering	
CHE 4343	Environmental Engineering	
CHE 4493	Introduction to Molecular Modeling and Simulation	
CHE 4523	Introduction to Colloid Processing	
CHE 4533	Colloidal and Interfacial Phenomena	
CHE 4543	Machine Learning for Chemical Processes	
CHE 4603	Introduction to Membrane Separations	
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers	
CHE 4773	Introduction to Computational Fluid-Particle Dynamics	

Bioengineering/Bioscience Electives

Select 6 hours of the following:		6
BAE 3113	Biological Applications in Engineering	
BAE 4413	Food Engineering	
BIOC 3223	Physical Chemistry for Biologists	
BIOC 3653	Survey of Biochemistry [1]	
BIOC 3713	Biochemistry I [1]	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
BIOC 4113	Molecular Biology	
BIOC 5824	Biochemical Laboratory Methods	
BIOL 1604	Animal Biology	
BIOL 3023	General Genetics	
CHE 4283	Bioprocess Engineering	
CHE 4293	Biomedical Engineering	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	
MICR 3033	Cell and Molecular Biology	
Hours Subtotal		**9**
Total Hours		**127**

1

Cannot use both ANSI 3423 Animal Genetics & BIOL 3023 General Genetics or BIOC 3653 Survey of Biochemistry & BIOC 3713 Biochemistry I.

Graduation Requirements

1. A minimum GPA of 2.00 is required in all CHE coursework.
2. Must Receive a "C" or better in the following CHE courses: CHE 2023, CHE 2033, CHE 3013, CHE 3113, CHE 3123, CHE 3333, CHE 3473, CHE 3543, and CHE 4002.
3. The major engineering design experience, capstone course, is satisfied by CHE 4124 Chemical Engineering Design I and CHE 4224 Chemical Engineering Design II.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Chemical Engineering: Pre-Medical, BSCH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 128

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H) [1]		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS) [2]		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**45**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Basic Science		
BIOL 1604	Animal Biology	4
Engineering		
ENGR 1412	Introductory Engineering Computer Programming	2
ENGR 2421	Engineering Data Acquisition Controls Lab	1
Engineering Science		
ENSC 2113	Statics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3233	Fluid Mechanics	3
ENSC 3313	Materials Science	3
Chemistry		
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
Hours Subtotal		**29**
Major Requirements		
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
or MATH 3263	Linear Algebra and Differential Equations	
Chemical Engineering		
CHE 2023	Introduction to Chemical Engineering Thermodynamics	3
CHE 2033	Introduction to Chemical Process Engineering	3
CHE 2581	Chemical Engineering Seminar I	1
CHE 3013	Rate Operations I	3
CHE 3113	Rate Operations II	3
CHE 3123	Chemical Reaction Engineering	3
CHE 3333	Introduction to Transport Phenomena	3
CHE 3473	Chemical Engineering Thermodynamics	3
CHE 3543	Introduction to Chemical Process Analytics	3
CHE 3581	Chemical Engineering Seminar II	1
CHE 4002	Chemical Engineering Laboratory I	2
CHE 4112	Chemical Engineering Laboratory II	2
CHE 4124	Chemical Engineering Design I	4
CHE 4224	Chemical Engineering Design II	4
CHE 4581	Chemical Engineering Seminar III	1
CHE 4843	Chemical Process Instrumentation and Control	3
Hours Subtotal		**48**
Controlled Electives		
Advanced Bioscience Elective		
Select three hours from the following:		3
BIOL 3023	General Genetics	
or MICR 3033	Cell and Molecular Biology	

CHE 3202 & CHE 3211	Interdisciplinary Design and Build for Chemical Systems I and Interdisciplinary Design and Build for Chemical Systems II	
CHE 4073	Introduction to Tissue Engineering	
CHE 4133	Introduction to Catalysis and Photocatalysis	
CHE 4183	Drug Delivery	
CHE 4283	Bioprocess Engineering	
CHE 4293	Biomedical Engineering	
CHE 4323	Electrochemical Engineering	
CHE 4343	Environmental Engineering	
CHE 4493	Introduction to Molecular Modeling and Simulation	
CHE 4523	Introduction to Colloid Processing	
CHE 4533	Colloidal and Interfacial Phenomena	
CHE 4543	Machine Learning for Chemical Processes	
CHE 4603	Introduction to Membrane Separations	
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers	
CHE 4773	Introduction to Computational Fluid-Particle Dynamics	
Bioengineering/Bioscience Electives		
Select 3 hours of the following:		3
BAE 3113	Biological Applications in Engineering	
BAE 4413	Food Engineering	
BIOC 3223	Physical Chemistry for Biologists	
BIOC 3653	Survey of Biochemistry	
BIOC 3713	Biochemistry I	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
BIOC 4113	Molecular Biology	
BIOL 3023	General Genetics	
BIOL 3214	Human Anatomy	
CHE 4283	Bioprocess Engineering	
CHE 4293	Biomedical Engineering	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Hours Subtotal		**6**
Total Hours		**128**

[1]

Humanities courses - should select one from ENGL and one ART, ENGL, FLL, MUSI, PHIL or TH to also meet medical school requirements.

[2]

Social & Behavioral Sciences courses – should select from ANTH, PSYC, or SOC to also meet medical school requirements.

Graduation Requirements

1. A minimum GPA of 2.00 is required in all CHE coursework.
2. Must Receive a "C" or better in the following CHE courses: CHE 2023, CHE 2033, CHE 3013, CHE 3113, CHE 3123, CHE 3333, CHE 3473, 3543, and CHE 4002.
3. The major engineering design experience, capstone course, is satisfied by CHE 4124 Chemical Engineering Design I and CHE 4224 Chemical Engineering Design II.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Petroleum Engineering (PETE), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Professor Prem Bikkina, prem.bikkina@okstate.edu, 420 Engineering North 405-744-5280

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
GEOL 3413	Petroleum Geology for Engineers	3
GEOL 4323	Applied Well Log Analysis for Engineers	3
PETE 4303	Petroleum Rocks and Fluids	3
PETE 4313	Drilling and Well Completions	3
PETE 4333	Production Engineering	3
PETE 4343	Reservoir Engineering and Well Testing	3
Total Hours		**18**

- GEOL 3413 Petroleum Geology for Engineers is a prerequisite for all other courses
- PETE 4303 Petroleum Rocks and Fluids is a prerequisite for PETE 4313 Drilling and Well Completions, PETE 4333 Production Engineering and PETE 4343 Reservoir Engineering and Well Testing.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Civil and Environmental Engineering

Civil engineers build the future. The exceptional diversity of professional practice options in civil and environmental engineering presents many career opportunities for students.

Civil engineers focus on infrastructure - the design, construction, management, alteration and utilization, which allows society to function. Civil engineers plan, design and construct, highways, waterway and railway systems, harbors and shipping facilities, systems for the treatment and distribution of water and for the collection and treatment of municipal and industrial waste, dams and hydroelectric works, airports and terminals, structures of every kind including buildings, bridges, towers, industrial plants, tunnels and subway systems, processes for the control of water and air pollution, and many other works of general benefit to society.

The curriculum in civil engineering is based on courses in mathematics, physical sciences and engineering sciences. On this foundation, required courses equip the student with the basic skills needed for the professional practice of civil engineering and provide the tools for more advanced study. Engineering theory and principles are developed in a way that will encourage their application to the practical solution of problems.

The School provides a curriculum that is effective and balanced among the major areas of civil engineering practice. Design capabilities are developed throughout the curriculum, culminating in a comprehensive senior design experience, incorporating much of the previous coursework. Some degree of specialization is provided through the choice of elective courses in structures, engineering mechanics, transportation engineering, soil mechanics and foundations, construction engineering and management, environmental engineering and water resources. There is a designated option for those students wishing to concentrate more heavily in the environmental area of practice. In addition, the School offers a minor in Environmental Engineering. Program curricula requirements are outlined in the publication Undergraduate Program and Requirements. The Bachelor of Science in Civil Engineering degree is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org/.

Program Educational Objectives

The Bachelor of Science in Civil Engineering degree program educates and prepares engineers who a few years after graduation will be:

- Contributing to society through the practice of civil engineering in a variety of contexts, including the protection of public health, safety, and welfare and the development of sustainable engineering solutions;
- Effectively applying and adapting the technical knowledge, engineering principles, communication skills and personal attributes necessary to be successful in the civil engineering profession;
- Advancing within their profession, including attaining professional licensure and positions of leadership;
- Exhibiting life-long learning, including the pursuit of advanced degrees; and
- Engaging with and advocating for the civil engineering profession.

Student Outcomes

The curriculum is designed to enable students to satisfy the program educational objectives in conjunction with the student outcomes. These outcomes state that graduates of the program will have:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Courses

CIVE 2041 Civil and Environmental Engineering Seminar
Prerequisites: Sophomore standing or department permission required.
Description: An introduction to the importance of communication, professional ethics, knowledge of contemporary issues, and the role these play in developing a broad education. Emphasis will be placed on understanding the impact of engineering solutions in a global and societal context. The various sub-disciplines within the fields of Civil and Environmental Engineering will also be presented.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 2081 Environmental Chemistry for Engineers
Prerequisites: CHEM 1414 or CHEM 1314 with minimum grade of "C."
Description: This course applies the material covered in a general chemistry course for engineers to the skills needed for environmental engineering. In achieving these objectives, this course also supports Outcome 1 of the BSCE degree program accreditation requirements. (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3413 Structural Analysis
Prerequisites: Minimum grade of "C" in ENSC 2143.
Description: Analysis of internal forces and deflections of structures subjected to static loading. Beams, trusses, and framed structures analyzed by appropriate classical methods. Classical methods and modern computer procedures for the analysis of statically indeterminate structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3513 Structural Steel Design
Prerequisites: CIVE 3413 with minimum grade of C.
Description: Introduction to the design of structural steel members and connections in accordance with AISC specifications. May not be used for degree credit with ARCH 3323. May not be used for degree credit with CIVE 5473 and ARCH 3323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3523 Reinforced Concrete Design
Prerequisites: CIVE 3413 with minimum grade of C.
Description: Introduction to the design of reinforced concrete elements in accordance with the strength design requirements of the ACI Building code. May not be used for degree credit with ARCH 4123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3614 Engineering Surveying
Prerequisites: Minimum grade of "C" required in MATH 2123 or MATH 2144.
Description: Principles and techniques of vertical and horizontal measurements related to engineering and construction projects. Linear and angular measurements, differential leveling, traverses, topographic surveys, construction surveying, horizontal and vertical curves, earthwork quantities and design of route systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3623 Engineering Materials Laboratory
Prerequisites: ENSC 2143 with minimum grade of "C."
Description: Introduction on material properties and related design criteria for common construction materials: structural steel, wood and timber, aggregates, portland cement and concrete, asphalt binder and concrete. Discussion on material specific topics on fabrication methods; mechanical and non-mechanical properties; use and applications; standards, testing and quality control measures; selection and design criteria. Laboratory exercises supplement lecture theory and provide "hands-on" experience in performing standard tests.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3633 Transportation Engineering
Prerequisites: CIVE 3614 with minimum grade of "C", and minimum grade of "C" in STAT 4073 or STAT 4033 or concurrent enrollment.
Description: Planning, design and operations of transportation facilities. Vehicle characteristics and human factors in design. Traffic stream variables and their measurement techniques. Basic traffic flow models. Highway and street intersection capacity and level of service. Traffic control concepts. Transportation systems management. Application of statistical analysis and operations research to analyze transportation problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3714 Introduction to Geotechnical Engineering
Prerequisites: Minimum grade of "C" in ENSC 2143, or department permission required.
Description: Physical and mechanical properties of soils, including grain size analysis, plasticity, permeability, consolidation, and shear strength. Use of physical and mechanical properties to calculate stresses in a soil mass, lateral earth pressures and bearing capacity. Laboratory tests conducted to determine the physical and mechanical soil properties needed for application in geotechnical design. Course previously offered as CIVE 3713.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 3813 Environmental Engineering Science
Prerequisites: (CHEM 1414 or CHEM 1314 plus CIVE 2081 OR CHEM 1515) and ENSC 3233 with minimum grade of "C".
Description: Fundamentals of environmental chemistry, biogeochemical cycles, materials and energy balances, water quality, solid waste, air pollution, global climate change, sustainability, and risk assessment. Techniques for migration, water and wastewater treatment, solid and hazardous waste management, and air pollution abatement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3833 Applied Hydraulics
Prerequisites: Minimum grade of "C" in ENSC 3233, and (CHEM 1414 or CHEM 1515).
Description: Basic hydraulic principles and their application in civil engineering problems. Analyses of water distribution networks, open channels, storm-water management and wastewater collection systems, water pumps, hydraulic models, hydraulic measurements, treatment plant hydraulics and hydraulic structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3843 Hydrology I
Prerequisites: Minimum grade of "C" in ENSC 3233 and (CHEM 1414 or CHEM 1515), and minimum grade of "C" in STAT 4033 or STAT 4073.
Description: Basic principles of surface groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events, application of hydrologic models. May not be used for degree credit with BAE 4314.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 3853 Environmental Engineering Laboratory
Prerequisites: CIVE 3813 with minimum grade of "C".
Description: Performance of experiments with benchscale environmental engineering unit operations, review of chemical principles and analyses important to the evaluation of these and other environmental engineering applications. Emphasis on the development of experimental results that can be used in the design of full-scale units. May not be used for degree credit with CIVE 5813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4010 Civil Engineering Research
Prerequisites: Senior standing or consent of instructor.
Description: Research and investigation of civil engineering problems. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 4013 Aquatic Chemistry
Prerequisites: Senior standing and minimum grade of "C" in CHEM 1414 or CHEM 1515, and minimum grade of "C" in CIVE 3813.
Description: Application of chemical principles to environmental problems. Chemical kinetics, chemical equilibrium, acid-base chemistry, development of pc-pH diagrams, and coordination chemistry. Precipitation and dissolution reactions and oxidation-reduction reactions. Course is a senior elective. May not be used for degree credit with CIVE 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4033 GIS Applications for Water Resources
Prerequisites: Senior standing.
Description: Application of theoretical and practical components of geographic information system for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems. Course is a senior elective. May not be used for degree credit with CIVE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4041 Engineering Practice
Prerequisites: Senior standing.
Description: Topics relevant to the professional practice of civil and environmental engineering will be introduced, to include management principles, project management, and the laws that impact the practice of engineering, such as OSHA and ADA. Emphasis will be placed on written communication skills to include resumes, letters of introduction, and job interviews. The advantages of professional registration and technical/ professional society membership will be presented as well as discussions of professional ethics, income taxes and investments. Course previously offered as CIVE 4042.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4043 Senior Design
Prerequisites: Minimum grades of “C” in each: CIVE 3623 and CIVE 3633 and CIVE 3714 and CIVE 3833; and within last two semesters of program completion. Minimum grade of "C" in CIVE 3513 or CIVE 3523.
Description: Major comprehensive design experience using the team approach. Industry practitioners provide design projects and analyze and critique results. Extends the undergraduate experience and provides the student with opportunities to analyze and design complex structures. Capstone course. May not be used for degree credit with CIVE 4143.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4050 Special Topics in Civil & Environmental Engineering
Prerequisites: Senior standing and within last 2 semesters of program completion.
Description: New courses offered in CIVE that have yet to be assigned a permanent number. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 4053 Transportation Geotechnics
Prerequisites: CIVE 3714 minimum grade of "C".
Description: This course focuses on the application of geotechnical engineering concepts to the analysis, design, and construction of transportation infrastructure. Topics covered include: soil classification systems, soil variability; subgrade evaluation procedures, repeated loading behavior of soils; soil compaction and field control; and subgrade stability for transportation facility engineering. May not be used for degree credit with CIVE 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4063 Introduction to Railroad Engineering
Prerequisites: Senior standing and CIVE 3633 wIth minimum grade of "C".
Description: This course provides civil engineering students a technical transportation course in Railroad Engineering. It covers a wide spectrum of railway engineering, including the basic principles, railroad design, construction, operation, evaluation and maintenance of rail infrastructure and networks. The students are expected to develop small group skills through team homework assignments and class interaction. May not be used for degree credit with CIVE 5063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4083 Applied Statistics for Civil Engineers
Prerequisites: Senior standing, and CIVE 3633 with minimum grade of "C," and STAT 4033 or STAT 4073 with minimum grade of "C."
Description: This course covers subjects including statistical fundamentals; continuous, count, discrete dependent variable models, random parameter models, and Bayesian modeling that are widely used in civil, particularly transportation engineering. Course is a senior elective. May not be used for degree credit with CIVE 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4093 Transportation Safety and Analysis
Prerequisites: Senior standing and CIVE 3633 with minimum grade of "C".
Description: This course introduces fundamental concepts for performing traffic safety analyses, including safety management systems, different safety countermeasures, development of statistical models with countermeasures and their effectiveness, economic analyses, and crash investigation. Students should be prepared to apply these important safety concepts in professional practice. May not be used for degree credit with CIVE 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4103 Construction Simulation
Prerequisites: Senior standing and CIVE 4273 with minimum grade of "C."
Description: This course introduces students to effective ways of modeling construction processes and technologies. It provides an investigation of quantitative methods used for the design and analysis of construction operations to maximize productivity and minimize resource idleness. It includes discussions on queueing theory, line-of-balance techniques, linear programming and simulation. Comprehensive group projects that involve modeling and analyzing actual construction operations will be integral parts of this course. Course is a senior elective. May not be used for degree credit with CIVE 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4113 Construction Business Management
Prerequisites: Senior standing.
Description: Fundamental theories and applied methods of financial management of construction companies. The spectrum of the present and future practice of business management at the construction company level. Basic construction business operations in the context of construction accounting, financial management, cash flow analysis, financial planning, and risk analysis. May not be used for degree credit with CIVE 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4123 The Legal & Regulatory Environment of Civil Engineering
Prerequisites: Professional School.
Description: The U.S. and Oklahoma court systems. Tort law and labor law having an impact on engineering and construction. Union organization and activities. Government contracting and the laws governing it. Discussions of the Occupation Safety and Health Act and Americans with Disabilities Act. In-Depth look at environmental policy, laws, and regulations affecting engineering, including NEPA, CWA, SDWA, RCRA, CERCLA and CAA Water law. May not be used for degree credit with CIVE 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4133 Construction Contracts and Specifications
Prerequisites: Senior standing.
Description: The nature of contracts. Contract documents. Master format. Principles of specification writing. Contract types. Bonds and insurance. Bidding. Subcontracting. Disputes and disputes resolution. Course is a senior elective. May not be used for degree credit with CIVE 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4143 Environmental Engineering Design
Prerequisites: Minimum grade of "C" in each; CIVE 3714 and CIVE 3833 and CIVE 3853 and CIVE 4833, and within last semester of program completion.
Description: Actors involved in the design of engineered environmental systems. Solving “real world” environmental engineering problems. Design experience using decision-making techniques, integrating and expanding upon current knowledge, and defending decisions made. Economic, environmental, social, and regulatory aspects of environmental engineering design. Capstone course. May not be used for degree credit with CIVE 4043.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4153 Contract Administration
Prerequisites: Senior standing.
Description: Methods and techniques of tracking and control of construction projects. Evaluation of current research findings to contract implementation. Course is a senior elective. May not be used for degree credit with CIVE 5153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4163 Construction Equipment Management
Prerequisites: Senior standing.
Description: Analysis of construction equipment. Performance under various operating conditions. Application of engineering fundamentals to construction methods. Selection and costs of equipment, prediction of equipment production rates, and unit costs of work in place. Course is a senior elective. May not be used for degree credit with CIVE 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4183 Construction Estimating
Prerequisites: Senior standing, and concurrent prerequisite CIVE 4273 with minimum grade of "C."
Description: The construction industry, its makeup, operation, estimating, and bidding procedures. Theory and practice of estimating materials, labor, equipment, and overhead costs for various types of construction. Emphasis on preliminary cost estimates during the conceptual design phase of a construction project. May not be used for degree credit with CIVE 5183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4193 BIM for Construction
Prerequisites: Senior standing, and concurrent prerequisite CIVE 4273 with minimum grade of "C."
Description: The course focuses on advanced information systems used to control and predict project performance (cost and schedule) in construction. Building information Modeling is examined as a systems approach of integrating design and construction for the benefit of developing construction work packages, 4D simulations, clash detection, and the process of implementing BIM on an enterprise to project level. May not be used for degree credit with CIVE 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4243 Use and Design of Geosynthetics
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Description of types of geosynthetics available for engineering uses. Pertinent engineering properties required to design for various functions, basic design methodology for geosynthetics for various functions, and construction and performance considerations. May not be used for degree credit with CIVE 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4273 Construction Engineering and Project Management
Prerequisites: Senior standing and ENGR 1412 with minimum grade of "C."
Description: Principles and practice of construction engineering and project management. Project planning, development of cost estimates and project schedules, construction methods and fundamental terminology used in the engineering and construction industry. May not be used for degree credit with CIVE 5073.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4283 Numerical Methods in Geotechnical Engineering
Prerequisites: CIVE Professional School and CIVE 3714 with minimum grade of C.
Description: The course covers a brief review of some fundamental principles of finite element method and its application to problems in geotechnical engineering. Students will use computer programs to perform analysis of geotechnical earth structures including flow through porous media, unsaturated and expansive soils. May not be used for degree credit with CIVE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4293 Design and Analysis of Earth Retaining Structures
Prerequisites: CIVE professional school and CIVE 3714 minimum grade of C.
Description: Lateral earth pressure theories. Use of earth retaining structures in civil engineering construction. Design and analysis of gravity, sheet pile, soil nail, and MSE walls by hand calculation and with a computer program. May not be used for degree credit with CIVE 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4303 Systems Analysis for Civil Engineers
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Synthesis of systems modeling and simulation techniques, mathematical optimization procedures, and evaluation tools of multi-attributed systems including utility theory and decision analysis. Mathematical optimization techniques in the areas of resource allocation, transportation and water resources systems planning, structural design, construction management, and environmental and ecological problems. Course is a senior elective. May not be used for degree credit with CIVE 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4313 Highway Traffic Operations
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Level of service, capacity and service volume concepts. Operational characteristics of uninterrupted-flow and interrupted-flow of traffic facilities. The 1985 HCM procedures for analyzing the capacity of freeways, multi-lane and two-lane rural highways, urban arterials, signalized and unsignalized street intersections, and transit and pedestrian facilities. Administrative and planning actions for congestion management. Design alternatives and improvement strategies for effective use of urban arterial street width. Course is a senior elective. May not be used for degree credit with CIVE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4323 Civil Infrastructure Systems
Prerequisites: Senior standing and CIVE 3633 with minimum grade of "C".
Description: The course presents a unified approach to the management of civil infrastructure systems. Topics of discussion include various aspects of asset management analytical methods, data collection technologies, life cycle cost, prioritization and optimization, climate change and sustainability. Types of infrastructure considered in the course include pavements (roads and airports), bridges, drainage and sewer systems, water supply systems, and power supply facilities. May not be used for degree credit with CIVE 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4343 Urban Transportation Planning
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Determinants of demand for transportation and models for demand forecasting. Performance characteristics of transportation systems and models for performance. Quantitative analysis of multimodal transportation networks including prediction of flow patterns and service quality. Evaluation of social, environmental, and political impacts of transportation decisions. Application of systems analysis techniques to the generation, evaluation, and selection of alternative transportation systems. Course is a senior elective. May not be used for degree credit with CIVE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4363 Design and Planning of Airports
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Nature of civil aviation. Aircraft characteristics and performance related to airport planning and design. Air traffic control and navigation systems. Basics of airport planning and airport demand forecasting. Analysis of airport capacity and delays. Runway length requirements. Configuration and geometric design of runways, taxiways, holding aprons, and landing areas. Airport lighting, marking, and signing. Drainage and noise control. Course is a senior elective. May not be used for degree credit with CIVE 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4373 Design of Traffic Control Systems
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Traffic control systems design, available technological options, and range of agency needs. Design of vehicle detectors, controllers, communications links, signal display hardware, and wiring. Development of timing plans using computer simulation models. Freeway surveillance and control: ramp metering, incident detection, and motorist information systems. Preparation of contractual documents and construction supervision. Course is a senior elective. May not be used for degree credit with CIVE 5373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4383 Geometric Design of Highways
Prerequisites: Senior standing and CIVE 3633 or concurrent enrollment.
Description: Geometric, functional, and aesthetic aspects of roadway design. Alignment, sight distance, at-grade intersections, interchanges, and freeway systems. Design tools and techniques. Course is a senior elective. May not be used for degree credit with CIVE 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4403 Advanced Strength of Materials
Prerequisites: Senior standing and CIVE 3413 with minimum grade of "C".
Description: General states of stress and strain, theories of failure, energy principles, beam bending, shear center, torsion of prismatic shafts, beams on elastic foundations, plates and shells, elastic stability. May not be used for degree credit with CIVE 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4413 Classical and Matrix Methods of Structural Analysis
Prerequisites: Senior standing and CIVE 3413 with minimum grade of "C".
Description: Advanced analysis of indeterminate frames, trusses and arches by classical, numerical, energy, and stiffness methods with emphasis on methods with emphasis on methods for hand computations and development of matrix analysis. May not be used for degree credit with CIVE 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4483 Concrete Testing and Monitoring Methods
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C," or CIVE 3523 with minimum grade of "C."
Description: Standard and advanced concrete testing and monitoring methods used for strength assessment of concrete, along with other various material properties and integrity issues in the laboratory and in the field. Principles, applications and limitations, procedures, equipment operation and result interpretation are discussed for each destructive and non-destructive evaluation technique reviewed: mechanical, chemical, electrical, ultrasonic and acoustics, thermography, radiography. This course includes a laboratory session to develop manipulation skills and review concepts presented in lectures. Course is a senior elective. May not be used for degree credit with CIVE 5483.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4493 Infrastructure Condition Assessment and Repair
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C," and CIVE 3523 with minimum grade of "C."
Description: The course provides guidelines on how to conduct a practical condition assessment of reinforced concrete infrastructure, which includes discussions on performing condition surveys, preliminary and detailed investigations; along with concrete properties, distress features and associated causes, diagnostics testing; reporting findings and recommendation. It also includes a discussion in basic repair methods and materials. Course is a senior elective. May not be used for degree credit with CIVE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4513 Advanced Reinforced Concrete Design
Prerequisites: Senior standing and CIVE 3523 with minimum grade of "C".
Description: Advanced topics in reinforced concrete design with emphasis on frames, slabs and earthquake resistant structures. May not be used for degree credit with CIVE 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4523 Advanced Steel Structure Design
Prerequisites: Senior standing and CIVE 3513 with minimum grade of "C".
Description: Advanced topics in steel design such as plastic design, plate girders, composite design, fatigue and fracture, stability and bracing design. May not be used for degree credit with CIVE 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4533 Prestressed Concrete
Prerequisites: Senior standing and CIVE 3523 with minimum grade of “C”.
Description: Design of simple and continuous prestressed concrete beams. Behavior under overload. Calculation of prestress losses and deflections. May not be used for degree credit with CIVE 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4563 Structural Dynamics
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3413 and ENSC 2123.
Description: Analysis of linear, elastic damped and undamped systems with single and multiple degrees of freedom undergoing free forced vibration. Lumped and distributed mass systems. Computational techniques to numerically integrate the equations of motion. May not be used for degree credit with CIVE 5563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4573 Timber Design
Prerequisites: Senior standing and CIVE 3513 or CIVE 3523 with minimum grade of "C."
Description: Design of structural timber members, assemblies, and connections in accordance with ANSA/AF&PA, NDS specifications. Design, build, and test timber structure. Course is a senior elective. May not be used for degree credit with CIVE 5573.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4583 Advanced Construction Materials
Prerequisites: CIVE Professional School and CIVE 3623 with minimum grade of “C.”
Description: Undergraduate elective course addresses advanced topics on fundamental material properties and related design criteria for products commonly used in civil construction: timber and engineered wood products, metals and alloys, polymers and fiber reinforced composites; and glass. Lectures will include material specific topics on: physical, chemical and mechanical properties; fabrication methods; use and applications; standards, testing and quality control measures; selection and design criteria. May not be used for degree credit for CIVE 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4653 Asphalt Materials and Mix Design
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C".
Description: Principles of asphalt concrete mix design including material characteristics and performance. Evaluation of Superpave mix design methods. Asphalt cements, rubberized asphalt polymer asphalts, emulsions, cutbacks, and aggregates. Laboratory sessions focused on the engineering properties of the materials discussed. May not be used for degree credit with CIVE 5653.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4673 Concrete Materials and Mix Design
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C."
Description: Principles of concrete mix design, including material characteristics, strength and durability requirements, environmental effects and forensic analysis. ACI and PCA mix design procedures. Laboratory on theoretical and practical aspects of concrete technology. Course is a senior elective. May not be used for degree credit with CIVE 5673.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4693 Pavement Design and Analysis
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3633 and CIVE 3623.
Description: Principles of pavement design, including stress analyses, load and environmental effects, and material characteristics. AASHTO, PCA and AI methods of pavement design. Computer methods practical aspects of life cycle cost analyses and construction methods. May not be used for degree credit with CIVE 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4711 Basic Soils Testing Laboratory
Prerequisites: Non-CIVE majors only, ENSC 2113 with minimum grade of "C".
Description: Laboratory measurements of the physical and mechanical properties of soils; grain size distribution, plasticity, permeability, compaction, compressibility, and shear strength.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Civil & Environ. Eng

CIVE 4723 Foundation Engineering
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Types of structural foundations including footings, mats, rafts, piles and drilled shafts. Site characteristics, exploration programs, field data, test results, construction materials and methods as basis for selection of type of foundation and design. Geotechnical design procedures and considerations. Course is a senior elective. May not be used for degree credit with CIVE 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4733 Soil Mechanics
Prerequisites: Senior standing and CIVE 3714 with minimum grade of "C."
Description: Application of soil mechanics principles and concepts in geotechnical areas of permeability and seepage, settlement analysis, bearing capacity, lateral earth pressures and retaining walls, slope stability, and metastable soils. Course is a senior elective. May not be used for degree credit with CIVE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4743 Project Engineering and Management
Prerequisites: Senior standing and concurrent prerequisite CIVE 4273 with minimum grade of "C".
Description: Management of the design and construction of civil engineering projects. Topics include owner's study, formation of project teams, design coordination, construction, and project closeout. Course is a senior elective. May not be used for degree credit with CIVE 5143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4753 Engineering Soil Stabilization
Prerequisites: Senior standing and CIVE 3714 with minimum grade of “C.”
Description: Theoretical and practical aspects of engineering soil stabilization as a method for improving and upgrading low quality and unstable soils for engineering purposes. Use of time, fly ash, portland cement, asphalt, and other physical and chemical admixtures. Application of deep foundation stabilization methods such as preloading, deep compaction, injection and reinforcement. Course is a senior elective. May not be used for degree credit with CIVE 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4773 Soil-Structure Interaction
Prerequisites: Senior standing and CIVE 3714 with minimum grade of “C.”
Description: The mechanical interaction effects between soils and structures using suitable engineering procedures such as finite differences and finite element methods. Civil engineering problems where interaction effects are most dominant including grade beams (beams on elastic foundation), axially- and laterally-loaded piles, cantilever, and anchored sheet pile walls. Course is a senior elective. May not be used for degree credit with CIVE 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4833 Unit Operations in Environmental Engineering
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3813.
Description: Fundamental principles of water and wastewater treatment, including basic theory and development of design parameters. Application of these to the design of unit operations and processes in various treatment plants. May not be used for degree credit with CIVE 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4853 Bioremediation
Prerequisites: Senior standing and minimum grade of "C" in MATH 2153, and (CIVE 4903 or MICR 4013).
Description: Science and technologies for the site selection and bioremediation of hazardous contamination in soil, sediment and groundwater systems. Includes geochemical reactions and analysis, pollutant fate and transport modeling, microbial degradation mechanisms, natural attenuation, and measurements of success. May not be used for degree credit with CIVE 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4863 Advanced Unit Operations in Environmental Engineering
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C."
Description: Theory and design of advanced physical-chemical water and wastewater treatment processes applied to municipal, industrial, and hazardous waste situations. Course is a senior elective. May not be used for degree credit with CIVE 5863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4873 Air Pollution Control Engineering
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C."
Description: Causes, effects, and control of atmospheric pollution. Course is a senior elective. May not be used for degree credit with CIVE 5873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4883 Introduction to Environmental Modeling
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3813 and CIVE 3833.
Description: Intended as an introductory course for senior undergraduate students to the fundamentals of environmental modeling. Develops material necessary to construct models capable of identifying contaminant distributions at future times and space for water and air pollution applications. Advanced topics such as stochastic modeling, ecological risk assessment, neural modeling and spatial statistical analysis among others will be presented according to the backgrounds and interests of the enrolled students. May not be used for degree credit with CIVE 5833 and BAE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4903 Microbiology for Engineers
Prerequisites: Senior standing.
Description: Microbiology relates to many aspects of engineering, primarily environmental engineering. The class will cover the roles of bacteria in water and wastewater treatment, the bioremediation of hazardous substances, the mechanisms of antibiotic resistance, the molecular tools for studying and tracking bacteria, and special topics with regards to bacteria in common engineered environments. Basic microbiology and biochemistry will be covered throughout the course providing necessary background. May not be used for degree credit with CIVE 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4913 Groundwater Hydrology
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3843.
Description: Theory of groundwater movement, storage, exploration and pumping tests. Design of groundwater recovery and recharge systems. May not be used for degree credit with CIVE 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4923 Environ Risk Assessment
Prerequisites: Professional School and minimum grade of “C” in CIVE 3813 and STAT 4033 or STAT 4073 with minimum grade of “C”.
Description: Environmental risk assessment and management. Applies elements of statistics, probability and environmental simulation to determine the public health and ecological risks from activities of humans. May not be used for degree credit with CIVE 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4933 Water Treatment
Prerequisites: Senior standing and CIVE 4833 with minimum grade of "C".
Description: Theory, design, and operation of water treatment plants. Sizing of various unit processes. Water treatment plant control procedures. May not be used for degree credit with CIVE 5933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4943 Risk and Failure Analysis of Dams
Prerequisites: CIVE Professional School.
Description: Analyzing, evaluating and managing risks to Dams and providing a rigorous, systematic, and thorough approach to sustain and support of safety aspects. Evaluating CUASI Data to support aspects of the environment near and around Dams. Using new technologies such as ArcInfo to provide solutions to problems. May not be used for degree credit with CIVE 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4953 Biological Waste
Prerequisites: Senior standing and CIVE 4833 with minimum grade of C.
Description: Fundamentals of microbial systems applied to waste treatment processes. Standard suspended-growth and fixed biofilm wastewater and sludge suspensions and treatment system design calculations. May not be used for degree credit with CIVE 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4963 Open Channel Flow
Prerequisites: Senior standing and minimum grade of "C" in CIVE 3833.
Description: Open channel hydraulics, energy and momentum concepts, resistance, channel controls and transitions, flow routing and sediment transport. May not be used for degree credit with CIVE 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 4973 Concrete Durability
Prerequisites: Senior standing and CIVE 3623 with minimum grade of "C."
Description: This course investigates the mechanisms, test methods, and evaluation procedures for the primary mechanisms for durability issues in concrete. Emphasis is placed on providing a practical and theoretical overview of the topics. Special topics may be covered with the interest of the students. Course is a senior elective. May not be used for degree credit with CIVE 5273.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 4983 Residuals & Solid Waste Management
Prerequisites: Professional School and CIVE 4833 with minimum grade of "C".
Description: Theory, design and operation of systems for handling, treatment, and disposal of process sludge (water treatment, wastewater treatment, industrial) and solid wastes. Potential material reclamation options. May not be used for degree credit with CIVE 5883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5000 Master's Thesis
Description: A student studying for a master's degree will enroll in this course for a total of 6 credits if a thesis is to be written. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5010 Civil Engineering Seminar
Description: Review of literature of major fields of civil engineering. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5013 Aquatic Chemistry
Description: Application of chemical principles to environmental problems. Chemical kinetics, chemical equilibrium, acid-base chemistry, development of pc-pH diagrams, and coordination chemistry. Precipitation and dissolution reactions and oxidation-reduction reactions. CHEM 1515 or equivalent background required. May not be used for degree credit with CIVE 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5020 Civil Engineering Research
Prerequisites: Graduate standing and approval of major professor.
Description: Research and investigations other than thesis studies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5030 Engineering Practice
Prerequisites: Approval of adviser.
Description: Professional supervised civil engineering practice involving authentic projects for which the student assumes a degree of professional responsibility. Activities must be approved in advance by the student's adviser and may consist of engineering experience on-campus or off-campus, or both. Periodic reports, both oral and written, are required as specified by the adviser. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5033 GIS Applications for Water Resources
Prerequisites: Graduate standing or professional school.
Description: Application of theoretical and practical components of geographic information system for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5043 Risk and Failure Analysis of Dams
Prerequisites: Graduate standing or professional school.
Description: Analyzing, evaluating and managing risks to Dams and providing a rigorous, systematic, and thorough approach to sustain and support of safety aspects. Evaluating CUASI Data to support aspects of the environment near and around Dams. Using new technologies such as ArcInfo to provide solutions to problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5053 Transportation Geotechnics
Prerequisites: Graduate standing.
Description: This course focuses on the application of geotechnical engineering concepts to the analysis, design, and construction of transportation infrastructure. Topics covered include: soil classification systems, soil variability; subgrade evaluation procedures, repeated loading behavior of soils; soil compaction and field control; and subgrade stability for transportation facility engineering. May not be used for degree credit with CIVE 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5063 Introduction to Railroad Engineering
Prerequisites: Graduate standing.
Description: This course provides civil engineering students a technical transportation course in Railroad Engineering. It covers a wide spectrum of railway engineering, Including the basic principles, railroad design, construction, operation, evaluation and maintenance of rail infrastructure and networks. The students are expected to develop small group skills through team homework assignments and class interaction. May not be used for degree credit with CIVE 4063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5073 Construction Engineering and Project Management
Description: Principles and practice of construction engineering and project management. Project planning, development of cost estimates and project schedules, construction methods and fundamental terminology used in the engineering and construction industry. May not be used for degree credit with CIVE 4273.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5080 Engineering Problems
Prerequisites: Permission of instructor.
Description: Problems of particular interest to graduate students in the field of civil engineering. This course meets the criteria for a creative component. Not to be included on thesis plans. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 5083 Applied Statistics for Civil Engineers
Description: This course covers subjects including statistical fundamentals; continuous, count, discrete dependent variable models, random parameter models, and Bayesian modeling that are widely used in civil, particularly transportation engineering. Course is a senior elective. May not be used for degree credit with CIVE 4083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5093 Transportation Safety and Analysis
Prerequisites: Graduate standing.
Description: This course introduces fundamental concepts for performing traffic safety analyses, including safety management systems, different safety countermeasures, development of statistical models with countermeasures and their effectiveness, economic analyses, and crash investigation. Students should be prepared to apply these important safety concepts in professional practice. May not be used for degree credit with CIVE 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5103 Construction Simulation
Description: This course introduces students to effective ways of modeling construction processes and technologies. It provides an investigation of quantitative methods used for the design and analysis of construction operations to maximize productivity and minimize resource idleness. It includes discussions on queueing theory, line-of-balance techniques, linear programming and simulation. Comprehensive group projects that involve modeling and analyzing actual construction operations will be integral parts of this course. May not be used for degree credit with CIVE 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5113 Construction Business Management
Description: Fundamental theories and applied methods of financial management of construction companies. The spectrum of the present and future practice of business management at the construction company level. Basic construction business operations in the context of construction accounting, financial management, cash flow analysis, financial planning, and risk analysis. May not be used for degree credit with CIVE 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5123 The Legal and Regulatory Environment of Engineering
Prerequisites: Graduate standing or admission to CIVE professional school required.
Description: The U.S. and Oklahoma court systems. Tort law and labor law having an impact on engineering and construction. Union organization and activities. Government contracting and the laws governing it. Discussions of the Occupation Safety and Health Act and Americans with Disabilities Act. In-Depth look at environmental policy, laws, and regulations affecting engineering, including NEPA, CWA, SDWA, RCRA, CERCLA and CAA Water law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5133 Construction Contracts and Specifications
Description: The nature of contracts. Contract documents. Master format. Principles of specification writing. Contract types. Bonds and insurance. Bidding. Subcontracting. Disputes and disputes resolution. May not be used for degree credit with CIVE 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng
Additional Fees: Civil Engineering Equip Use fee of $10 applies.

CIVE 5143 Project Engineering and Management
Description: Management of the design and construction of civil engineering projects. Topics include owner's study, formation of project teams, design coordination, construction, and project closeout. May not be used for degree credit with CIVE 4743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5153 Contract Administration
Description: Methods and techniques of tracking and control of construction projects. Evaluation of current research findings to contract implementation. May not be used for degree credit with CIVE 4153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5163 Construction Equipment Management
Description: Analysis of construction equipment. Performance under various operating conditions. Application of engineering fundamentals to construction methods. Selection and costs of equipment, prediction of equipment production rates, and unit costs of work in place. May not be used for degree credit with CIVE 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5183 Construction Estimating
Prerequisites: Graduate standing and CIVE major.
Description: The construction industry, its makeup, operation, estimating, and bidding procedures. Theory and practice of estimating, materials, labor, equipment, and overhead costs for various types of construction. Emphasis on preliminary cost estimates during the conceptual design phase of a construction project. May not be used for degree credit with CIVE 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5193 BIM for Constructions
Prerequisites: CIVE major and graduate standing.
Description: The course focuses on advanced information systems used to control and predict project performance (cost and schedule) in construction. Building information modeling is examined as a systems approach of integrating design and construction for the benefit of developing construction work packages, 4D simulations, clash detection, and the process of implementing BIM on an enterprise to project level. May not be used for degree credit with CIVE 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5203 Pavement Rehabilitation, Management and Safety
Prerequisites: Graduate standing or senior standing with instructor approval.
Description: Understand and perform pavement evaluations of function, structure, surface condition, and surface safety and learn various types of equipment for evaluating pavement function, structure, and surface condition and safety. Describe techniques for rehabilitation of flexible and rigid pavements, and overall objectives and major components of a pavement management system. Understand and explain the basic techniques of safety analysis based on pavement surface data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5243 Use and Design of Geosynthetics
Prerequisites: Graduate student.
Description: Description of types of geosynthetics available for engineering uses. Pertinent engineering properties required to design for various functions, basic design methodology for geosynthetics for various functions, and construction and performance considerations. May not be used for degree credit with CIVE 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5253 Sensors and their Applications for Pavement
Prerequisites: Graduate standing or senior standing with instructor approval.
Description: Sensor Principles of Falling Weight Deflectometer (FWD), Rolling Weight Deflectometer (RWD) and Traffic Speed Deflectometer (TSD); 2D and 3D laser imaging as used in pavement surface condition survey; Laser rangers and accelerometers for pavement longitudinal profile; Friction and texture measurement of pavement surface; New software and mobile tools for presenting sensor data with HTML5; 3D visualization and database management with pavement sensor data; Inertial navigation system and high-precision gyro for pavement data positioning; LIDAR and its usage for infrastructure management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5273 Concrete Durability
Prerequisites: CIVE 5673 Concrete Mixture Design and graduate standing or permission of instructor.
Description: This course investigates the mechanisms, test methods, and evaluation procedures for the primary mechanisms for durability issues in concrete. Emphasis is placed on providing a practical and theoretical overview of the topics. Special topics may be covered with the interest of the students.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5283 Numerical Methods in Geotechnical Engineering
Prerequisites: Graduate standing, or professional school and CIVE 3714 for undergraduates.
Description: The course covers a brief review of some fundamental principles of finite element method and its application to problems in geotechnical engineering. Students will use computer programs to perform analysis of geotechnical earth structures including flow through porous media, unsaturated and expansive soils.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5293 Design and Analysis of Earth Retaining Structures
Prerequisites: CIVE major and graduate standing.
Description: Lateral earth pressure theories. Use of earth retaining structures in civil engineering construction. Design and analysis of gravity, sheet pile, soil nail, and MSE walls by hand calculation and with a computer program. May not be used for degree credit with CIVE 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5303 Systems Analysis for Civil Engineers
Description: Synthesis of systems modeling and simulation techniques, mathematical optimization procedures, and evaluation tools of multi-attributed systems including utility theory and decision analysis. Mathematical optimization techniques in the areas of resource allocation, transportation and water resources systems planning, structural design, construction management, and environmental and ecological problems. May not be used for degree credit with CIVE 4303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5313 Highway Traffic Operations
Description: Level of service, capacity and service volume concepts. Operational characteristics of uninterrupted-flow and interrupted-flow traffic facilities. The 1985 HCM procedures for analyzing the capacity of freeways, multilane and two-lane rural highways, urban arterials, signalized and unsignalized street intersections, and transit and pedestrian facilities. Administrative and planning actions for congestion management. Design alternatives and improvement strategies for effective use of urban arterial street width. May not be used for degree credit with CIVE 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5323 Civil Infrastructure Systems
Prerequisites: Graduate student.
Description: The course presents a unified approach to the management of civil infrastructure systems. Topics of discussion include various aspects of asset management: analytical methods, data collection technologies, life cycle cost, prioritization and optimization, climate change and sustainability. Types of infrastructure considered in the course include pavements (roads and airports), bridges, drainage and sewer systems, water supply systems, and power supply facilities. May not be used for degree credit with CIVE 4323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5333 Reliability and Risk of Components and Systems
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5343 Urban Transportation Planning
Description: Determinants of demand for transportation and models for demand forecasting. Performance characteristics of transportation systems and models for performance. Quantitative analysis of multimodal transportation networks including prediction of flow patterns and service quality. Evaluation of social, environmental, and political impacts of transportation decisions. Application of systems analysis techniques to the generation, evaluation, and selection of alternative transportation systems. May not be used for degree credit with CIVE 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5363 Design and Planning of Airports
Description: Nature of civil aviation. Aircraft characteristics and performance related to airport planning and design. Air traffic control and navigation systems. Basics of airport planning and airport demand forecasting. Analysis of airport capacity and delays. Runway length requirements. Configuration and geometric design of runways, taxiways, holding aprons, and landing areas. Airport lighting, marking, and signing. Drainage and noise control. May not be used for degree credit with CIVE 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5373 Design of Traffic Control Systems
Description: Traffic control systems design, available technological options, and range of agency needs. Design of vehicle detectors, controllers, communications links, signal display hardware, and wiring. Development of timing plans using computer simulation models. Freeway surveillance and control: ramp metering, incident detection, and motorist information systems. Preparation of contractual documents and construction supervision. May not be used for degree credit with CIVE 4373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5383 Geometric Design of Highways
Description: Geometric, functional, and aesthetic aspects of roadway design. Alignment, sight distance, at-grade intersections, interchanges, and freeway systems. Design tools and techniques. May not be used for degree credit with CIVE 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5403 Advanced Strength of Materials
Description: General states of stress and strain, theories of failure, energy principles, beam bending, shear center, torsion of prismatic shafts, beams on elastic foundations, plates and shells, elastic stability. May not be used for degree credit with CIVE 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5413 Classical and Matrix Methods of Structural Analysis
Prerequisites: Graduate standing or admission to CIVE professional school, and CIVE 3413.
Description: Advanced analysis of indeterminate frames, trusses and arches by classical, numerical, energy, and stiffness methods with emphasis on methods for hand computations and development of matrix analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5423 Matrix Analysis of Structures
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413.
Description: Matrix analysis of two- and three-dimensional trusses and frames. Development of member stiffness matrices. Assemblage of structure matrices by direct stiffness method. Computer programs for structural analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5433 Energy Methods in Applied Mechanics
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413 and MATH 2233 or MAE 3323.
Description: Advanced structural mechanics from the standpoint of virtual work; energy principles and variational calculus applied to the analysis of structures, mechanisms, dynamics, and vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5453 Engineering Analysis
Description: Advanced, classical mathematical skills for engineers. Dimensional Analysis, General Tensor Analysis, Curvilinear Coordinates, Partial Differential Equations, Perturbation Theory, Integral Equations, Special Functions, Eigen Function Analysis, Integral Transform Methods, Variational Methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5473 Steel Plastic Design
Prerequisites: Graduate standing or CIVE 3413 Structural Analysis and instructor approval.
Description: This course is for incoming graduate students that are not familiar with LRFD AISC based steel design. Topics typically covered in the undergraduate course are covered with additional topics.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5483 Concrete Testing and Monitoring Method
Prerequisites: Graduate student.
Description: Standard and advanced concrete testing and monitoring methods used for strength assessment of concrete, along with other various material properties and integrity issues in the laboratory and in the field. Principles, applications and limitations, procedures, equipment operation and result interpretation are discussed for each destructive and non-destructive evaluation technique reviewed: mechanical, chemical, electrical, ultrasonic and acoustics, thermography, radiography. This course includes a laboratory session to develop manipulation skills and review concepts presented in lectures. May not be used for degree credit with CIVE 4483.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5493 Infrastructure Condition Assessment and Repair
Prerequisites: Graduate student.
Description: The course provides guidelines on how to conduct a practical condition assessment of reinforced concrete infrastructure, which includes discussions on performing condition surveys, preliminary and detailed investigations; along with concrete properties, distress features and associated causes, diagnostics testing; reporting findings and recommendation. It also includes a discussion in basic repair methods and materials. May not be used for degree credit with CIVE 4493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5503 Computer-Aided Structural Analysis and Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3413, CIVE 3513, CIVE 3523 (or concurrent enrollment); or permission of instructor.
Description: Major comprehensive design experience. Promotion of a design office atmosphere in using a team approach. Industry practitioners provide design projects and critique results. Analysis and design of complex structures and preparation of contract documents and drawings. Emphasis on modern computer-based computation and presentation tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5513 Advanced Reinforced Concrete Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523.
Description: Advanced topics in reinforced concrete design with emphasis on frames, slabs, and earthquake-resistant structures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5523 Advanced Steel Structure Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3513.
Description: Advanced topics in steel design such as plastic design, plate girders, composite design, fatigue and fracture, stability, and bracing design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5533 Prestressed Concrete
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523.
Description: Design of simple and continuous prestressed concrete beams. Behavior under overload. Calculation of prestress losses and deflections. May not be used for degree credit with CIVE 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5543 Bridge Design
Prerequisites: CIVE 3513 AND CIVE 3523.
Description: Structural design of steel and concrete highway bridges, including bridge types, parts of a bridge, loads and load distribution, analysis, design, and bridge rating. Emphasis on topics of special interest to students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5563 Structural Dynamics
Prerequisites: Graduate standing or admission to CIVE professional school required and ENSC 2123 and CIVE 3413.
Description: Analysis of linear, elastic damped and undamped systems with single and multiple degrees of freedom undergoing free and forced vibration. Lumped and distributed mass systems. Computational techniques to numerically integrate the equations of motion. Course previously offered as CIVE 6433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5573 Timber Design
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3523 or CIVE 3513.
Description: Design of structural timber members, assemblies, and connections in accordance with ANSA/AF&PA, NDS specifications. Design, build, and test timber structure.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5583 Advanced Construction Materials
Prerequisites: Graduate student.
Description: The course addresses advanced topics on fundamental material properties and related design criteria for products commonly used in civil construction: timber and engineered wood products, metals and alloys, polymers and fiber reinforced composites; and glass. The lectures will include material specific topics on: physical, chemical and mechanical properties; fabrication methods; use and applications; standards, testing and quality control measures; selection and design criteria. May not be used for degree credit with CIVE 4583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5653 Asphalt Materials and Mix Design
Prerequisites: CIVE 3623 or consent of instructor.
Description: Principles of asphalt concrete mix design including material characteristics and performance. Evaluation of Hveem and Marshall mix design methods. Asphalt cements, rubberized asphalt polymer asphalts, emulsions, cutbacks, and aggregates. Laboratory sessions focused on the engineering properties of the materials discussed.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng
Additional Fees: Civil Engineering Equip Use fee of $15 applies.

CIVE 5673 Concrete Materials and Mix Design
Prerequisites: Senior or graduate standing.
Description: Principles of concrete mix design, including material characteristics, strength and durability requirements, environmental effects and forensic analysis. ACI and PCA mix design procedures. Laboratory on theoretical and practical aspects of concrete technology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5693 Pavement Design and Analysis
Prerequisites: CIVE 3633 or consent of instructor.
Description: Principles of pavement design, including stress analyses, load and environmental effects, and material characteristics. AASHTO, PCA and AI methods of pavement design. Computer methods. Practical aspects of life cycle cost analyses and construction methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5713 Soil Mechanics
Prerequisites: CIVE 3713 and CIVE 4711.
Description: Application of soil mechanics principles and concepts in geotechnical areas of permeability and seepage, settlement analysis, bearing capacity, lateral earth pressures and retaining walls, slope stability, and metastable soils. May not be used for degree credit with CIVE 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5723 Foundation Engineering
Description: Types of structural foundations including footings, mats, rafts, piles and drilled shafts. Site characteristics, exploration programs, field data, test results and construction materials and methods as basis for selection of type of foundation and design. Geotechnical design procedures and considerations. May not be used for degree credit with CIVE 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5733 Rock Mechanics in Engineering Design and Construction
Prerequisites: Undergraduate courses in soils and geology.
Description: Stresses, strength variations, and deformational behavior of rock. Engineering classification of rock. Methods of field and laboratory measurement of the engineering properties of rock. Rock mechanics consideration in the design and construction of engineering works.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5743 Soil-Struc Interaction
Description: The mechanical interaction effects between soils and structures using suitable engineering procedures such as finite differences and finite element methods. Civil engineering problems where interaction effects are most dominant including grade beams (beams on elastic foundation), axially- and laterally-loaded piles, cantilever, and anchored sheet pile walls. May not be used for degree credit with CIVE 4773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5753 Engineering Soil Stabilization
Description: Theoretical and practical aspects of engineering soil stabilization as a method for improving and upgrading low quality and unstable soils for engineering purposes. Use of lime, fly ash, portland cement, asphalt, and other physical and chemical admixtures. Application of deep foundation stabilization methods such as preloading, deep compaction, injection and reinforcement. May not be used for degree credit with CIVE 4753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5800 Environmental Engineering Seminar
Prerequisites: Graduate standing and permission of instructor.
Description: Course is a seminar series for graduate students in the Environmental Engineering program. Seminars will be given by the students in the course and by guest speakers. Through presentations using logical and evaluations, students will learn a breadth of topics in Environmental Engineering and related fields, and will learn and practice presentation skills.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5813 Environmental Laboratory Analysis
Prerequisites: Graduate standing or permission of instructor.
Description: Analytical procedures for water and waste water contaminants. Emphasis on the chemical theory of procedures, analytical work and an understanding of the significance or need for such laboratory data for surface and groundwater management and water and wastewater treatment processes and design. May not be used for degree credit with CIVE 3853.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Civil & Environ. Eng

CIVE 5823 Environmental Risk Assessment and Management
Prerequisites: Graduate standing or permission of instructor.
Description: Environmental risk assessment and management. Applies elements of statistics, probability and environmental simulation to determine the public health and ecological risks from activities of humans. May not be used for degree credit with CIVE 4923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5833 Introduction to Environmental Modeling
Description: Intended as an introductory course for graduate and senior undergraduate students to the fundamentals of environmental modeling. Develops material necessary to construct models capable of identifying contaminant distributions at future times and space for water and air pollution applications. Advanced topics such as stochastic modeling, ecological risk assessment, neural modeling and spatial statistical analysis among others will be presented according to the backgrounds and interests of the enrolled students. In part, the course is designed as the "Physical Science" component for MS students in the Environmental Sciences program. May not be used for degree credit with CIVE 4883.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5843 Unit Operations in Environmental Engineering
Description: Fundamental principles of water and wastewater treatment, including basic theory and development of design parameters. Application of these to the design of unit operations and processes in various treatment plans. May not be used for degree credit with CIVE 4833. CIVE 5843 was used to denote Hydrology II prior to 2004.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5853 Bioremediation
Prerequisites: Graduate standing.
Description: Science and technologies for the site selection and bioremediation of hazardous contamination in soil, sediment and groundwater systems. Includes geochemical reactions and analysis, pollutant fate and transport modeling, microbial degradation mechanisms, natural attenuation, and measurements of success. Course requires a familiarity with differential equations and basic microbiology. May not be used for degree credit with CIVE 4853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5863 Advanced Unit Operations in Environmental Engineering
Description: Theory and design of advanced physical-chemical water and wastewater treatment processes applied to municipal, industrial, and hazardous waste situations. May not be used for degree credit with CIVE 4863.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5873 Air Pollution Control Engineering
Description: Causes, effects, and control of atmospheric pollution. Same course as CHE 5873. May not be used for degree credit with CIVE 4873.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5883 Residuals and Solid Waste Management
Prerequisites: Graduate standing or admission to CIVE professional school required, or permission of instructor.
Description: Theory, design and operation of systems for handling, treatment, and disposal of process sludge (water treatment, wastewater treatment, industrial) and solid wastes. Potential material reclamation options. May not be used for degree credit with CIVE 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5903 Microbiology for Engineers
Description: Microbiology relates to many aspects of engineering, primarily environmental engineering. The class will cover the roles of bacteria in water and wastewater treatment, the bioremediation of hazardous substances, the mechanisms of antibiotic resistance, the molecular tools for studying and tracking bacteria, and special topics with regards to bacteria in common engineered environments. Basic microbiology and biochemistry will be covered throughout the course providing necessary background. May not be used for degree credit with CIVE 4903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5913 Groundwater Hydrology
Prerequisites: Graduate standing or admission to CIVE professional school required and 3843, or permission of instructor.
Description: Theory of groundwater movement, storage, exploration and pumping tests. Design of groundwater recovery and recharge systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5933 Water Treatment
Description: Theory, design, and operation of water treatment plants. Sizing of various unit processes. Water treatment plant control procedures. May not be used for degree credit with CIVE 4933.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5953 Biological Waste Treatment
Description: Fundamentals of microbial systems applied to waste treatment processes. Standard suspended-growth and fixed biofilm wastewater and sludge suspensions and treatment system design calculations. May not be used for degree credit with CIVE 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 5963 Open Channel Flow
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 3833, or permission of instructor.
Description: Open channel hydraulics, energy and momentum concepts, resistance, channel controls and transitions, flow routing, and sediment transport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6000 PhD Research Dissertation
Description: Independent research under the direction of a member of the graduate faculty by students working beyond the level of Master of Science degree. Offered for variable credit, 1-16 credit hours, maximum of 30 credit hours.
Credit hours: 1-16
Contact hours: Contact: 1-16 Other: 1-16
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 6010 Seminar
Prerequisites: Consent of instructor and approval of the student's advisory committee.
Description: Analytical studies with suitable reports on problems in one or more of the subfields in civil engineering by students working beyond the level of Master of Science degree. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Civil & Environ. Eng

CIVE 6403 Theory of Elasticity
Prerequisites: Graduate standing or admission to CIVE professional school required, or permission of instructor.
Description: Stress, strain, and deformation analysis of two- and three-dimensional elastic continua. Propagation of stress waves through elastic continua.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6413 Plate and Shell Structures
Prerequisites: Graduate standing or admission to CIVE professional school required and CIVE 5403, or permission of instructor.
Description: Bending of thin plate structures to include rectangular and circular plates. Analysis of orthotropic plates by classical and numerical methods. Introduction to shell bending theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6434 Finite Element Analysis
Prerequisites: Graduate standing and permission of instructor.
Description: Finite elements: formulation techniques, weighted residuals, variational techniques, shape functions and element types, isoparametric elements, convergence criteria, error analysis, and programming techniques. Applications to solid mechanics, structures, fluid mechanics, and heat transfer are discussed.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6553 Natural Hazards Engineering
Prerequisites: Graduate standing and CIVE 5563.
Description: Performance of structural systems exposed to extreme loadings from natural hazard events. The response, analysis, and design of structures exposed to earthquakes, wind, flood, and fire loadings are considered. Advanced analytical, computational, and experimental techniques. Current building code specifications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6843 Stochastic Methods in Hydrology
Prerequisites: Graduate standing and STAT 4073 or STAT 4033.
Description: Stochastic and statistical hydrologic analyses of surface water and ground water systems. Analyses of urban and rural drainage and detention systems. Same course as BAE 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

CIVE 6923 Industrial Wastes Engineering
Prerequisites: Graduate standing or permission of instructor.
Description: Theory and methods of waste minimization, waste product reduction or reuse; process changes and treatment of residuals to reduce volume and toxicity of industrial wastes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Civil & Environ. Eng

Undergraduate Programs

- Civil Engineering, BSCV (p. 2318)
- Civil Engineering: Environmental, BSCV (p. 2320)

Graduate Programs

The School of Civil and Environmental Engineering offers three programs leading to post-baccalaureate degrees—the Master of Science degree in civil engineering, the Master of Science degree in environmental engineering, and the Doctor of Philosophy degree. The Master of Science degree is characterized by a technical specialization in a particular area of study. The Doctor of Philosophy degree is designed to prepare students for research and for the teaching profession in engineering.

Major areas of study in the School are applied mechanics, structural analysis and design, transportation, materials, construction engineering and management, geotechnical engineering, water resources, and environmental engineering. Research is possible in all major fields. Master of Science in Civil Engineering candidates may choose either to specialize or to engage in a broadly based program of study, in accordance with an approved and purposeful plan of study.

Admission Requirements

Candidates for the Master of Science in civil engineering or environmental engineering: Successful completion of a B.S. degree in engineering, engineering technology, science, or mathematics. For degrees other than Civil Engineering the department may require additional coursework. For candidates with an undergraduate degree in science and/ or pursuing a career in environmental engineering, the Master of Science in environmental engineering degree may be appropriate.

Candidates for the Doctor of Philosophy: Successful completion of an M.S. degree in civil engineering or a closely related field.

Degree Requirements

All degree programs follow an approved plan of study that must be submitted at a designated time. All programs are characterized by the flexibility available in a study plan that is designed to satisfy the particular needs of the student, while conforming to the general requirements implied by the title of the degree and specified by the University.

The Master of Science degree in civil engineering requires the completion of at least 30 credit hours beyond the bachelor's degree, including a research thesis for which no more than six credit hours may be granted. The non-thesis option (32 credit hours) may be permitted at the discretion of the student's advisory committee.

The Doctor of Philosophy in civil engineering degree requires the completion of at least 48 credit hours beyond the Master's degree. This must include a minimum of eighteen (18) additional credit hours of coursework along with 30 hours of dissertation credit. The committee may require additional coursework.

Generally, official admission as a candidate for the Doctor of Philosophy degree in any program offered by the School will not be granted until a member of the Graduate Faculty in the School agrees to serve as major (or thesis) advisor for the prospective candidate.

Minors

- Environmental Engineering (EVEN), Minor (p. 2322)

Faculty

Mark Krzmarzick, PhD, PE—Professor and Acting Head
Regents Service Professor and Donald & Cathey Humphreys Chair: Paul J. Tikalsky, PhD, PE, F.ASCE, F.ACI
Regents Professor and Gilbert, Cooper, W&W Steel Chair: Tyler Ley, PhD, PE, F.ACI
Professors: Norbert (Norb) Delatte, PhD, PE, F.ASCE, F.ACI; Bruce Russell, PhD, PE
Professor and Williams Professor: Qiang (Joshua) Li, PhD, PE
Associate Professors: Robert Emerson, PhD, PE; Jorge Gonzalez Estrella, PhD; Debakanta (Deb) Mishra, Ph.D., P.E.; Gregory G. Wilber, PhD, PE; Yongwei Shan, PhD, PE
Associate Professor and Decker Dawson Chair: Mohamad Soliman, PhD, PE

Assistant Professors: Aritra Banerjee, Ph.D.; Mohamed Elkashef, PhD, PE; Mary Foltz, PhD, PE; Brian Giffin, PhD; Maha Kenawy, PhD; Gabriel Pérez, Ph.D., Jaime Schussler, PhD
Lecturer: Matt Mitchell, PE

Civil Engineering, BSCV

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 128

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
or ENGL 1213	Composition II	
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1314	Chemistry I (LN)	
BIOL 1114	Introductory Biology (LN)	4
or BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
or GEOL 1114	Physical Geology (LN)	
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Basic Science		
Select one of the following options: [1]		5
PHYS 2114 & CIVE 2081	University Physics II (LN) and Environmental Chemistry for Engineers [1]	
or		
CHEM 1515	Chemistry II (LN) [1]	
Mathematics		
MATH 2163	Calculus III	3
Engineering		
ENGR 1322	Engineering Design with CAD	2
ENGR 1412	Introductory Engineering Computer Programming	2
Engineering Science		
ENSC 2113	Statics	3
ENSC 2123	Elementary Dynamics	3
ENSC 2143	Strength of Materials	3
ENSC 2141	Strength of Materials Lab	1
Civil Engineering		
CIVE 2041	Civil and Environmental Engineering Seminar	1
CIVE 3614	Engineering Surveying	4
CIVE 3813	Environmental Engineering Science	3
Hours Subtotal		**31**
Major Requirements		
Mathematics		
MATH 2233	Differential Equations	3
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
Engineering Science		
ENSC 3233	Fluid Mechanics	3
ENSC 3231	Fluids and Hydraulics Lab	1
Civil Engineering		
CIVE 3413	Structural Analysis	3
CIVE 3513	Structural Steel Design	3
CIVE 3523	Reinforced Concrete Design	3
CIVE 3623	Engineering Materials Laboratory	3
CIVE 3633	Transportation Engineering	3
CIVE 3714	Introduction to Geotechnical Engineering	4
CIVE 3833	Applied Hydraulics	3
CIVE 3843	Hydrology I	3
CIVE 4041	Engineering Practice	1
CIVE 4043	Senior Design	3
CIVE 4273	Construction Engineering and Project Management	3
CIVE 4833	Unit Operations in Environmental Engineering	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3

Hours Subtotal		**48**
Electives		
Select 9 hours of the following:		9
CIVE 4010	Civil Engineering Research	
CIVE 4013	Aquatic Chemistry	
CIVE 4033	GIS Applications for Water Resources	
CIVE 4050	Special Topics in Civil & Environmental Engineering	
CIVE 4103	Construction Simulation	
CIVE 4113	Construction Business Management	
CIVE 4123	The Legal & Regulatory Environment of Civil Engineering	
CIVE 4133	Construction Contracts and Specifications	
CIVE 4153	Contract Administration	
CIVE 4163	Construction Equipment Management	
CIVE 4183	Construction Estimating	
CIVE 4193	BIM for Construction	
CIVE 4243	Use and Design of Geosynthetics	
CIVE 4283	Numerical Methods in Geotechnical Engineering	
CIVE 4293	Design and Analysis of Earth Retaining Structures	
CIVE 4303	Systems Analysis for Civil Engineers	
CIVE 4313	Highway Traffic Operations	
CIVE 4323	Civil Infrastructure Systems	
CIVE 4343	Urban Transportation Planning	
CIVE 4363	Design and Planning of Airports	
CIVE 4373	Design of Traffic Control Systems	
CIVE 4383	Geometric Design of Highways	
CIVE 4403	Advanced Strength of Materials	
CIVE 4413	Classical and Matrix Methods of Structural Analysis	
CIVE 4513	Advanced Reinforced Concrete Design	
CIVE 4523	Advanced Steel Structure Design	
CIVE 4533	Prestressed Concrete	
CIVE 4563	Structural Dynamics	
CIVE 4573	Timber Design	
CIVE 4653	Asphalt Materials and Mix Design	
CIVE 4673	Concrete Materials and Mix Design	
CIVE 4693	Pavement Design and Analysis	
CIVE 4723	Foundation Engineering	
CIVE 4733	Soil Mechanics	
CIVE 4773	Soil-Structure Interaction	
CIVE 4743	Project Engineering and Management	
CIVE 4753	Engineering Soil Stabilization	
CIVE 4873	Air Pollution Control Engineering	
CIVE 4863	Advanced Unit Operations in Environmental Engineering	
CIVE 4913	Groundwater Hydrology	
CIVE 4923	Environ Risk Assessment	
CIVE 4933	Water Treatment	
CIVE 4943	Risk and Failure Analysis of Dams	
CIVE 4983	Residuals & Solid Waste Management	
CIVE 4963	Open Channel Flow	
CIVE 4973	Concrete Durability	
ENGR 4043 or ENGR 4060 may be used as one of the CIVE electives.		
Hours Subtotal		**9**
Total Hours		**128**

[1]

Chem 1515 fulfills the requirements for both CHEM 1414 and CIVE 2081.

Other Requirements

Graduation Requirements

1. A minimum 2.00 Technical GPA. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. If “B” or higher is not earned in ENGL 1113 Composition I, then ENGL 1213 Composition II must be completed.
3. A "C" or better is required in all CIVE, ENSC, and Math prefixed courses required in the degree.
4. The major engineering design experience, capstone course, is satisfied by CIVE 4043 Senior Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Civil Engineering: Environmental, BSCV

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 128

Code	Title	Hours
General Education Requirements		
All General Education coursework requirements are satisfied upon completion of this degree plan		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
or ENGL 1213	Composition II	
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1314	Chemistry I (LN)	
Select four hours from the following:		4
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOL 1114	Introductory Biology (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2163	Calculus III	3
Basic Science		
Select one of the following options:		5
PHYS 2114 & CIVE 2081	University Physics II (LN) and Environmental Chemistry for Engineers	
or		
CHEM 1515	Chemistry II (LN)	
Engineering		
ENGR 1322	Engineering Design with CAD	2
ENGR 1412	Introductory Engineering Computer Programming	2
Engineering Science		
ENSC 2113	Statics	3
ENSC 2123	Elementary Dynamics	3
ENSC 2143	Strength of Materials	3
ENSC 2141	Strength of Materials Lab	1
Civil Engineering		
CIVE 2041	Civil and Environmental Engineering Seminar	1
CIVE 3614	Engineering Surveying	4
CIVE 3813	Environmental Engineering Science	3
Hours Subtotal		**31**
Major Requirements		
Mathematics		
MATH 2233	Differential Equations	3
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
Engineering Science		
ENSC 3233	Fluid Mechanics	3
ENSC 3231	Fluids and Hydraulics Lab	1
Civil Engineering		
CIVE 3413	Structural Analysis	3
CIVE 3523	Reinforced Concrete Design	3
CIVE 3853	Environmental Engineering Laboratory	3
CIVE 3623	Engineering Materials Laboratory	3
CIVE 3633	Transportation Engineering	3
CIVE 3714	Introduction to Geotechnical Engineering	4
CIVE 3833	Applied Hydraulics	3
CIVE 3843	Hydrology I	3
CIVE 4041	Engineering Practice	1
CIVE 4143	Environmental Engineering Design	3

CIVE 4273	Construction Engineering and Project Management	3
CIVE 4833	Unit Operations in Environmental Engineering	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
Hours Subtotal		**48**
Electives		
Select 9 hours of the following:		9
CIVE 4010	Civil Engineering Research	
CIVE 4013	Aquatic Chemistry	
CIVE 4033	GIS Applications for Water Resources	
CIVE 4050	Special Topics in Civil & Environmental Engineering	
CIVE 4123	The Legal & Regulatory Environment of Civil Engineering	
CIVE 4243	Use and Design of Geosynthetics	
CIVE 4863	Advanced Unit Operations in Environmental Engineering	
CIVE 4873	Air Pollution Control Engineering	
CIVE 4883	Introduction to Environmental Modeling	
CIVE 4913	Groundwater Hydrology	
CIVE 4923	Environ Risk Assessment	
CIVE 4933	Water Treatment	
CIVE 4943	Risk and Failure Analysis of Dams	
CIVE 4963	Open Channel Flow	
CIVE 4983	Residuals & Solid Waste Management	
ENGR 4043 or ENGR 4060 may be used for one CIVE elective.		
Hours Subtotal		**9**
Total Hours		**128**

[1]

CHEM 1515 fulfills the requirements for both CHEM 1414 and CIVE 2081.

Graduation Requirements

1. A minimum 2.00 Technical GPA. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. If “B” or higher is not earned in ENGL 1113 Composition I, then ENGL 1213 Composition II must be completed.
3. A "C" or better is required in all CIVE, ENSC, and Math prefixed courses required in the degree.
4. The major engineering design experience, capstone course, is satisfied by CIVE 4143 Environmental Engineering Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Environmental Engineering (EVEN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average: Minimum of 2.5 GPA with grade of "C" or better in each minor course
Total Hours: 18

Code	Title	Hours
Core courses		
CHEM 3053	Organic Chemistry I	3
CIVE 3813	Environmental Engineering Science	3
CIVE 3853	Environmental Engineering Laboratory	3
CIVE 4833	Unit Operations in Environmental Engineering	3
Select one course focused on relevant advanced science:		3
BAE 4324	Water Quality Engineering	
CHEM 3153	Organic Chemistry II	
CHEM 3433	Physical Chemistry I	
CIVE 4013	Aquatic Chemistry	
CIVE 4903	Microbiology for Engineers	
MICR 2123	Introduction to Microbiology	
Select one one course focused on environmental engineering design:		3
BAE 5343	Environmental Contaminant Fate and Transport	
CIVE 4853	Bioremediation	
CIVE 4873	Air Pollution Control Engineering	
CIVE 4883	Introduction to Environmental Modeling	
CIVE 4953	Biological Waste	
CIVE 4933	Water Treatment	
CIVE 4050 and BAE 4400 courses in environmental engineering topics (requires approval of the minor administrator)		
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Electrical and Computer Engineering

The School of Electrical and Computer Engineering is highly recognized throughout the nation for its student-centered, laboratory-intensive curriculum. It is a partner of choice for employers seeking well-educated, highly motivated, and uniquely creative college graduates dedicated to life-long learning. Our dedicated faculty teach, mentor, and support students pursuing Bachelor of Science (BS), Master of Engineering (MEng), Master of Science (MS), or Doctorate (PhD) degrees in Electrical Engineering (EE) or a BS degree in Computer Engineering (CpE) with an option in Software Engineering (SOFT). Both the BS in EE and BS in CpE programs are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org (http://www.abet.org/), under the General Criteria and the Electrical, Computer, Communication, and Telecommunication(s) Engineering Program Criteria.

For more than a century, electrical and computer engineers have driven the technological revolutions that define modern life. Their ingenuity has given us marvels—from transistors, diodes and radios to microprocessors, GPS, smartphones, electric vehicles and flat-panel displays, to name just a few. Because electricity and computing underpin every aspect of contemporary society, skilled electrical and computer engineers will always be in high demand.

Electrical engineering embraces a vast spectrum of subdisciplines —including energy systems and machines; power, analog, digital, and mixed-signal electronics; VLSI design; instrumentation and sensors; signal processing, machine vision, and artificial intelligence; communications and control systems; robotics; wireless and electromagnetic systems; photonics; embedded controllers; networking and software development; biomedical devices; and computer memory and architecture. Our School integrates every one of these areas into both its curriculum and its research programs.

Computer engineering is a dynamic, fast-growing discipline that builds on core electrical engineering principles and integrates key computer science concepts to enable seamless hardware-software design. Its scope spans digital logic and computer architecture; data communications and sensor interfacing; microprocessors and digital control; VLSI circuits and systems; operating and software systems; as well as computer arithmetic and artificial intelligence.

Modern electrical and computer engineers need more than technical prowess—they must anticipate their innovations' social, economic, ethical, and environmental consequences, communicate persuasively, collaborate seamlessly, and fully embrace the engineering-design process. Oklahoma State University's undergraduate EE and CpE curricula are specifically crafted to develop these essential competencies in every graduate.

Undergraduate Program Educational Objectives

The Bachelor of Science in Electrical Engineering (BSEE) degree program educates and prepares electrical engineers who, within a few years after graduation:

- Proficiently use mathematical and scientific knowledge to solve real-world problems associated with analog and digital electrical circuits, devices, components, sensors, and systems.
- Skillfully use sound electrical engineering principles, competently design per standards and specifications, and effectively utilize modern instruments and simulation tools.
- Embrace ethical ideals, manifest self-reliance and determination, demonstrate continuous learning, and strive for engineering excellence.
- Practice effective leadership, teamwork, and communication to excel in productivity.
- Adeptly identify and contribute to solving challenging engineering problems that improve the lives of people in Oklahoma and beyond.

The Bachelor of Science in Computer Engineering (BSCpE) degree program educates and prepares computer engineers who, within a few years after graduation:

- Proficiently use mathematical and scientific knowledge to solve real-world problems associated with digital systems and networks, computer hardware and software applications, algorithms, and artificial intelligence.
- Skillfully use sound computer engineering principles, competently design per standards and specifications, and effectively utilize modern instruments and simulation tools.
- Embrace ethical ideals, manifest self-reliance and determination, demonstrate continuous learning, and strive for engineering excellence.
- Practice effective leadership, teamwork, and communication to excel in productivity.
- Adeptly identify and contribute to solving challenging engineering problems that improve the lives of people in Oklahoma and beyond.

Undergraduate Program and Student Learning Outcomes

To support the aforementioned Program Educational Objectives, the School has established Student Learning Outcomes that are regularly assessed and expected of all students upon completion of their chosen program in Electrical Engineering or Computer Engineering. Attainment of the following outcomes prepares graduates to enter the professional practice of engineering:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. an ability to communicate effectively with a range of audiences;
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The undergraduate electrical engineering and computer engineering programs at Oklahoma State University prepare each graduate for a life-long professional career. During the first two years of study, students complete a carefully designed set of lower-division courses in the areas of electrical engineering, computer engineering, computer science, mathematics, physics, chemistry, humanities, and social sciences. After successfully completing these courses, students enroll in both required and elective upper-division courses in electrical engineering and computer engineering.

Electrical engineering and computer engineering students obtain fundamental knowledge and technical skills needed by tomorrow's professionals. Students pursuing a degree in Electrical Engineering have numerous options to take elective courses in the areas of a) control systems, digital signal processing, and communication systems, b) energy and power, c) computer systems and digital electronics, d) analog and mixed-signal electronics, and e) microwaves and photonics. Students pursuing a degree in Computer Engineering are required to take specialized computer engineering courses dealing with microcontrollers, embedded controllers, robotics, computer architecture, discrete mathematics, digital logic design, networking, programming, coding, computing, and digital electronics.

Instructional laboratories are a central part of the undergraduate curriculum to provide opportunities for hands-on experience in areas such as microcomputers, digital logic design, electronics, networks, instrumentation, optics, communications, and electromagnetics. These laboratories are in the College of Engineering, Architecture and Technology's new 70,000 ft^2 teaching facility, Endeavor, and are equipped with state-of-the-art, industrial-grade equipment.

Engineering design laboratories require students to solve open-ended, practical problems in a manner that demonstrate the students' ability to apply fundamental concepts, creativity, and imagination. These problems have several possible outcomes; students must choose an acceptable approach and demonstrate that the optimal outcome has been met in accordance with engineering standards and specifications.

All electrical engineering and computer engineering students receive multiple engineering design experiences. The key design experience is a two-course sequence typically taken during the students' last two semesters of the BS program. This experience gives students an opportunity to apply and demonstrate the skills that they have developed throughout their academic program. Teamwork, communication skills, and the complete engineering design process—from problem definition to prototype that includes both presentation and documentation—are emphasized.

Student design teams receive individual project mentoring from a faculty member who provides project management advice and technical mentoring. The capstone experience concludes with a formal public design demonstration, oral presentation, and written report.

Degree Programs and Options

The School of Electrical and Computer Engineering (ECEN) offers a full range of undergraduate and graduate program choices that allow students to excel in their careers. Specifically, the School of Electrical and Computer Engineering offers five degrees:

- Bachelor of Science in Electrical Engineering (BSEE)
- Bachelor of Science in Computer Engineering (BSCpE) with an option in Software Engineering (SOFT)
- Master of Engineering in Electrical Engineering (MEngEE, non-thesis)
- Master of Science in Electrical Engineering (MSEE, thesis)
- Doctor of Philosophy in Electrical Engineering (PhDEE)

Bachelor of Science

- This degree program is designed to provide fundamental scientific and mathematical knowledge needed for an engineering education and an entry-level engineering career.
- Broad-based and in-depth technical courses are provided to teach the fundamentals of the electrical engineering and computer engineering professions.
- The degree focuses on analysis and design methods, laboratory and simulation experiences, and theoretical and practical problems.
- Requirements: 124 credits hours (BSEE), 125 credit hours (BSCpE), and 128 credit hours (BSCpE+SOFT)

Master of Engineering

- This degree program is tailored to students who wish to gain advanced knowledge and expertise in subject areas associated with their professional pursuits.
- This non-research, non-thesis instructional program is ideal for Distance Education students or for baccalaureate graduates interested in professional development.
- This program is available online.
- Requirements: 33 credit hours of coursework. Specific requirements for the MEngEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Master of Science

- This degree program is tailored to students who wish to gain advanced knowledge in subject areas associated with their professional pursuits.
- The program emphasizes research as part of the learning experience and culminates with the defense of a thesis.
- This program is ideal for students who wish to pursue a PhD.
- This program is available online.
- Requirements: 24 credit hours of coursework and 6 credit hours of thesis research. Specific requirements for the MSEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Doctor of Philosophy

- This degree program is tailored to students who desire to have a teaching and research career in academia or a research career in industry or government laboratories.
- This program is ideal for those students who have a passion to acquire in-depth knowledge.
- The program emphasizes the creation of new knowledge during the research process, the publication of that knowledge, and the defense of a dissertation.
- Requirements: 67 total credit hours beyond the BSEE/BSCpE degree. Specific requirements for the PhD program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Options: Students are also given the option to combine degrees to take advantage of common courses between various degrees, thereby reducing the total number of credit hours relative to non-combining options. These combining options are highly attractive from a financial and career point of view. Knowledge gained in these degree programs adds value to what the student can do once or while employed. The current combining options are:

- Dual BSEE and BSCpE degrees (137 credit hours)
- Joint "4+1" BSEE/BSCpE plus MEngEE degrees (148/149 credit hours)

With effective planning, the dual BSEE and BSCpE program can be completed in four years by taking approximately 17 credit hours of courses each semester. It may take less time if students have Advanced Placement credit hours. This dual degree program allows a student to have a true comprehensive education across the electrical and computer engineering spectrum, thus preparing the student for just about any entry-level career in electrical engineering or computer engineering. The program effectively requires the completion of the BSCpE degree plus 12 additional credit hours in non-computer, electrical engineering courses. An advising sheet for the dual program is posted on the School's web page: https://ece.okstate.edu/. This sheet has been devised to assure that the degree requirements for both the BSCpE and BSEE degrees are satisfied in the most expeditious manner.

The "4+1" program—available only to OSU baccalaureate students—is a five-year accelerated program that combines the BSEE or BSCpE degree with the MEngEE degree. It is designed to give students a broad-based undergraduate education in electrical engineering or computer engineering along with a highly in-depth graduate education in a few key areas. This program is ideal for those students who want advanced knowledge to enhance their competitiveness in the work force and to satisfy their longing for in-depth knowledge that cannot be obtained from the baccalaureate degrees. Specific requirements for the "4+1" program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

ECE also offers an Option in Software Engineering (SOFT) as part of the Computer Engineering (CpE) degree. As the title suggests, the option emphasizes software solutions in the context of computer engineering applications with a focus on the software-hardware interface. A total of 128 credit hours (i.e., 3 credit hours beyond the BSCpE degree) is required to complete this option. Of those 128 credit hours, 12 credit hours of software specific courses, as approved and listed by the School, must be completed.

Moreover, a degree in electrical engineering or computer engineering provides a strong foundation for diverse professional fields, including medicine and law. Many graduates also leverage their engineering background to pursue advanced studies in business and management.

Courses

ECEN 2011 Experimental Methods I
Prerequisites: PHYS 2114 with a "C" or better or concurrent enrollment advisor permission required.
Description: Laboratory associated with ECEN 2714 taken mostly by transfer students who have completed a similar course as ECEN 2714 without the accompanying laboratory. Previously offered as ECEN 3013.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 2233 Fundamentals of Digital Logic Design
Prerequisites: MATH 1813 with a "C" or better or concurrent enrollment.
Description: Introduction to digital logic, logic building blocks, Boolean algebra, two-level realization of logic functions, Karnaugh maps (K-maps) and the Quine-McCluskey method/Heuristics for minimizing the complexity of logic circuits, programmable logic with FPGAs, complex logic building blocks, Finite State Machines (FSMs), FSM design methodology, digital system design, algorithmic design in digital systems, control/datapath partitioning, FSM optimizations, and clocking methodologies. No degree credit for students with credit in ECEN 3233.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 2714 Fundamentals of Electric Circuits
Prerequisites: MATH 2153 with a "C" or better and (PHYS 2114 and MATH 2233 and ENSC 2611 with a "C" or better or concurrent enrollment).
Description: Circuit analysis techniques including equivalent networks and mesh/node formulation of network equations; operational amplifiers; RL, RC and RLC transient and steady-state circuit analysis; energy and power; electrical measurements and instrumentation.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3020 Supervised Research Project
Prerequisites: Consent of instructor and ECEN department head.
Description: Supervised research project for qualified students. May be repeated no more than three times for a total of three credit hours. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 3113 Energy, Environment and Economics
Prerequisites: ECEN 3714 with a "C" or better.
Description: Topics relevant to understanding the close relationship between energy use, its impact on the environment, and overall economic implications. Green energy technologies (wind, solar, hydro) will be considered along with conventional techniques. Both conventional and non-conventional energy technologies will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3213 Computer Based Systems in Engineering
Prerequisites: ECEN 2714 and ECEN 2233 and (CS 2433 or CS 2133 or ENGR 1412 or EET 1103), all with a "C" or better.
Description: A comprehensive introduction to technology and applications of microcontrollers/microprocessors in solving engineering problems. Topics include computer principle, computer hardware/software, programming, IO interfacing, communication, memory, data acquisition, data representation, and numerical analysis. Previously offered as ENSC 3213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3314 Electronic Devices and Applications
Prerequisites: ECEN 3714 with a grade of "C" or better and ENSC 2611 with a grade of "C" or better.
Description: Semiconductor electronic components including MOSFETs, BJTs, JFETs, and OpAmps. Emphasis on device models and use of solid state electronic devices to analyze, synthesize and design amplifiers and switching circuits. SPICE simulations are extensively utilized. Basic building blocks for analog and digital applications. Theoretical concepts and methods are demonstrated and reinforced through laboratory exercises. Course previously offered as ECEN 3313.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3513 Signal Analysis
Prerequisites: ECEN 3714 with a "C" or better.
Description: Deterministic signals. Fourier series and Fourier transforms. Impulse response, convolution and correlation. Sampling theorem. Analog modulation techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3613 Applied Fields and Waves I
Prerequisites: MATH 2163 and ECEN 3714 with a "C" or better.
Description: Circuit model of transmission lines, wave propagation, energy transfer, impedance mismatch, and transients. Field analysis of voltage, current, resistance, capacitance, and inductance. Coupled circuits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3623 Applied Fields and Waves II
Prerequisites: ECEN 3613.
Description: Continuation of ECEN 3613. Plane-wave propagation in free space, power flow, reflection and transmission. Guided waves and resonators. Radiation and introduction to antenna systems. Boundary value problem analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3714 Network Analysis
Prerequisites: MATH 2233 and PHYS 2114 and (ECEN 2714 or (both ENSC 2613 and ENSC 2411) or (both ENSC 2613 and ECEN 2011)) with a grade of "C" or better.
Description: Advanced mathematical analysis techniques used in circuit analysis including Laplace transforms, Fourier transforms, and Fourier series. Circuit frequency response, Bode plots, and filters, including passive, active, low-pass, high-pass, and band-pass filters. Theory of linear circuits; two-port circuit models and parameters. Course previously offered as ECEN 3713.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 3723 Systems I
Prerequisites: ECEN 3714 and ENSC 2113 with a "C" or better and (MATH 3013 with a "C" or better or concurrent enrollment).
Description: Physical and mathematical modeling of electrical and mechanical dynamic systems. Transient response of first and second order systems. Laplace transform techniques for solving differential equations, transfer functions, frequency response and resonance. Course previously offered as ECEN 3413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3903 Introduction to Semiconductor Devices
Prerequisites: ECEN 3714 with a grade of "C" or better.
Description: Crystal structure, the quantum theory of solids. The physics of semiconductor materials and the projunction, with an emphasis on applications to semiconductor devices. Same course as PHYS 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 3913 Solid State Electronic Devices
Prerequisites: ECEN 3714 with a "C" or better and (PHYS 3313 or ECEN 3903 with a "C" or better).
Description: Solid state physics basis of modern electronic devices. Introductory quantum mechanics. Energy bands in solids. Electronic properties of semiconductors. Junction diodes. Bipolar transistors. Field effect transistor.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4010 Special Topics
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a "C" or better or advisor permission.
Description: Engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 4013 Design of Engineering Systems
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better, and ECEN 3613, ECEN 3513, ECEN 3314 and (ENGL 3323 with a grade of "C" or better or concurrent enrollment).
Description: Complete design cycle for several small design projects, each including establishing objectives, synthesis, analysis, construction, testing and evaluation. Use of modern lab equipment and fabrication techniques. Development of communication skills.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4024 Capstone Design
Prerequisites: ECEN 4013 and ECEN 4503.
Description: Continuation of ECEN 4013. Student project teams design, build, test and present results for realistic projects from university and industrial sponsors. Formulation of specifications, consideration of alternative solutions, feasibility considerations, detailed system descriptions, economic factors, safety, reliability, aesthetics, ethics and social impact. Course previously offered as ECEN 4023.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 4030 Undergraduate Professional Practice
Prerequisites: Department Permission Required.
Description: Experience in application of electrical engineering principles to typical problems encountered in industry. Solutions to the problems by student participation in the role of engineer or engineering intern. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 4133 Power Electronics
Prerequisites: ECEN 3714 with a grade of "C" or better.
Description: Power electronic devices, components, and their characteristics; DC to AC conversion; fundamentals of inverters and waveshaping devices; application aspects; control aspects; characteristics and state-of-the-art of advanced power inverter and power conditioning topologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4153 Power System Analysis and Design
Prerequisites: ECEN 3714, "C" or better.
Description: Power system component models from circuit theory. Formulation and design of the load flow model and the optimum economic generator allocation problem utilizing computer methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4213 Embedded Computer Systems Design
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233) and ECEN 3714, all with a grade of "C" or better.
Description: Design of microcontroller/microprocessor-based systems through proper integration of hardware and software. Topics include development process and methodology, sensor interfacing, motor control, networking and wireless communication, embedded operating systems, and Internet of Things (IoT).
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4223 Mobile Robotics
Prerequisites: ECEN 3213 and ECEN 3714, both with a grade of "C" or better.
Description: This electrical and computer engineering course introduces the fundamentals of mobile robots to both undergraduate and graduate students. Mobile robots are integrated mechanical, electrical and computational systems functioning in the physical world. Topics include design, locomotion, perception, control, localization and mapping, path planning, and more. Advanced topics will also be discussed. This course aims to provide theoretical and practical experiences to students through both lectures and projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4233 High Speed Computer Arithmetic
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Course covers computer arithmetic as applied to general purpose and application-specific processors. Focus is on developing high-speed arithmetic algorithms and understanding their implementation in VLSI technology at the gate level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4243 Computer Architecture
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Functional organization and hardware design of digital computer systems with emphasis on microprocessor-based systems. CPU organization, features of microprocessors including advanced 32-bit CPU's, memory system design including cache, virtual memory, error detection and correction, I/O operations, including direct memory access and peripheral interface design.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4273 Software Engineering
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Fundamental characteristics of the software life cycle. Tools, techniques, and management controls for development and maintenance of large software systems. Software metrics and models. Human factors and experimental design. Same course as CS 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4283 Computer Networks
Prerequisites: (ECEN 3213 or ENSC 3213), (ECEN 2233 or ECEN 3233), and ECEN 3714, all with a grade of "C" or better.
Description: Computer networks, distributed systems and their systematic design. Introduction to the use, structure, and architecture of computer networks. Networking experiments to describe network topology. ISO reference model. Same course as CS 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4293 Applied Numerical Methods for Python for Electrical Engineers
Prerequisites: None. This course is suitable for any student in CEAT who has a basic understanding of programming (CS 1113 Computer Science I) and is willing to spend the time necessary to learn.
Description: This course is an introduction to numerical linear algebra and related numerical methods. Topics include direct and iterative methods for linear systems, eigenvalue decompositions and QR/SVD factorizations, stability and accuracy of numerical algorithms, the IEEE floating-point standard, sparse and structured matrices, and an introduction to machine learning/AI and linear algebra software. Other topics may include nonlinear optimization, numerical integration and differentiation, FFTs, and sensitivity analysis. Problem sets will involve heavy use of the Python environment (little or no prior experience required; you will learn as you go).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4303 Digital Integrated Circuit Design
Prerequisites: ECEN 3314 and (ECEN 2233 or ECEN 3233 with a "C" or better).
Description: Theory of digital and electronics circuits. Digital logic families TTL, IIL, ECL, NMOS, CMOS, GaAs. Large signal models for transistors. Implementation at RAM and ROM. Circuit design for LSI and VLSI.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4313 Linear Electronics Circuit Design
Prerequisites: ECEN 3314.
Description: Overview of semiconductor device physics (MOSFETs and BJTs) and integrated-circuit design environment. Building blocks for analog systems (differential amplifiers, operational amplifiers, output stages, and voltage references). Understanding of frequency response (Bode plot, transfer function, pole-zero analysis, feedback, and stability). Extensive SPICE-based design for performance optimization and design tradeoffs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4353 Communication Electronics
Prerequisites: ECEN 3314.
Description: Introduction to radio-frequency (RF) communication systems with a primary focus on transistor- and circuit-level analysis. Investigations of RF system properties (noise, linearity, and matching) modulation schemes, and transceiver architectures. Operation principles and basic design of low-noise amplifiers, mixers, power amplifiers, and oscillators.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4413 Automatic Control Systems
Prerequisites: ECEN 3723 or (MAE 3723 or MAE 3724).
Description: Properties of feedback control systems, mathematical models of basic components, state-variable models of feedback systems, time-domain analysis, stability, transform analysis, frequency domain techniques, root-locus design of single input single output systems and simple compensation techniques. Same course as MAE 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4493 Artificial Intelligence in Engineering
Prerequisites: ECEN 3714 with a "C" or better.
Description: Elementary concepts of artificial intelligence and its applications in engineering, including but not limited to automation, manufacturing, computer vision, robotics and mechatronics. Emphasis is on deep neural network architectures and learning algorithms along with topics related to machine learning, computer vision and data analytics. Online computer programs, such as Python and AI Libraries, collated from open-source repositories will be given along with hands-on experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4503 Applications of Probability and Statistics to Random Signals
Prerequisites: ECEN 3513.
Description: Concepts of probability, statistics, and random variables necessary for study of signals and systems involving uncertainty and randomness. Applications of probability and statistics to practical problems in electrical and computer engineering including communications, signal processing, image processing, and control systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4523 Communication Theory
Prerequisites: Currently enrolled in ECEN 4503 or have taken ECEN 4503 or both ECEN 3513 and STAT 4033.
Description: Noise in modulation systems. Digital data transmission. Design of optimal receivers. Introduction to information theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4533 Data Communications
Prerequisites: (ECEN 4503 prerequisite or concurrent enrollment) or (ECEN 3513 and STAT 4033).
Description: Signal detection in noise. Tradeoffs between bandwidth signal-to-noise ratio and rate of information transfer. Transmission multiplexing and error handling. Elements of computer network design. Data link protocols.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4613 Microwave Engineering
Prerequisites: ECEN 3613.
Description: Review of EM and transmission line theory. Microwave network theory: Impedance and admittance matrices, scattering matrix and S-parameters, ABCD and transfer matrices. Signal-flow diagrams. Matching circuits and microwave filters. Passive microwave devices: power dividers, hybrids, couplers, resonators, isolators, and circulators. Class projects such as radar, communication, imaging, or sensing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4743 Introduction to Biomedical Engineering Modeling and Systems
Prerequisites: ECEN 3513.
Description: An overview of the field of biomedical engineering and an introduction of the modeling approaches implemented in biomedical engineering. Topics include bio-electronics, biomechanics, compartmental modeling, bio-signal processing, biomedical optics, etc. The course will demonstrate a few of major fields of activity in which biomedical engineers are engaged and modeling approaches are implemented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4763 Introduction to Digital Signal Processing
Prerequisites: ECEN 3513.
Description: Introduction to discrete linear systems using difference equations and z-transforms. Discrete Fourier analysis. Design of digital filters. Sampling theorem. Applications of digital signal processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4773 Real Time Digital Signal Processing
Prerequisites: ECEN 4763.
Description: DSP Processor architectures and programming. A/D, D/A, polled and interrupt-driven I/O. Realtime implementation of FIR/IIR filters, the FFT, and other DSP algorithms on special purpose DSP hardware from Motorola, Texas Instruments and others. Link between DSP theory and practical implementation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 4823 Design of Optical Systems
Prerequisites: ECEN 3714 with a "C" or better.
Description: Introduction to optics through the design, construction, and characterization of optical systems. Emphasis on geometrical optics and spectroscopy. Course previously offered as ECEN 3813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 4843 Design of Lasers and Systems
Prerequisites: ECEN 3714
Description: Introduction of the design of lasers and optical systems based on lasers including the design, construction, and characterization of lasers. Gaussian beams and optics, laser gain materials, laser cavities, advanced topics. Course previously offered as ECEN 4813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Elec & Computer Engr

ECEN 5000 Thesis
Description: A student studying for the master's degree will enroll in this course for a maximum of six credit hours. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5030 Professional Practice
Prerequisites: Department Permission Required.
Description: Experience in application of electrical engineering principles to typical problems encountered in industry and government engineering design and development projects. Solutions to the problems require participation by the student in the role of junior engineer or engineer-intern. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5060 Special Topics
Prerequisites: Advisor permission.
Description: Engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5070 Directed Studies
Prerequisites: Consent of instructor.
Description: Investigation outside of the classroom of topics not normally covered in lecture courses. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 5080 Fundamental Topics
Prerequisites: Advisor permission.
Description: Fundamental topics that are typically introduced in the senior year curriculum with additional depth and breadth commensurate with the graduate program. Repeat credit may be earned with difference course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5113 Power Systems Analysis by Computer Methods
Prerequisites: ECEN 4153 or Departmental Permission.
Description: Quasi-static control of power systems and analysis of power systems under abnormal operating conditions. Transient stability studies. Models formulated and solutions outlined for implementation on the computer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5123 Engineering Systems Reliability Evaluation
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Techniques and concepts needed for evaluating the long-term and short-term reliability of a system. Topics include static and spinning generation capacity; transmission, composite, interconnected, and dc system reliability evaluations; and power system security. Applications to systems other than power systems included. For students with little or no background in probability or statistics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5133 Power Electronics and Renewables
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Modeling and control aspects of power electronics for integrating renewable energy systems. Topics covered here will focus on power converter dynamics, indirect converter topologies, PWM technique, sliding mode control of converters, game theory based control, Maximum power point tracking, control of generators for different renewable energy systems. Simulation tools will be discussed as appropriate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5153 Direct Energy Conversion
Prerequisites: Departmental Permission.
Description: Energy conversion techniques and applications; thermo-electrics, thermionics, fuel cells, MHD and other processes involving electrical, mechanical and thermal energies. State-of-the-art developments in direct energy conversion using selected papers from journals and other publications. Gives the student a proper perspective of the possibilities and problems associated with satisfying future energy requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5163 Cyber Physical Systems and Smart Grid
Prerequisites: ECEN 4503 or Departmental Permission.
Description: A comprehensive overview of advanced cyber-physical technologies and ideas that make the power grid smart. Topics covered include: basics of electric power systems; fundamentals of smart grids; the role of measurement, communications and monitoring technologies in smart grids; integrated applications of control and information advancements in a smart grid; Distributed Energy Resources (DERs) including renewable energy resources, energy storage systems, electric vehicles, and demand response; various functions and tools for managing smart grids; and interoperability, standards, and cyber security in smart grids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5193 Power Economics and Regulation
Prerequisites: ECEN 3113 or Departmental Permission.
Description: Natural monopoly, regulated mono-polities. Power pricing. Deregulation and the Energy Policy Act of 1992. Bulk power markets, transmission access and wheeling. Economic dispatch and system operations. Security and reliability. Environmental externalities and Clean Air Act compliance. Procurement of new capacity and integrated resource planning. Co-generators and independent power producers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5223 Digital Systems Testing
Prerequisites: Departmental Permission.
Description: Testing of combinational and sequential circuits. Test generation techniques. Design of reliable and testable circuits and systems. Testing for LSI and VLSI.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5233 Embedded Sensor Networks
Prerequisites: Departmental Permission.
Description: Analysis and design of wireless networks, including the integration of sensing, computation, and wireless communication within an embedded system. Mobile sensor networks and body sensor networks. Real world application and new innovations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5253 Digital Computer Design
Prerequisites: ECEN 4233 or ECEN 4243 or Departmental Permission.
Description: Arithmetic algorithms and the design of the arithmetic/logic unit (ALU). Serial and parallel data processing; control and timing systems; microprogramming; memory organization alternatives; input/output interfaces. Same course as CS 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5263 VLSI Digital Systems Design
Prerequisites: ECEN 4303 or Departmental Permission.
Description: Design of very large-scale digital systems on a single chip. Review of MOS technology. Design rules imposed by fabrication techniques. Systematic structures for control and data flow; system timing; highly concurrent systems. Experimental opportunities available.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5283 Computer Vision
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Fundamental concepts and tools in computer vision. Image formation and camera calibration. Early vision: edge detection, feature extraction, texture analysis. Mid-level vision: clustering, segmentation and object detection. High-level vision: object recognition using principal component analysis (PCA) and video analysis by hidden Markov models (HMMs).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5313 Analog Integrated Circuits
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Advanced studies of analog CMOS IC design with an emphasis on EDA. Topics include bandgap reference, oscillators, PLL, linear regulators, DC-OC converters, low voltage, low power, and energy harvesting techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5333 Semiconductor Devices
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Semiconductor crystal structure and device fabrication, carrier distribution and transport, pn junction and diode, metal-semiconductor heterojunction, MOSFET, BJT and optoelectronic devices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5363 Mixed-Signal Integrated Circuits
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Analysis and design of CMOS mixed-signal IC for VLSI systems. Topics include comparators, switched-capacitor circuits, sample-and-hold, Nyquist and oversampling ADC/DAC, delta-sigma modulation, and digital calibration techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5373 RF Microwave Circuit Design
Prerequisites: ECEN 4613 or Departmental Permission.
Description: Smith chart, single- and multi-port network, filter design, RF/microwave components and modeling, matching and biasing network, amplifier, oscillators and mixers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5413 Optimal Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Optimal control theory for modern systems design. Specification of optimum performance indices. Dynamic programming, calculus of variations and Pontryagin's minimum principle. Iterative numerical techniques for trajectory optimization. Same course as MAE 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5433 Robotics Kinematics, Dynamics and Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Kinematic and dynamic analysis of robot manipulators. Inverse kinematics, motion planning and trajectory generation. Industrial practice in robot servo control. Dynamics and control in the presence of constraints. Actuators and sensors. Force sensors and vision systems. Robotic force control and its applications in industry. Passivity-based control algorithms. Advanced control techniques for motion and force control. Same course as MAE 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5463 Nonlinear System Analysis and Control
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Failure of superposition of effects; phase-plane analysis; limit-cycles; Lyapunov stability; hyperstability and input-output stability; controllability and observability of nonlinear systems; feedback linearization; robust nonlinear control system design. Same course as MAE 5463. Course previously offered as ECEN 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5473 Digital Control Systems
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Input-output and state-space representation of linear discrete-time systems. Approximate methods in discrete-time representation. Stability methods. Controllability, observability, state estimation, and parameter identification. Design and analysis of feedback control system using frequency-domain and state-space methods. Introduction to optimal control. Same course as MAE 5473. Course previously offered as ECEN 6413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5483 Advanced Mechatronics Design
Prerequisites: MAE 4733 or Departmental Permission.
Description: Optimizing C programming code for microcontrollers using the assembly language instruction set. RS-232 microcontroller communication protocol. Controller Area Network (CAN) communication protocol plus hands-on CAN bus development boards, advanced topics which could include but are not limited to sensor design, real time operating systems, and advanced communication protocols. Same course as MAE 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5513 Stochastic Systems
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Theory and applications involving probability, random variables, functions of random variables, and stochastic processes, including Gaussian and Markov processes. Operations on random variables, transformation of random variables, single and multiple random variables, correlation, power spectral density, and stationary and non-stationary random processes. Random sums and sequences. Response of linear systems to stochastic processes. State-space formulation and covariance analysis. Same course as MAE 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5533 Modern Communication Theory
Prerequisites: ECEN 5513 or Departmental Permission.
Description: Noise as a random process, analog and digital signal detection in the presence of noise, optimum receiver design using signal space concepts and introduction to information theory. Trade-offs between bandwidth, signal-to-noise ratio and the rate of information transfer. Example system designs include earth satellite, deep space and terrestrial communication systems and computer communication networks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5543 Data Transportation and Protection
Prerequisites: Departmental Permission.
Description: Data and its representation; finite field matrices, pseudorandom sequences; information protection; space division networks; synchronization; and channel and error control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5553 Telecommunications Systems
Prerequisites: Departmental Permission.
Description: Surveys the ways and means that voice, data and video are moved long distances. Covers computer networks (Ethernet LAN's, Internet WAN's); telephone systems (PSTN, VoIP and cellular telephony); video (MPEG, H.323, and IPTV); and last mile delivery systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5573 Wireless Communication
Prerequisites: ECEN 5533 or Departmental Permission.
Description: Wireless channel characterization: large-scale and small scale fading. Techniques to combat fading; diversity techniques, coding techniques, CDMA, OFDM, MIMO. Advanced communication systems such as 5G and Beyond cellular systems, mmWave and Teraherz communications, massive MIMO, and UAV-assisted communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5613 Electromagnetic Theory
Prerequisites: ECEN 3623 or Departmental Permission.
Description: First graduate level treatment of classical electromagnetic theory. Wave equation, potential theory, boundary conditions. Rectangular, cylindrical and spherical wave functions. Conducting and dielectric guiding structures. Scattering and radiation. Introduction to numerical techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5623 Antenna Theory
Prerequisites: ECEN 3623 or Departmental Permission.
Description: Fundamental antenna parameters, including directivity, efficiency, radiation resistance, and pattern. Analysis of dipole, loop, aperture, broad- band, and traveling wave antennas. Array theory. Introduction to numerical techniques used in modern antenna design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5633 Radar Theory
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Theoretical treatment of radar principles. Overview of radar systems and techniques, radar equation, integration of signals. Radar cross-section of single and multiple targets. Waveform design, resolution, ambiguities and accuracy. Range, speed and angular measurements. Detection of targets in noise. Statistical description of clutter. Signal processing techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5643 Antennas and Propagation for Wireless Communications
Prerequisites: ECEN 4503 or Departmental Permission.
Description: Aspects of radiowave propagation for fixed and mobile communication systems. Review of Maxwell's equations and plane wave propagation, antenna principles. Reflection, refraction, diffraction, fading and scintillation, attenuation, ducting, diversity. Propagation in a cellular environment. Satellite communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5683 Biomedical Optics
Prerequisites: ECEN 4843 or Departmental Permission.
Description: Biomedical optics, also often termed as biophotonics, is highly interdisciplinary subject on applying light for diagnostic detection and manipulation of biological tissue. This course introduces fundamental concepts and principal technologies of biomedical optics or biophotonics to graduate students and upper-level undergraduate students. The course includes three parts: The first part discusses light-tissue interaction. The second part introduces approaches to modeling photon propagation in tissue. The third part details several representative light-based sensing and imaging technologies for probing biological tissues at different spatial, spectral, and temporal scales for either morphological or functional diagnosis. Topics of therapeutic use of light will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5713 Linear Systems
Prerequisites: ECEN 4413 or Departmental Permission.
Description: Introduction to the fundamental theory of finite-dimensional linear systems with emphasis on the state-space representation. Mathematical representations of systems; linear dynamic solutions; controllability, observability, and stability; linearization and realization theory; and state feedback and state observer. Same course as MAE 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5733 Neural Networks
Prerequisites: ECEN 5713 or Departmental Permission.
Description: Introduction to mathematical analysis of networks and learning rules, and on the application of neural networks to certain engineering problems in image and signal processing and control systems. Same course as CHE 5733 and MAE 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5743 Deep Learning
Prerequisites: ECEN 5733 or equivalent and Departmental Permission.
Description: Analysis, design, training and applications of deep neural networks. Topics include: fundamental deep network architectures, such as multilayer perceptrons, convolutional neural networks, recurrent neural networks and transformers; deep learning software frameworks, such as TensorFlow and PyTorch; application areas, such as image processing (e.g., object detection, object classification, image segmentation) and sequence processing (e.g., language translation, voice assistants, speech recognition, time series prediction).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5763 Digital Signal Processing
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Discrete-time signals and systems; transform analysis of linear systems; design and implementation of digital filters; analog to digital conversion, quantization effects, and oversampling; discrete Fourier transform and the FFT; Fourier analysis using the DFT; introduction to parametric signal modeling; and practical applications of digital signal processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5773 Intelligent Systems
Prerequisites: ECEN 5713 or Departmental Permission.
Description: Introduction to the state-of-the art intelligent control and system successfully deployed to industrial and defense applications. Emerging intelligent algorithms (e.g., NN, FS, GA, EP, DES); intelligent control architecture (e.g., bottom-up, top-down, seminotics); reinforcement learning and hybrid systems; and case studies and design projects. Same course as MAE 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5783 Medical Imaging
Prerequisites: ECEN 4743 or ECEN 4763 or Departmental Permission.
Description: A comprehensive introduction to the physics and engineering foundations of the standard medical imaging modalities used today. Topics include radiation, radiation-interaction with matter, X-ray radiography, ultrasonography, X-ray computed tomography, image reconstruction and analysis, magnetic resonance imaging, nuclear radiation based imaging, and image monitoring aspects of radiation therapy. The fundamental mathematics underlying each imaging modality is reviewed and the hardware needed to implement each system is examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5793 Digital Image Processing
Prerequisites: ECEN 4763 or Departmental Permission.
Description: Digital image processing including image acquisition, enhancement, restoration, color image processing, morphological processing, segmentation, representation and description.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5803 Geometrical Optics
Prerequisites: PHYS 3213 or Departmental Permission.
Description: Foundations of geometrical optics, geometrical theory of optical imaging, geometrical theory aberrations, image forming instruments. Same course as PHYS 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5823 Physical Optics
Prerequisites: PHYS 3213 or ECEN 4823 or ECEN 4843 or Departmental Permission.
Description: Multiple beam interference, diffractions, imaging, near field optical probes of matter, surface plasmons, light scattering from random media, optical coherence tomography- biomedical applications, negative materials, perfect lenses and super resolution. Same course as PHYS 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5833 Fiber-Optic Communication Systems
Prerequisites: ECEN 4533 or Departmental Permission.
Description: The fundamentals of fiber-optic communication systems are described in detail. Fiber electromagnetic behaviors, laser and LED transmitters, photodetectors and semiconductor receivers and other hardware components are covered. System level design and integration concepts are covered including modulation schemes, multiplexing, dispersion and power budget, sampling, incoherent and coherent detection, error control, and network distribution. A historical framework shows how technical capabilities and growing communication needs forced fiber systems evolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5843 Microelectronic Fabrication
Prerequisites: ECEN 3314 or Departmental Permission.
Description: Contamination control and clean-room, vacuum systems, wafer manufacturing. Photolithography and alternative lithographic techniques. Physical and chemical vapor deposition, oxidation, etching, doping, packaging, formation of semiconductor devices and circuits. A series of Fabrication lab projects is conducted starting from bare silicon wafers to fabricate Optoelectronic circuits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5853 Ultrafast Optoelectronics
Prerequisites: ECEN 5833 or Departmental Permission.
Description: Principles in ultrafast lasers and terahertz radiation are discussed. Topics include generation, propagation, amplification, and measurement of femtosecond optical pulses. Generation, detection, and manipulation of terahertz waves as fundamentals to understand how time-domain spectroscopy and imaging work will be described. Selected advanced topics in ultrafast metamaterials and plasmonics will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 5923 Introduction to MEMS
Prerequisites: ECEN 5843 or Departmental Permission.
Description: Fundamentals of Microsystems. Topics include: energy transduction mechanisms, energy dissipation modeling, energy methods, mechanics of small scale, fabrication process design, micromachining, electronic interface.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6000 Dissertation
Prerequisites: Consent of major professor.
Description: Independent research for students continuing graduate study beyond the level of the MS degree. Offered for variable credit, 1-12 credit hours, maximum of 36 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6001 PhD Seminar Series
Prerequisites: Approval of ECEN department head.
Description: Seminar series for PhD studies and research.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6050 Preliminary PhD Research and Proposal
Prerequisites: Consent of adviser.
Description: Independent research and report of an advanced electrical engineering problem. Work performed serves as foundation of the oral PhD preliminary exam. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6060 Special Topics
Prerequisites: Advisor permission.
Description: Advanced engineering topics not normally included in existing courses. Repeat credit may be earned with different course subtitles assigned. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6070 Advanced Directed Studies
Prerequisites: Admission into PhD program and consent of instructor.
Description: Investigation outside of the classroom of topics not normally covered in lecture courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Elec & Computer Engr

ECEN 6123 Special Topics in Power Systems
Prerequisites: ECEN 5113.
Description: Selected relevant current topics related to power system operation and planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6253 Advanced Topics in Computer Architecture
Prerequisites: ECEN 5253 or CS 5253.
Description: Innovations in the architecture and organization of computers, with an emphasis on parallelism. Topics may include pipelining, multiprocessors, data flow, and reduction machines. Same course as CS 6253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6263 Advanced VLSI Design and Applications
Prerequisites: ECEN 5223 and ECEN 5263.
Description: System timing. Designing testable integrated circuits. Specialized parallel processing architectures. Application examples.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6453 Adaptive Control
Prerequisites: ECEN 5473 or ECEN 5713 or MAE 5473 or MAE 5713.
Description: Analysis and design of control techniques that modify their performance to adapt to changes in system operation. Review of systems analysis techniques, including state variable representations, linearization, discretization, covariance analysis, stability, and linear quadratic Gaussian design. On-line parameter estimation, model reference adaptive systems, self-tuning regulators, stable adaptive systems. Same course as MAE 6453. Course previously offered as ECEN 6450.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6483 Robust Multivariate Control Systems
Prerequisites: ECEN 5713 or MAE 5713.
Description: Introduction to multivariable systems: SISO robustness vs. MIMO robustness; multivariable system poles and zeros; MIMO transfer functions; multivariable frequency response analysis; multivariable Nyquist theorem; performance specifications; stability of feedback systems; linear fractional transformations (LFT's); parameterization of all stabilizing controllers; structured singular value; algebraic ricatti equations; H2 optimal control; H-infinity controller design. Same course as MAE 6483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6523 Information Theory
Prerequisites: ECEN 5513 or consent of instructor.
Description: Mathematical theory of information (Shannon theory) including information measure and transmission rates and capacities. Source coding theory including algebraic and error-correcting codes. Design of waiver-forms for noise immunity. Information transfer in learning systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6803 Photonics I: Advanced Optics
Prerequisites: ECEN 3813 or PHYS 3213 or consent of instructor.
Description: Advanced optics including spectral and time characteristics of detectors, characteristics of lasers, time, spectral and spatial parameters of laser emission, interferometric techniques, and nonlinear effects such as two-photon absorption and second and third harmonic generations. Emphasis on ultrashort laser pulses. Same course as CHEM 6803 & PHYS 6803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6810 Photonics II: THz Photonics and THz-TD
Prerequisites: ECEN 6803.
Description: Concepts and techniques of driving electronic circuitry with ultra short laser pulses to generate and detect freely propagating pulses of THz electromagnetic radiation using several operational research systems. Same course as CHEM 6810 & PHYS 6810. Course previously offered as ECEN 6811. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6820 Photonics II: Spectroscopy II
Prerequisites: ECEN 6803.
Description: Operating principles and applications of laser spectroscopy of atoms, molecules, solids and complex fluids. Absorption, emission, photon correlation, coherence, time resolved Fourier transform. Raman spectroscopy and non-linear optical. Same course as CHEM 6820 & PHYS 6820. Course previously offered as ECEN 6821. Offered for fixed credit, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6823 Advanced Optical Techniques
Prerequisites: ECEN 5853.
Description: State-of-the-art optical devices and research methodologies. Investigation and discussion of contemporary developments in non-linear optical devices and laser applications. Includes both analytical and experimental techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6830 Photonics II: Spectroscopy III
Prerequisites: ECEN 6803.
Description: Advanced spectroscopic instruments and methods used for investigation of semi-conductors and solid state material. Stimulated emission characterized both in wavelength and in time. Time-resolved fluorescence measurements. Multiphotonic excitations. Fast measuring techniques, including subnanosecond detectors, picosecond streak cameras, and ultra fast four-wave mixing and correlation techniques. Time-dependent photoconductivity measurements. Same course as CHEM 6830 & PHYS 6830. Course previously offered as ECEN 6831. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6840 Photonics III: Microscopy I
Prerequisites: CHEM 3553 or consent of instructor.
Description: The structure and imaging of solid surfaces. Basics of scanning probe microscopy (SPM). Contact and non-contact atomic force microscopy (AFM). Scanning tunneling microscopy (STM) in air. Same course as CHEM 6840 & PHYS 6840. Course previously offered as ECEN 6841. Offered for fixed credit hours, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6843 Advanced Microelectronic Fabrication
Prerequisites: ECEN 5843.
Description: Photolithography, wet and dry etching, thermal and electron beam evaporation, photomask design using L-Edit, silicon devices processing, quartz devices processing, silicon-on-sapphire devices processing. GaAs devices processing and MEMS devices processing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Elec & Computer Engr

ECEN 6850 Photonics III: Microscopy II
Prerequisites: CHEM 3553 or consent of instructor.
Description: Advanced techniques of scanning probe microscopy (SPM). Magnetic force microscopy, Kelvin force microscopy, scanning probe microscopy (STM) in vacuum. Characterization of materials with SPM. Nanolithography with SPM. Device manufacturing and analysis. Same course as CHEM 6850 & PHYS 6850. Course previously offered as ECEN 6851. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6860 Photonics III: Microscopy III and Image Processing
Prerequisites: ECEN 5793.
Description: Digital image processing, including projects. Image acquisition and display, image enhancement, geometric operations, linear and nonlinear filtering, image restoration, edge detection, image analysis, morphology, segmentation, recognition, and coding/compression. Same course as CHEM 6860 & PHYS 6860. Offered for fixed credit hours, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6870 Photonics IV: Synthesis and Devices I
Prerequisites: ECEN 6803 and ECEN 6840.
Description: Preparation of functional nanostructures and related optical/electronic devices. Physical and chemical methods of thin film deposition. Engineering of prototypes of light emitting diodes, sensors, optical limiting coatings, lithographic patterns. Same course as CHEM 6870 & PHYS 6870. Course previously offered as ECEN 6871. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6880 Photonics IV: Semiconductor Devices, Testing and Characterization
Prerequisites: ECEN 6803 and ECEN 6840.
Description: Test and characterization of semiconductor and optoelectronic devices. Hall effect, four point probe, CV and IV measurements, optical pump-probe, photoluminescence and electro-optics sampling. Same course as CHEM 6880 & PHYS 6880. Course previously offered as ECEN 6881. Offered for 1 fixed credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

ECEN 6890 Photonics IV: Semiconductor Synthesis and Devices III
Prerequisites: ECEN 6803.
Description: Processing, fabrication and characterization of semiconductor optoelectronic devices in class 100/10000 cleanrooms. Cleanroom operation including general procedure for material processing and device fabrication. Device processing using a variety of processing such as mask aligner, vacuum evaporators and rapid thermal annealer. Testing using optical and electrical testing apparatus such as I-V, C-V, Hall, and optical spectral measurement systems. Same course as CHEM 6890 & PHYS 6890. Course previously offered as ECEN 6891. Offered for fixed 1 credit hour, maximum of 4 credit hours.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Elec & Computer Engr

Undergraduate Programs

- Computer Engineering (CPE), Minor (p. 2340)
- Computer Engineering, BSCP (p. 2341)
- Computer Engineering: Software Engineering, BSCP (p. 2343)
- Electrical Engineering (ELEN), Minor (p. 2345)
- Electrical Engineering, BSEE (p. 2346)

Minors

- Computer Engineering (CPE), Minor (p. 2340)
- Electrical Engineering (ELEN), Minor (p. 2345)

Graduate Programs

The School of Electrical and Computer Engineering offers three graduate degrees, all in electrical engineering: Master of Engineering (MEngEE), Master of Science (MSEE), and Doctor of Philosophy (PhDEE). These graduate degree programs are flexible in course selection and emphasis. Both the Master of Engineering and the Master of Science programs are available online.

Master of Engineering

- This degree program is tailored to students who wish to gain advanced knowledge and expertise in subject areas associated with their professional pursuits.
- This non-research, non-thesis, instructional program is ideal for Distance Education students or for baccalaureate graduates interested in professional development.
- This program is available online.
- Requirements: 33 credit hours of coursework. Specific requirements for the MEngEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Master of Science

- This degree program is tailored to students who wish to gain advanced knowledge in subject areas associated with their professional pursuits.
- The program emphasizes research as part of the learning experience and culminates with the defense of a thesis.
- This program is ideal for students who wish to pursue a PhD.
- This program is available online.
- Requirements: 24 credit hours of coursework and 6 credit hours of thesis research. Specific requirements for the MSEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

The Doctor of Philosophy

- This degree program is tailored to students who desire to have a teaching and research career in academia or a research career in industry or government laboratories.
- This program is ideal for those students who have a passion to acquire in-depth knowledge.
- The program emphasizes the creation of new knowledge during the research process, the publication of that knowledge, and the defense of a dissertation.
- Requirements: 67 total credit hours beyond the BSEE/BSCpE degree. Specific requirements for the PhD program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

The School of Electrical and Computer Engineering also offers a “4+1” degree program that combines the BSEE/BSCpE degree programs with the MEngEE degree program. The “4+1” program is only available to OSU baccalaureate students. It is designed to be completed in five years and to give students a broad-based undergraduate education in electrical engineering or computer engineering along with a highly in-depth graduate education in a few key areas. This program is ideal for those students who want advanced knowledge to enhance their competitiveness in the workforce and to satisfy their longing for in-depth knowledge that cannot be obtained in the baccalaureate degrees. Specific requirements for the “4+1” program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Students typically select coursework and participate in research projects in the following areas:

- Analog, mixed-signal, and RF electronics
- Artificial intelligence, machine learning and data fusion
- Biomedical engineering
- Communication systems, cybersecurity, and networks
- Computer architecture, VLSI digital circuits and computer arithmetic
- Control systems, robotics, and mechatronics
- Digital signal, image, and video processing
- Electromagnetics and THz sciences
- Energy and power
- Microcontrollers and embedded control
- Photonics and electro-optics
- AI-driven smart home and smart health

Admission Requirements

Admission to the Graduate College, as described under “General Regulations” in the “Graduate College” section of the University Catalog is required. Graduation from an electrical engineering or computer engineering program accredited by the ABET is required for admission to the School of Electrical and Computer Engineering. GRE scores are also required for admission to the doctoral program in the School of Electrical and Computer Engineering. Specific information can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Graduates from non-engineering fields such as mathematics, physics and computer science are also admitted to the School of Electrical and Computer Engineering graduate programs if an evaluation of the applicant’s official transcript indicates that the applicant is prepared to succeed in graduate-level coursework in electrical and computer engineering, or can be expected to do so after a reasonable amount of remedial coursework has been completed. This condition also applies to graduates of unaccredited engineering programs and engineering technology programs.

Degree Requirements

The Master of Engineering degree in Electrical Engineering (MEngEE) is awarded to those students who successfully complete an approved plan of study. The degree requires 33 credit hours of coursework; a thesis is not required. The plan of study requires, at a minimum, 24 hours of 5000-level courses, covering four areas in electrical and computer engineering (designated by second digit of the course number). Most plans of study include additional 5000-level courses, depending upon the background and particular educational goals of the student. Additional remedial work in undergraduate electrical and computer engineering courses may be required for students who do not have a sufficient background in electrical engineering. Specific requirements for the MEngEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

The Master of Science degree in Electrical Engineering (MSEE) is awarded to those students who successfully complete an approved plan of study. The degree requires 24 credit hours of coursework plus 6 credit hours for the thesis. In addition to the thesis requirement, the plan of study requires, at a minimum, 21 hours of 5000-level courses in at least two areas in electrical and computer engineering (designated by second digit of the course number). Most plans of study include additional 5000-level courses, depending upon the background and particular educational goals of the student. Each student is encouraged to include courses in supporting disciplines such as mathematics, physics, computer science or other engineering fields. Additional remedial work in undergraduate electrical and computer engineering courses may be required for students who do not have a sufficient background in electrical engineering. Specific requirements for the MSEE program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

The Doctor of Philosophy (PhDEE) degree is granted to recognize high achievement in coursework selected from the broad field of electrical and computer engineering. The degree is conferred on those who demonstrate the ability to perform independent research in a chosen field of specialization that generates new knowledge, as presented in a dissertation. For this degree the Graduate College requires a minimum of 67 credit hours of acceptable academic work beyond the bachelor’s degree, including credit for the dissertation. Specific requirements for the PhD program can be found in the "Memorandum to Graduate Students" at https://ceat.okstate.edu/ece/graduate-programs.html.

Faculty

Guoliang Fan, PhD—**Professor and Cal and Marilyn Vogt Professorship, and Department Head**
Associate Dean for CEAT Research, Professor, and Henry Bellmon Chair: Charles F. Bunting, PhD
Regents Professor: Gary Yen, PhD (Emeritus); Rama Ramakumar, PhD, PE (Emeritus); Subhash Kak, PhD (Emeritus)
Professor and Edward Joullian Endowed Chair in Engineering: James Stine, PhD
Associate Professor and PSO-Albrecht Naeter Professorship in Electrical Engineering: John O'Hara, PhD
Assistant Professor and Jack H. Graham Endowed Fellow of Engineering: John Hu, PhD
Assistant Professor and Distinguished Fellow of Electrical and Computer Engineering: Hamidreza Nazaripouya, PhD
Professors: Martin T. Hagan, PhD, PE (Emeritus); Daqing Piao, PhD; Weihua Sheng, PhD; Keith A. Teague, PhD, PE (Emeritus); Jeffrey L. Young; James C. West (Emeritus), PhD; Weili Zhang, PhD
Associate Professor: Qi Cheng, PhD
Assistant Professors: Pejman Ghasemzadeh, PhD; Scott Mattison, PhD; Ying Zhang, PhD; Shahriar Shahabuddin, PhD; Hritom Das, PhD; Syed Shahan Jehangir, PhD
Assistant Professor of Practice: Nathan Lannan, MS

Computer Engineering (CPE), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 21

Code	Title	Hours
Required		
ECEN 2233	Fundamentals of Digital Logic Design	3
ECEN 2714	Fundamentals of Electric Circuits	4
ENSC 2611	Electrical Fabrication Lab	1
ECEN 3714	Network Analysis	4
ECEN 3213	Computer Based Systems in Engineering	3
Hours Subtotal		**15**
Electives (choose 2)		
Select two courses from the following:		6
ECEN 4213	Embedded Computer Systems Design	
ECEN 4233	High Speed Computer Arithmetic	
ECEN 4273	Software Engineering	
ECEN 4293	Applied Numerical Methods for Python for Electrical Engineers	
ECEN 4223	Mobile Robotics	
ECEN 4243	Computer Architecture	
ECEN 4283	Computer Networks	
ECEN 4493	Artificial Intelligence in Engineering	
Hours Subtotal		**6**
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Computer Engineering, BSCP

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) (With a grade of "C" or better)	4
MATH 2153	Calculus II (Q) (With a grade of "C" or better)	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) (With a grade of "C" or better)	4
PHYS 2114	University Physics II (LN) (With a grade of "C" or better)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2233	Differential Equations (With a grade of "C" or better)	3
MATH 2163	Calculus III (With a grade of "C" or better)	3
Engineering Science		
ECEN 3213	Computer Based Systems in Engineering (With a grade of "C" or better)	3
ENSC 2611	Electrical Fabrication Lab (With a grade of "C" or better)	1
Computer Science		
CS 1113	Computer Science I (Q) (With a grade of "C" or better)	3
CS 2351	Unix Programming	1
CS 2433	C/C++ Programming (With a grade of "C" or better)	3
CS 3653	Discrete Mathematics for Computer Science (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 2233	Fundamentals of Digital Logic Design (With a grade of "C" or better)	3
ECEN 2714	Fundamentals of Electric Circuits (With a grade of "C" or better)	4
Hours Subtotal		**28**
Major Requirements		
Mathematics		
MATH 3013	Linear Algebra (Q) (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 3314	Electronic Devices and Applications	4
ECEN 3513	Signal Analysis	3
ECEN 3613	Applied Fields and Waves I	3
ECEN 3714	Network Analysis (With a grade of "C" or better)	4
ECEN 4013	Design of Engineering Systems	3
ECEN 4293	Applied Numerical Methods for Python for Electrical Engineers	3
ECEN 4024	Capstone Design	4
ECEN 4213	Embedded Computer Systems Design	3
ECEN 4243	Computer Architecture	3
ECEN 4303	Digital Integrated Circuit Design	3
ECEN 4503	Applications of Probability and Statistics to Random Signals	3
Computer Science		
CS 4323	Design and Implementation of Operating Systems I	3
or ECEN 4283	Computer Networks	
CS 3353	Data Structures and Algorithm Analysis I (With a grade of "C" or better)	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
ECEN Electives		
Select two courses from the departmentally approved list and with advisor approval.		6
Hours Subtotal		**54**

Controlled Electives		
Select 3 hours of the following controlled electives:		3
ENSC 2113	Statics	
ENSC 2123	Elementary Dynamics	
ENSC 2143	Strength of Materials	
ENSC 2213	Thermodynamics	
Engineering courses 3000 level and above		
Other courses such as MATH, CS, STAT, etc., may be approved by advisor		
Hours Subtotal		**3**
Total Hours		**125**

[1]

If a “B” or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, then ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (p. 1004)).

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A "C" or better in courses listed above as requiring a "C" or better.
3. The major engineering design experience, capstone course, is satisfied by ECEN 4013 Design of Engineering Systems and ECEN 4024 Capstone Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Computer Engineering: Software Engineering, BSCP

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 128

Code	Title	Hours
General Education Requirements		
English Composition		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) (With a grade of "C" or better)	4
MATH 2153	Calculus II (Q) (With a grade of "C" or better)	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) (With a grade of "C" or better)	4
PHYS 2114	University Physics II (LN) (With a grade of "C" or better)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2233	Differential Equations (With a grade of "C" or better)	3
MATH 2163	Calculus III (With a grade of "C" or better)	3
Engineering Science		
ECEN 3213	Computer Based Systems in Engineering (With a grade of "C" or better)	3
ENSC 2611	Electrical Fabrication Lab (With a grade of "C" or better)	1
Computer Science		
CS 1113	Computer Science I (Q) (With a grade of "C" or better)	3
CS 2351	Unix Programming	1
CS 2433	C/C++ Programming (With a grade of "C" or better)	3
CS 3653	Discrete Mathematics for Computer Science (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 2233	Fundamentals of Digital Logic Design (With a grade of "C" or better)	3
ECEN 2714	Fundamentals of Electric Circuits (With a grade of "C" or better)	4
Hours Subtotal		**28**
Major Requirements		
Mathematics		
MATH 3013	Linear Algebra (Q) (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 3314	Electronic Devices and Applications	4
ECEN 3513	Signal Analysis	3
ECEN 3613	Applied Fields and Waves I	3
ECEN 3714	Network Analysis (With a grade of "C" or better)	4
ECEN 4013	Design of Engineering Systems	3
ECEN 4293	Applied Numerical Methods for Python for Electrical Engineers	3
ECEN 4024	Capstone Design	4
ECEN 4213	Embedded Computer Systems Design	3
ECEN 4243	Computer Architecture	3
ECEN 4303	Digital Integrated Circuit Design	3
ECEN 4503	Applications of Probability and Statistics to Random Signals	3
Computer Science		
CS 4323	Design and Implementation of Operating Systems I	3
or ECEN 4283	Computer Networks	
CS 3353	Data Structures and Algorithm Analysis I (With a grade of "C" or better)	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
Software Engineering Electives		
12 credit hours designated as software engineering courses		12

Hours Subtotal	**60**
Total Hours	**128**

1

If a “B” or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, then ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (p. 1004)).

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A "C" or better in courses listed above as requiring a "C" or better.
3. The major engineering design experience, capstone course, is satisfied by ECEN 4013 Design of Engineering Systems and ECEN 4024 Capstone Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Electrical Engineering (ELEN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 22

Code	Title	Hours
Required		
ECEN 2233	Fundamentals of Digital Logic Design	3
ECEN 2714	Fundamentals of Electric Circuits	4
ENSC 2611	Electrical Fabrication Lab	1
ECEN 3714	Network Analysis	4
ECEN 3314	Electronic Devices and Applications	4
Hours Subtotal		**16**
Electives (choose 2)		
Select two courses from the following:		6
ECEN 3113	Energy, Environment and Economics	
ECEN 4133	Power Electronics	
ECEN 4153	Power System Analysis and Design	
ECEN 4313	Linear Electronics Circuit Design	
ECEN 4353	Communication Electronics	
ECEN 4303	Digital Integrated Circuit Design	
ECEN 3723	Systems I	
ECEN 4413	Automatic Control Systems	
ECEN 4493	Artificial Intelligence in Engineering	
ECEN 3513	Signal Analysis	
ECEN 4763	Introduction to Digital Signal Processing	
ECEN 4743	Introduction to Biomedical Engineering Modeling and Systems	
ECEN 4523	Communication Theory	
ECEN 4533	Data Communications	
ECEN 4613	Microwave Engineering	
ECEN 4823	Design of Optical Systems	
ECEN 4843	Design of Lasers and Systems	
MAE 4053	Automatic Control Systems	
Hours Subtotal		**6**
Total Hours		**22**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Electrical Engineering, BSEE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) (With a grade of "C" or better)	4
MATH 2153	Calculus II (Q) (With a grade of "C" or better)	3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) (With a grade of "C" or better)	4
PHYS 2114	University Physics II (LN) (With a grade of "C" or better)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2233	Differential Equations (With a grade of "C" or better)	3
MATH 2163	Calculus III (With a grade of "C" or better)	3
Engineering Science		
ENSC 2113	Statics (With a grade of "C" or better)	3
ENSC 2611	Electrical Fabrication Lab (With a grade of "C" or better)	1
ECEN 3213	Computer Based Systems in Engineering (With a grade of "C" or better)	3
Computer Science		
CS 1113	Computer Science I (Q) (With a grade of "C" or better)	3
CS 2433	C/C++ Programming (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 2233	Fundamentals of Digital Logic Design (With a grade of "C" or better)	3
ECEN 2714	Fundamentals of Electric Circuits (With a grade of "C" or better)	4
Hours Subtotal		**27**
Major Requirements		
Mathematics		
MATH 3013	Linear Algebra (Q) (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 3314	Electronic Devices and Applications	4
ECEN 3513	Signal Analysis	3
ECEN 3613	Applied Fields and Waves I	3
ECEN 3714	Network Analysis (With a grade of "C" or better)	4
ECEN 4013	Design of Engineering Systems	3
ECEN 4293	Applied Numerical Methods for Python for Electrical Engineers	3
ECEN 4024	Capstone Design	4
ECEN 4503	Applications of Probability and Statistics to Random Signals	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
ECEN Junior Electives		
Select one of the following with advisor approval:		3
ECEN 3113	Energy, Environment and Economics	
ECEN 3623	Applied Fields and Waves II	
ECEN 3723	Systems I	
ECEN 3903	Introduction to Semiconductor Devices	
ECEN Electives		
Select six ECEN courses from the departmentally approved list, including optionally one or more courses listed, but not taken, from the ECEN Junior Electives list above, and with advisor approval		18
Hours Subtotal		**54**
Controlled Electives		
Select 3 hours of the following controlled electives:		3

	CS 3653	Discrete Mathematics for Computer Science
	ENSC 2123	Elementary Dynamics
	ENSC 2143	Strength of Materials
	ENSC 2213	Thermodynamics
	Engineering courses 3000 level and above	
	Other courses such as MATH, CS, STAT, etc., may be approved by advisor	
Hours Subtotal		**3**
Total Hours		**124**

[1]

If a “B” or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, then ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (p. 1007)).

Graduation Requirements

1. A minimum Technical GPA of 2.00. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A "C" or better in courses listed above as requiring a C or better.
3. The major engineering design experience, capstone course, is satisfied by ECEN 4013 Design of Engineering Systems and ECEN 4024 Capstone Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Engineering and Technology Management

Master of Science in Engineering and Technology Management

Terry Collins, PhD, PE, CPEM—**Associate Professor and Director of MSETM**

OSU's Master of Science in Engineering and Technology Management is a rigorous degree program designed specifically for experienced engineers and scientists who are interested in accelerating their management careers. Managing today's global organizations requires a complex set of knowledge and skills. Effective planning, selection, implementation and management of technology, and the teams involved, are essential to the success of any business in today's time-critical, global markets. MSETM students learn to apply proven evaluation concepts and implementation strategies to fast moving, technical management decisions that make the difference in both career and business success addressing the real needs identified by industry leaders. The MSETM curriculum permits you to build a strong degree that directly addresses your needs and prepares you for the future, combining academic coursework with the latest business practices. The degree consists of 32 credit hours.

Please see the ETM website, https://etm.okstate.edu (https://etm.okstate.edu/), for more information about the program.

Program Educational Objectives

The OSU Engineering and Technology Management program exists to provide accessible, career-enhancing educational opportunities to practicing engineers, scientists and technical managers.

Program Student Learning Outcomes

ETM graduates will be able to:

1. View the organization systemically.
2. Critically analyze a management problem.
3. Identify and act on strategic issues.
4. Articulate and defend their ideas in a professional manner.

Admission Requirements

The guidelines for admission to the MSETM program are a bachelor's or higher degree, in engineering or the physical/mathematical sciences, with a 3.00 GPA, and professional employment in a related technical field since graduation with a bachelor's degree. Applicants not meeting these standards may be granted provisional admission based upon their overall academic and professional practice history and accomplishments. An applicant must submit the following documents:

1. OSU Application for Graduate Admission,
2. Official transcript of all academic work and degrees received,
3. Application fee ($50 domestic, $75 international),
4. MSETM program application,
5. A professional resume,
6. A statement of goals and objectives.

International applicants must also submit official results of the TOEFL with a minimum score of 89 IBT. Application instructions can be found online at https://etm.okstate.edu (http://etm.okstate.edu/).

Degree requirements can be found at https://etm.okstate.edu (https://etm.okstate.edu/).

Courses

ETM 4173 Cost Control and Analysis for Engineering and Technology Professionals
Prerequisites: IEM 3503 or IEM 3513 or permission of the department.
Description: Presents the fundamental concepts, methods, strategies and terminology necessary for engineers and engineering managers to interpret financial data properly. The information is designed to enable engineers and project managers to prepare, appraise, evaluate and approve financial plans to accomplish specific departmental and company objectives. May not be used for degree credit with ETM 5173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5110 Seminar
Prerequisites: Admission to the master's program or consent of instructor.
Description: Guided study in a topic area selected to enhance a student's program. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

ETM 5111 Introduction to Strategy, Technology and Integration
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Introduces students to the discipline of engineering and technology management, emphasizing the importance of strategy, technology, and integration, where timing of products and services are keys to market success.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5133 Capstone to Strategy, Technology and Integration
Prerequisites: Enrolled in last semester of MSETM program or consent of advisor.
Description: Independent analysis of a business problem. Student prepares a proposal and report that makes substantive use of MSETM material, and is a notable and relevant contribution to the student's organization. Readings and discussions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5143 Strategic Decision Analysis for Engineering and Technology Managers
Prerequisites: Admission to MSETM program or consent of instructor.
Description: Introduction to analytical concepts and procedures engineering and technology managers can use to strategically allocate resources to achieve business objectives. Strengths and weaknesses of alternative analytical procedures to evaluate alternative resource allocation decisions are outlined. Theoretical foundations, data requirements, application and strengths and weaknesses of cost-benefit analysis techniques when making strategic management decisions are evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5153 Foundations of Engineering Management
Prerequisites: Admission to MSETM program or consent of instructor.
Description: Principles and practices of the management of engineering and technology activities. Focus is on the tools and methods for solving problems in service and industrial systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5163 Business Innovation and Technology
Description: Advanced study of innovation and technology in a business setting. Strategic development of internal and external innovation. Planning, implementation, evaluation and control technology. No degree credit for those with credit in MGMT 5553 Management of Technology and Innovation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5173 Cost Control and Analysis for Engineering and Technology Professionals
Prerequisites: IEM 3503 or IEM 3513 or permission of the department.
Description: Presents the fundamental concepts, methods, strategies and terminology necessary for engineers and engineering managers to interpret financial data properly. The information is designed to enable engineers and project managers to prepare, appraise, evaluate and approve financial plans to accomplish specific departmental and company objectives. May not be used for degree credit with ETM 4173.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5211 Enterprise Integration
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Conceptualizing, designing and operating advanced manufacturing systems within an integrated enterprise-wide framework. Recent developments in computer and communication technologies and conceptual breakthroughs regarding the nature and behavior of integrated enterprises.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5221 Engineering Teaming
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Management and group issues inherent in the application and implementation of high performing work teams. The team's roles in improving organizational performance, along with the best practice procedures and techniques that increase team effectiveness.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5231 Benchmarking
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Benchmarking as an effective approach to study and adopt or adapt methodologies representing best specific practices from any industry; or identify and assess performance based on equivalent and common measures, usually from those in the same or similar industries, including competitors.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5241 Strategic Project Management
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: Overview of traditional project management concepts and techniques (i.e., Gantt charts, PERT, CPT) along with several technical issues related to their effective use. Fundamental nature of the problems associated with several technical issues related to their effective use. Fundamental nature of the problems associated with effectively managing and coordination of multiple discrete projects within an overall systems integration initiative. A framework for addressing these problems.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5253 Engineering Problem Solving and Decision-Making
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Processes and tools for problem solving and decision making in technical organizations. Focus on issues involving both quantitative and qualitative factors, where the quantitative factors are the result of an engineering analysis. Risk and systems analysis tools provide a fundamental background to understanding the context in which technical decisions are made. Concentration on general systems theory as developed by Ludwig von Bertalaffy. Course previously offered as ETM 5251.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5271 Technology Forecasting and Assessment
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: A framework and analytical tools for developing technological foresight. Technology monitoring, forecasting and assessment in the context of a family of emerging technologies.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5283 Strategic Planning
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Continuous and systematic process of thought about the future, resulting in a plan or specific course of action for communicating, coordinating and controlling activities. Strategic, long-range, tactical, operational, contingency and performance planning. Course previously offered as ETM 5282.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5291 Failure Mode and Effects Analysis in Design
Prerequisites: Admission to the MS in ETM program or consent of instructor.
Description: A design technique for reducing risk and improving reliability of a system, design or process. Potential failures in any of these studied methodically during design. The concepts, tools and techniques applicable to any product or process.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5311 Value Engineering
Prerequisites: Admission to the ETM program or consent of instructor.
Description: The application of Value Engineering (also known as Value Analysis, Value Methodology) to improve customer value for a project, process, or product during or after engineering design. The development of VE, its objectives, definitions and methodologies, the use of the VE system, and its range of application. VE's use for improving performance reducing life cycle cost.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5341 Leadership Strategies for Technical Professionals
Prerequisites: Admission to the ETM program or consent of instructor.
Description: Leadership strategies, principles, styles and dynamics that must be understood by technical professionals engaged in the creation of products, processes, and services in technology-based organizations.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5351 Planning Technical Projects
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Techniques and tools for project definition, staffing, scheduling, resource allocation, and time estimation. Behavioral and quantitative dimensions of project management. Performance measures of project progress and completion.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5361 Managing Virtual Project Teams
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: The management and group issues inherent in the application and implementation of effective teamwork in virtual work-spaces. The appropriate use of virtual team issues and challenges associated with effective teamwork; virtual team structures, process, and technology facilitation skills; group dynamics; and team motivation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5371 Ethics for Practicing Engineers
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: A values-based approach to professional ethics and its application to the decision-making in a technology-intensive environment. Ethical concerns related to the expectations of stakeholders.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5391 New Product Introduction and Commercialization
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Elements of the new product introduction (NPI) process and its impact or business strategy and planning. Organizational resources required for NPI and tools for determining commercial viability.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5411 Engineering Economic Analysis
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: Quantitative evaluation of investment alternatives. Basis for comparison of alternatives, including present worth, annual worth, rate of return and payout period methods. Decision-making among capital constrained and unequal-life projects. Benefit-cost and cost effectiveness analysis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5461 Intellectual Property Management
Prerequisites: Admission to MS in ETM program or consent of instructor.
Description: Overview of intellectual property law and management of intellectual property. Exploration of ways to manage intellectual property from conception through production and licensing. Types of intellectual property and associated legal issues and management processes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5471 Introduction to System Safety
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: System safety as a discipline in research, development and acquisition of systems, sub-systems and components. The history and methodologies of mishap prevention including the development of system safety management and engineering processes.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5481 Sustainable Enterprise Strategies
Prerequisites: Admission to the MSETM program or consent of instructor.
Description: The principles of sustainability in the context of industrial enterprises. The implications of sustainability in design of products, industrial systems and infrastructure. The importance of life cycle cost analysis as a key engineering economy tool.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5491 ISO 9000
Prerequisites: Admission to the MSETM program or departmental permission.
Description: A detailed look at the requirements of ISO 9001:2008 from a systems perspective. The relationship between ISO 9001, ISO 9000, ISO 9004 and industry-related standards. Implementation and improvement of quality management systems (both high quality and typical methods).
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5511 Capstone Preparation
Prerequisites: Admission to the MSETM program and at least 17 hours earned toward MSETM degree or departmental permission.
Description: Introduction to the requirements for the ETM Capstone Project, including problem statements, strategic implications, management systems, and problem metrics. Emphasis is placed on persuasive technical communication.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5521 Quick Response Manufacturing
Prerequisites: Admission to the MSETM program or departmental permission.
Description: Introduction to QRM, an enterprise-wide strategy for lead-time reduction. Discussion of the four core concepts of QRM - realizing the power of time, rethinking organizational structure, understanding and exploiting systems dynamics, and implementing a unified strategy enterprise-wide. Definitions of manufacturing critical-path time (MCT) map. Focused target market segment (FTMS), and material control strategy POLCA. Case studies and MPX software.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5531 Contract Law in Engineering and Technology
Prerequisites: Graduate standing.
Description: This course will provide engineers and architects with a background in common law as it applies to contracts. Topics will include concepts such as offer, acceptance, consideration and breach; contracts under the Uniform Commercial Code; express and implied warranties; and employment contracts.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

ETM 5943 Lean Sigma Implementation
Prerequisites: IEM 5113, admission to the MSETM program or departmental permission.
Description: Introduction to the implementation skills necessary to successfully apply lean manufacturing and six sigma concepts and manage continuous improvement within a small to mid-sized firm. Successfully combining leadership, organizational dynamics, and skills in meeting customer expectations. Planning, applying, and monitoring these learned skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

Fire, Construction and Emergency Management

The School of Fire, Construction and Emergency Management (FCEM) comprises multiple undergraduate and graduate degree programs with a wide range of focus areas. Three programs exist within FCEM: Fire Protection and Safety Engineering Technology, Construction Engineering Technology, and Fire and Emergency Management Administration. Two ABET-accredited baccalaureate degrees, three undergraduate minors, two master's degrees, and one doctor of philosophy degree are available academic options.

Undergraduate

The Fire Protection and Safety Engineering Technology (FPSET) program has a long and rich history as the first ABET-accredited undergraduate FPSET program and remains one of only a few in the nation. A variety of industries heavily recruit FPSET graduates, looking to reduce fire and safety losses. Students have a wide range of career choices and flexibility due to the diversity of education the program provides.

The Construction Engineering Technology (CET) program produces graduates with either a building or a heavy/highway focus. Students participate in two internships, providing them with the opportunity to connect classroom knowledge with real-world field experiences. The construction industry highly seeks CET graduates, and the job placement rate is 100%.

The FPSET and CET undergraduate programs are accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

Undergraduate minor degree choices are available in four areas of study. These minors are open to students from all majors in the university – the Construction Minor, the Emergency Management Minor, and the Safety and Exposure Sciences Minor.

Transfer Students

The School of Fire, Construction and Emergency Management offers students from two-year degree institutions excellent opportunities to earn a bachelor's degree in approximately four semesters at OSU. Transfer maps are available for students attending community colleges and engineering schools.

Graduate

Graduate degree options are available, including a Ph.D. and an M.S. in Fire and Emergency Management Administration, as well as an M.S.E.T. with an option in Fire Safety and Explosion Protection.

The M.S. in Fire and Emergency Management Administration is a specialized degree designed to provide an educational foundation for those who are currently serving or aspire to serve as managers or administrators in the fire service, emergency management, emergency medical services, law enforcement, or homeland security in the public, private, or nonprofit sectors. The Ph.D. in Fire and Emergency Management Administration focuses on producing proficient and active research scholars. It emphasizes preparing talented individuals for faculty careers at major research-oriented institutions but also welcomes applicants whose career interests may lean toward non-academic settings or academic institutions that prioritize teaching.

Individuals pursuing a career in engineering or the science underlying fire protection and safety have the option to earn an M.S. in Engineering Technology with an emphasis on Fire Safety and Explosion Protection. The courses cater to the needs of both on-campus students and working professionals, with all classes offered in both in-person and online formats.

Fire Protection and Safety Engineering Technology

The Fire Protection and Safety Engineering Technology (FPSET) curriculum prepares students to assess and mitigate risks related to fire, industrial incidents, toxic materials, and hazardous materials management, including setting design criteria for life safety, fire resistance, and fire protection systems; redesigning machinery or procedures to prevent industrial incidents; monitoring air quality and noise to manage toxic exposure; and evaluating storage, transportation, and spill response for hazardous materials. A key focus is on reducing risk and ensuring compliance with safety regulations in commercial and industrial settings.

The FPSET program began at Oklahoma State University in 1937, making it the oldest fire-related program in North America. The demand from business and industry for loss control specialists has led to the program's evolution, with an emphasis on risk management for fire protection, safety, and occupational health. The FPSET program prepares graduates for careers in three primary areas of loss control: loss due to fire, loss resulting from physical accidents, and loss caused by environmental exposure.

The curriculum immediately introduces students to fire protection and safety studies, allowing them to measure their interests in a fire protection and safety career early in their academic career. The curriculum is rigorous in mathematics and the physical sciences, requiring two semesters of calculus, one semester of chemistry, and two semesters of physics. Computer usage is an essential component of most fire protection and safety courses. High school students interested in pursuing a degree in FPSET should design their high school programs to prepare them for college-level mathematics and science classes.

Program Educational Objectives

A few years after graduation, OSU Fire Protection and Safety Engineering Technology graduates will be:

1. Earning and pursuing personal, technical, and professional advancement through certifications, licensure, and employment.
2. Continuing the pursuit of lifelong learning through membership and participation in professional organizations.
3. Developing business expertise within their selected employment organization.
4. Successfully applying mathematical, analytical, and technical skills to solve complex problems in the selected field.
5. Meeting the highest standards of ethical practice in their profession.

Fire Protection and Safety Engineering Technology graduates possess these student outcomes upon graduation:

(1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;

(2) an ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in broadly defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes;

(5) an ability to function effectively as a member as well as a leader on technical teams; and

(6) an ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.

Consistently recruited by major businesses and industries in the United States, graduates enjoy excellent placement, high salary offers, and fast advancement into managerial positions due to the uniqueness and high technical quality of the OSU Fire Protection and Safety Engineering Technology program.

The Fire Protection and Safety Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET,http://www.abet.org.

Construction Engineering Technology

The construction industry is the largest industry in the world. Leadership in this field requires a broad knowledge of labor, materials, and equipment, as well as capital and construction procedures. The interdisciplinary approach of the Construction Engineering Technology program offers students specialized coursework in all phases of construction, designed to prepare them for responsible positions in industry.

The primary goal of the Construction Engineering#Technology (CET) program#is to enhance the quality of the instructional program through effective management of the curriculum, teaching assignments, and fiscal and physical resources. This goal includes providing instructional facilities, equipment, and support services for faculty and students, which maintain an excellent learning environment.

Program Educational Objectives

OSU Construction Engineering#Technology graduates a few years after graduation will:

1. Solve problems typically found in the construction industry in construction engineering design, estimating, planning, scheduling, and project management using mathematical, analytical, and scientific skills of engineering technology.
2. Successfully lead and work in teams and communicate effectively in written, oral, and graphical forms.
3. Continue lifelong career and professional growth by actively interacting with local industries and participating in appropriate professional societies.
4. Continue lifelong personal growth in sensitivity to ethical responsibilities, global environments, and associated social issues.

Construction Engineering#Technology graduates can expect to obtain these student outcomes upon graduation:

(1) an ability to apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

(2) an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

(5) an ability to function effectively as a member as well as a leader on technical teams.

Faculty with strong academic backgrounds and industry experience are recruited nationwide and supported through professional development and regular industry engagement. They are encouraged to participate in research, extension, and continuing education—especially within the regional construction community.

Program direction is shaped through collaboration with construction professionals and an active Advisory Board, ensuring alignment with industry needs and maintaining excellence.

The Construction Engineering#Technology program is accredited by the Engineering Technology Accreditation Commission of ABET,http://www.abet.org.

The modern constructor must possess a great deal of technical knowledge to stay up to date with rapidly changing equipment, materials, and methods of construction. Specialized courses in estimating, surveying, structures, construction planning and scheduling, construction law and insurance, field and office management, and construction procedures provide students with the background necessary for today's construction industry. These specialized courses, combined with a blend of the basic sciences, business, and general studies, produce a well-balanced curriculum for students in construction engineering technology. Special attention is given to computer applications in construction estimating, and the development of graphic, written, and oral communication skills are emphasized throughout the curriculum.

Students with an interest in building structures may select courses in the "building" option of the construction engineering#technology curriculum, which provides them with knowledge of working drawings, mechanical and electrical equipment of buildings, and other coursework for a career in building construction.

Students with an interest in civil engineering structures may select courses in the "heavy/highway" option of the construction engineering#technology curriculum, which provides them with knowledge of highways, soils, foundations, and other coursework for a career in the heavy and industrial construction industry.

The program recruits high-potential students and supports their success through quality instruction, advisement, and continuous outcome assessment, as measured by graduates and employers.

Graduates consistently transition into key industry roles as executives, project managers, estimators, sales professionals, and construction managers.

Fire and Emergency Management Program

Oklahoma State University's graduate program in Fire and Emergency Management Administration Program is one of the oldest programs in the nation. Students receive superior academic experience in preparing leaders in the fire services, emergency management, emergency medical services, law enforcement, homeland security and related professions, as well as educators and researchers in these fields.

Students can complete degree requirements either online as distance students or as a resident on campus. Online Graduate courses typically meet in real time. Distance students join on-campus students in lecture, discussion, and group work, utilizing state of the art classrooms designed for distance education. FEMP students are encouraged to complete at least one course on campus in Stillwater, Oklahoma. This can be accomplished during one-week courses in the summer or select traditional semesters when available.

The program began in 1996 as a Master of Arts specialization in Fire and Emergency Management within political science, transitioning in 1999 to the Master of Science in Fire and Emergency Management Administration. The curriculum covers public policy, strategic administration, disaster human dimensions, leadership, and terrorism.

In 2009, the PhD in Fire and Emergency Management Administration was launched to prepare skilled research scholars, especially for faculty roles at research institutions—though those pursuing careers in teaching-focused or non-academic settings are also supported. All PhD students receive rigorous preparation to stay current in the field and provide relevant, evidence-based knowledge.

On July 1, 2018, the program joined the College of Engineering, Architecture and Technology, enhancing its collaboration with OSU's internationally recognized fire-related programs.

A major component of Oklahoma State University's land grant mission is service to the community, state, and nation by preparing professionals for jobs in critical service sectors. The mission of the Fire and Emergency Management Administration Program is to prepare professionals for management positions in the critical service professions of fire and rescue, emergency management, emergency medical services, law enforcement, homeland security and related fields in both the public and private sectors. These professions are concerned with the mitigation of, preparedness for, response to, and recovery from the adverse effects of acute exposures to natural, technological, and social hazards.
The program specializes in strategic policy, public management, and organizational behavior, human dimensions of disaster, leadership, and counterterrorism. It also facilitates professional networking among its students and with leaders in the field. The curriculum is designed to provide students with theoretical and substantive knowledge about management structures and functions, analytical skills that enable the practical application of theories, research skills that enable critical analysis of real-world problems, and written communication skills necessary for effective management.

The Learning Outcomes for the Fire and Emergency Management programs are that:

1. Graduates can demonstrate mastery of substantive theories in and knowledge of fire and emergency management administration and of its application to practical problems and issues in the field.

2. Graduates can conduct research and critically analyze problems in the fire and emergency management field.

3. Graduates can demonstrate effective written communication skills.

Courses

CET 1213 Introduction to Construction
Description: Overview of the entire construction industry with emphasis on construction materials, methods and systems. Both building and heavy highway construction drawings and their interpretation. Previously offered as CMT 1213 and CMT 1214.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2003 Construction and Culture
Description: Analyzes the cultural context of construction internationally, emphasizing its centrality in the evolution and expansion of built environments as expressions of ethical and historical value systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2203 Construction Drawings (for Non-Majors)
Description: Principles of graphic communication are applied to reading and drawing construction plans, with emphasis to fire protection systems. Does not meet CMT degree requirements. (Online course for non-CMT majors). Previously offered as CMT 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2253 Printreading & BIM
Prerequisites: Grade of "C" or better in MATH 1513 or ALEKS score greater or equal to 60 or permission of instructor.
Description: Principles of 2D and 3D graphic communication are applied to reading and drawing construction plans. Techniques for measuring items of construction work from plans and specifications are also covered. Previously offered as CMT 2253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2263 Estimating I
Prerequisites: Grade of “C” or better in CET 1213 and CET 2253, and ALEKS>56 or MATH 1513 with a grade of "C" or higher, or MATH 1613 with a "C" or higher, or MATH 1813 with a "C" or higher or MATH 2144 with a "C" or higher or permission of instructor.
Description: Quantity take-off with emphasis on excavation, formwork and concrete, masonry, rough carpentry and miscellaneous specialty items. Previously offered as CMT 2263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2333 Construction Practices and Procedures
Prerequisites: "C" or better in CET 1213.
Description: Light frame and commercial construction. Foundation layout, framing and finish work, site investigations, excavation, precast concrete, tilt up, structural steel and metal building construction and project management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 2343 Concrete Technology
Prerequisites: Grade of “C” or better in (CET 1213 and CMT 1213) and (CMT 2353 or CET 2253) or permission of department.
Description: Fundamentals and practical application of concrete and concrete making materials including admixtures. Proportioning concrete mixtures. Batching, mixing, conveying, placing, finishing, and curing concrete. Hot and cold weather concreting, jointing, volume change and crack control. Previously offered as CMT 2343 and CMT 2351 and CMT 2352.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3163 Field Engineering Applications
Prerequisites: Grade of "C" or better in CET 2263 and ENSC 2113, or permission of department.
Description: Construction sequencing and methods and basic timber structural design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3213 Soft Skills for Effective Interpersonal Communication (S)
Description: A study of personal one-on-one communication skills to improve effective intrapersonal communication. The course also relates intrapersonal skills to successful teamwork and teambuilding and becoming and presenting the best version of yourself.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage
General Education and other Course Attributes: Society & Human Behavior

CET 3273 Scheduling Construction Projects
Prerequisites: Grade of "C" or better in CMT 2263, or CET 2263 or permission of department.
Description: Scheduling basics, including bar charts and critical-path methods; manual and computer techniques using current software; emphasis on using schedules for construction project management. Previously offered as CMT 3273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3322 Construction Practicum I
Prerequisites: Grade of "C" or better in (CMT 1213 and CET 1213) and (CMT 2253 or CET 2253), or permission of department.
Description: Supervised field experience in construction; 400 hours minimum documented time required. Previously offered as CMT 3331 and CMT 3322.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3323 Theory of Built Structures
Prerequisites: A grade of “C” or better in (MATH 2123 or MATH 2144) and (GENT 2323 or ENSC 2113) or permission of the department.
Description: The study of equilibrium of structural systems and stresses and strains that occur in structural members of the built environment. Previously offered as CMT 3323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3332 Construction Practicum II
Prerequisites: Grade of “C” or better in (CMT 2263 or CET 2263), (CMT 3322 or CET 3322) and CIVE 3614 or permission of department.
Description: Supervised temporary, full-time employment in construction, emphasizing field and office engineering and a variety of project management functions; 400 hours minimum documented time required. Previously offered as CMT 3332 and CMT 3333.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3364 Structures I
Prerequisites: Grade of "C" or better in (CMT 2343, CET 2343, or CMT 2351) and (CMT 3323, CET 3323 or GENT 3323 or ENSC 2143) and (MATH 2133 or MATH 2153) and (PHYS 1214 or PHYS 2114) and (CMT 3322 or CET 3322) and (CMT 3273 or CET 3273).
Description: Methods of structural analysis applicable to construction; design of timber structures and forms for concrete structures. Previously offered as CMT 3363 and CMT 3364.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3432 Principles of Site Development
Prerequisites: Grade of "C" or better in CET 2343 or ENSC 2113 or permission of department.
Description: Site layout, vertical and horizontal control, surveying instrument adjustments, site investigations, excavations, site drainage and geotechnical considerations. Previously offered as CET 3433, CMT 3433 and CMT 2333.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3443 Environmental Building Systems (Non-Majors)
Prerequisites: Grade of "C" or better in ENGR 1322 or CMT 2253 or ARCH 3263 and grade of "C" or better in (PHYS 1114 or PHYS 2014), or permission of department.
Description: An introductory level knowledge of plumbing, heating, air-conditioning, electrical and lighting systems as applied to construction and construction-related projects. May not be used for degree credit with CET 3463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 3463 Environmental Building Systems
Prerequisites: Grade of "C" or better in CET 2253 or CMT 2253 and (PHYS 1214 or PHYS 2114) or permission of department.
Description: Plumbing, heating, air-conditioning, electrical and lighting systems as applied to residences and commercial buildings. Previously offered as CMT 3463.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 3554 Structures II
Prerequisites: Grade of "C" or better in (CET 3364 or CMT 3364).
Description: Analysis and design of elements in steel and reinforced concrete structures; review of shop drawings for both types of construction. Previously offered as CMT 3553 and CMT 3554.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 4050 Advanced Construction Management Problems
Description: Special problems in construction management. Previously offered as as CMT 4050. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

CET 4103 Integrated Project Delivery Methods
Description: An introduction to contract delivery methods for construction projects from the perspective of Designers, Owners, and Builders. Best value selection is used as a tool to illustrate all perspectives for project management. Professional, ethical, and social responsibilities are presented through the perspectives of sustainability and lean bespoke manufacturing methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4133 CAD and BIM for Construction Managers
Prerequisites: Grade of "C" or better in (CMT 1213 or CET 1213) and (CMT 2253 or CET 2253).
Description: Interpretation and production of construction drawings using computer aided drafting. Theory and use of Building Information Modeling software builds upon computer aided drafting skills. Previously offered as CMT 3633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4263 Estimating II
Prerequisites: Grade of “C” or better in EET 1003, (CMT 2263 or CET 2263) and concurrent enrollment or grade of "C" or better in GENT 2323 or ENSC 2113; or permission of department.
Description: Extensive use of actual contract documents for quantity take-off, pricing and assembling the bid for several projects. Use of computers in estimating. Previously offered as CMT 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4273 Technology in Construction
Prerequisites: Grade of "C" or better in (CMT 3273 or CET 3273) and (CMT 4263 or CET 4263).
Description: Applications of various technologies including software for construction. Previously offered as CMT 4273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4283 Business Practices for Construction
Prerequisites: Grade of "C" or better in ACCT 2003, ACCT 2103, (CMT 3273 or CET 3273) and (CMT 4563 or CET 4563) or permission of department.
Description: Principles of management applied to construction contracting; organizing office and field staff; bonding, liens, financial management practices; introduction to the construction manager concept; schedule of values; construction billings. Previously offered as CMT 4283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4293 Construction Manager Concepts
Prerequisites: Grade of "C" or better in CET 3163 and CET 4283 or permission of department.
Description: Capstone course utilizing skills and knowledge of estimating, scheduling, bidding, construction management, CAD, TQM, partnering and safety; includes topics in leadership, motivation and the use of current project management software. Previously offered as CMT 4293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4333 Equipment Management for Constructors
Prerequisites: Grade of "C" or higher in (CMT 2263 or CET 2263), (CMT 2343 or CET 2343) and (ACCT 2003 or ACCT 2103) or permission of department.
Description: Selection and use of equipment, estimating equipment costs, estimating equipment production rates for all types of equipment used in building construction and heavy/highway construction. Previously offered as CMT 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4443 Construction Safety and Loss Control
Prerequisites: Grade of "C" or better in (CMT 2253 or CET 2253) and (CMT 4263 or CET 4263) or permission of department.
Description: A detailed study of OSHA Part 1926 - Construction Safety and Health Compliance and related safety topics including topics related to the OSHA 30-hour training program; concepts and methods of loss control. Previously offered as CMT 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4533 Heavy Civil Construction and Estimating
Prerequisites: Grade of "C" or better in (CMT 2263 or CET 2263) and (CMT 2343 or CET 2343 or CMT 2351) or permission of department.
Description: Theory and application of contractor estimating and bidding procedures used in heavy and highway construction projects. Previously offered as CMT 4533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4553 Structural Steel Design & Connections
Prerequisites: Grade of "C" or better in CET 3163 and ENSC 2143 or permission of department.
Description: Analysis and design of steel beams and columns, bolted and welded connections, and rigging applications. May not be used for degree credit with CET 3554.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

CET 4563 Construction Law and Insurance
Prerequisites: A grade of “C” or better in (CMT 2263 or CET 2263) and SPCH 2713 and acceptance to the CMT Upper Division or permission of the department.
Description: Legal and insurance problems as they pertain to the construction industry. Previously offered as CMT 4563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

CET 4663 Concrete Design & Formwork
Prerequisites: Grade of "C" or better in CET 3163 and ENSC 2143 or permission of department.
Description: Analysis and design of cast in place concrete with concrete formwork applications. May not be used for degree credit with CET 3364 and CET 3554.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 1103 Applied Techniques in Fire Suppression
Description: Provides requisite knowledge to achieve basic certifications in fire suppression and emergency operations for municipal and industrial fire protection.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 1203 Applied Techniques in Emergency Operations
Description: Provides requisite knowledge to achieve advanced certifications in fire suppression and emergency operations for municipal and industrial fire protection.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 1213 Fire Safety Hazards Recognition
Description: "The Fire Problem" Physical, chemical and electrical hazards and their relationship to loss of property and/or life. Safe storage, transportation and handling practices to eliminate or control the risk of fire in the home, business and industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 1373 Fire Suppression and Detection Systems
Description: The design, installation, maintenance and utilization of portable fire-extinguishing appliances and pre-engineered systems. Operational capabilities and utilization requirements of fire detection and signaling systems. Fire detection and suppression applied in practical laboratory problems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2023 Industrial and Occupational Safety
Prerequisites: A grade of "C" or better in FPST 1213 and a grade of "C" or better in either MATH 1613 or MATH 1715 or MATH 1813 or MATH 2123 or MATH 2144 or an ALEKS score of 65.
Description: Occupational facilities, equipment and operations and their inherent hazards. Directed toward worker, machine and environmental control.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2050 Studies in Loss Control
Prerequisites: Consent of instructor and adviser.
Description: Problems in applied fire protection technology, occupational safety, industrial hygiene or hazardous materials management of particular interest to the loss control specialist. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 2153 Fire Protection Management
Description: Applied human relations, technical knowledge and skills for achieving optimum effectiveness from a fire protection organization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 2243 Design and Analysis of Sprinkler Systems
Prerequisites: Grade of "C" or better in (FPST 2483 and (ENGR 1322 or CET 2253)) or (MAE 3333 and (ENGR 1332 or ENGR 1322)).
Description: Detailed current standards for selection, design, installation, operation and maintenance of automatic fire suppression systems. Laboratory problems on applicable technological principles.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2343 Elements of Industrial Hygiene
Prerequisites: Grade of "C" or better in STAT 2013, CHEM 1515 or CHEM 1225 or CHEM 1414.
Description: Toxic or irritating substances, physical, biological, ergonomic and other occupational stress factors causing employee illness or discomfort. Environmental pollution sources and controls. Previously offered as FPST 2344.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2483 Fluid Mechanics for Fire Protection
Prerequisites: Prior (grade of "C" or better) or concurrent enrollment in FPST 1373. A grade of "C" or better in MATH 1613 or MATH 1715 or MATH 1813 or MATH 2123 or MATH 2144 or an ALEKS score of 65.
Description: Fluid flow through hoses, pipes, pumps and fire protection appliances. Water supply and distribution analysis using hydraulic calculations. Testing techniques to detect anomalies in design or performance capabilities.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 2650 Technical Problems and Projects
Description: Special problems or projects assigned by advisers with the approval of the department head. A comprehensive written report or equivalent creative effort. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 3013 Safety Management (S)
Prerequisites: A grade of "D" or better in ENGL 1113 or ENGL 1123 or ENGL 1313. Must be enrolled in one of the following classes: Sophomore (SO), Junior (JR), or Senior (SR).
Description: Understanding and implementing techniques for a safer work environment. Recognition, evaluation and control of occupational health and safety hazards. Accident prevention, accident analysis, training techniques, worker's compensation insurance, guarding and personal protective equipment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage
General Education and other Course Attributes: Society & Human Behavior

FPST 3113 Advanced Special Hazard Suppression and Detection
Prerequisites: FPST 2483 or ENSC 3233.
Description: Design and analysis of special hazard suppression and detection systems using code requirements. Emphasis is also placed on the ability to select the appropriate system for a given hazard. May not be used for degree credit with FSEP 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3143 Life Safety Analysis
Prerequisites: A grade of "C" or better in FPST 1373 or CMT 3463 or ARCH 2263.
Description: Life safety concepts related to building codes including means of egress design criteria and components, exits, component details, occupancy types, occupancy load, emergency lighting, marking of means of egress, evacuation movement, human performance capabilities, human response to fire cues, occupant pre-evacuation, and toxicology.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 3213 Human Factors in Accident Prevention
Prerequisites: Grade of "C" or better in (STAT 2013, STAT 4013, or STAT 4033) and (GENT 2323 or ENSC 2113).
Description: Human factors and workplace ergonomics as it relates to the prevention of accidents and workplace injuries. Fundamentals and techniques of task analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3373 Fire Dynamics
Prerequisites: A grade of "C" or better in (CHEM 1414 or CHEM 1215 or CHEM 1515), (MATH 2133 or MATH 2153), (FPST 2483 or MAE 3333).
Description: Fundamentals of thermochemistry, vent flows, heat transfer, ignition of liquids and solids, compartment fire phenomena, and introduction of computer fire modeling. Previously offered as FPST 4373.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 3383 Building Electrical Systems
Prerequisites: A grade of C or better in FPST 1373 and a grade of C or better in PHYS 2014.
Description: Detail current standards for design, selection and installation of electrical distribution and utilization equipment. Emphasis on personnel safety and fire prevention using current codes and standards. May not be used for degree credit with FSEP 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3611 Human Behavior in Fire
Description: Concepts related to human behavior in terms of both the decision-making process of individuals and the impact of fire on occupants' ability to respond. May not be used for FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3621 Wildland Urban Interface Fire Impact on Infrastructure
Description: Concepts related to wildland urban interface fires in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3631 Fire Impact on Tall Building Infrastructure
Description: Concepts related to tall building fires in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FSEP 5173.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3713 Hydraulic Design of Automatics Sprinkler Systems
Prerequisites: FPST 1373, FPST 2483, MATH 1513.
Description: Hydraulic calculation technique for the design and analysis of automatic sprinkler fire extinguishing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3723 Industrial Fire Pump Installations
Prerequisites: FPST 2483, MATH 1513.
Description: Applications, design and analysis of industrial fire pump installations. Graphical analysis of fire pump contributions to existing fire protection water supply systems emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 3733 Sprinkler System Design for High Piled and Rack Storage
Prerequisites: FPST 2243, MATH 1513.
Description: Specific design techniques for sprinkler system protection of commodities stored in solid piles or racks over 12 feet in height.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4050 Special Problems in Loss Control
Prerequisites: Consent of department head.
Description: Special technical problems in fire protection and safety. Offered for variable credit, 1-4 credit hours, maximum of 6 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FPST 4143 Industrial Ventilation and Smoke Control
Prerequisites: A grade of "C" or better in (FPST 2483 or MAE 3333) and FPST 3373 and (ENSC 2213 or MET 3433 or MET 3453).
Description: Principles of dilution and comfort ventilation; contaminant control; ventilation system testing and guidelines. Design and analysis of smoke management systems in buildings. Performance characteristics of smoke control systems. Previously offered as FPST 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4153 Issues in Local Government and Fire Services
Prerequisites: FPST 2153, MGMT 3013.
Description: Issues relating to the proper operation of a fire department and the fire department's role within the structure of local government.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4213 Advanced Building Design and Analysis
Prerequisites: Grade of "C" or better in FPST 2243 or CMT 3463 or ARCH 2263.
Description: Fire protection and life safety concepts and applications in the built environment related to building and fire codes including building height and area, structural fire protection, occupancy classifications, passive fire protection systems, means of egress, active fire protection systems, fire detection systems, and fire department access. May not be used for degree credit with FSEP 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4233 Advance Exposure Assessment
Prerequisites: Grade of "C" or better in FPST 2344.
Description: Evaluation of CBRNE exposure risks in industry and emergency response including statistical/computational techniques, regulatory obligations, and the use of instrumentation. Same course as FPST 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4333 System and Process Safety Analysis
Prerequisites: Grade of “C” or better in FPST 2023, STAT 2013, and MATH 2123 or MATH 2144.
Description: Fire and safety techniques to anticipate, recognize and control hazards. Fault Tree, HazOp, FMEA and other process safety techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 4383 Fire and Evacuation Modeling
Prerequisites: A grade of “C” or better in CHEM 1515 or CHEM 1225 or CHEM 1414 and FPST 2483 and MATH 2133 or MATH 2153 and STAT 2013 and GENT 3433 or MET 3433 or ENSC 2213 or GENT 4433 or MET 4433.
Description: Fundamentals of fire dynamics and occupant egress and their numerical approaches for computer models. Practical knowledge of how to use fire and evacuation modeling tools: CFAST, FDS, Pyrosim, and Pathfinder, and how to analyze modeling results. May not be used for degree credit with FSEP 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4403 Hazardous Materials Management
Prerequisites: Grade of "C" or better in FPST 2343, and (CHEM 1225 or CHEM 1414 or CHEM 1515).
Description: An integrated approach to hazardous materials management with emphasis on comprehensive environmental, health, safety, and fire protection program compliance relating to the transportation, storage, use and disposal of hazardous materials and wastes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4683 Risk Control Engineering
Prerequisites: A grade of "C" or better in FPST 2023, FPST 2343, FPST 2243, FPST 3373, FPST 3013, and ENGL 3323, or Department Permission, Junior Standing.
Description: Analysis of specific processes, equipment, facilities and work practices for detecting and controlling potential hazards, evaluating risk and developing risk control methodologies.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Fire Constr Emergency Manage

FPST 4982 Fire Protection and Safety Projects I
Prerequisites: A grade of “C” or better in ENGL 1113 or ENGL 1123 or ENGL 1313. A grade of "C" or better or concurrent enrollment in ENGL 3323. A grade of "C" or better or concurrent enrollment in FPST 3013.
Description: Two-semester project with team format. Team members work with sponsors and faculty who serve as mentors in fields related to their topics. Students complete topic selection, progress reports, final reports, and poster presentations.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4992 Fire Protection & Safety Projects II
Prerequisites: A grade of “C” or better in ENGL 3323 and FPST 4982.
Description: Two-semester project with team format. Second of two-semester sequence of senior project courses.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FPST 4994 Fire Protection and Safety Projects
Prerequisites: A grade of "C" or better in ENGL 1113 or ENGL 1123 or ENGL 1313. A grade of "C" or better or concurrent enrollment in ENGL 3323. A grade of "C" or better or concurrent enrollment in FPST 3013 and FPST 3373.
Description: Students work in small teams on a semester-long design project sponsored by a company, agency, or individual. Team members work with mentors from sponsors and with faculty members in fields related to their topics. Presentations on safety, patent law, product liability, report writing, oral presentations, scheduling and ideation. Oral presentations, progress reports, and a professional log book documenting personal activity and contributions. Previously offered as FPST 4993.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5000 Master's Thesis
Prerequisites: Consent of instructor.
Description: Methods used in research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours. Same course as MERO 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

FSEP 5013 Research Design & Methodology
Prerequisites: Consent of instructor.
Description: Overview of research design methods and skills necessary for conducting research projects, including: conceptualization and operationalization, literature review, deductive and inductive theorizing, hypothesis testing, quantitative and qualitative data collection and analysis, maintaining research records, experiment design, data validation, result presentation, and research ethics. Same course as FEMP 5013 and MERO 5013. Previously offered as GENT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5023 Project Management
Prerequisites: Consent of instructor.
Description: Methods and skills needed to successfully improve your employability and advancement in today's dynamic workforce. Understanding of the responsibilities of project leader and become better prepared to apply these knowledge/skills to the project environment. Previously offered as GENT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5033 Risk Analysis
Prerequisites: Consent of instructor.
Description: Identification of various risks and analytical treatment of those risks in various work settings, such as energy, mechanical and construction. Previously offered as GENT 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5043 Principles and Impacts of Explosions
Description: Concepts related to understanding explosion phenomena, analyze and calculate explosion pressures, conceptual design of ventilation, suppression or isolation systems. Approaches of explosion protection and evaluation of structural damage and injury potential of blast waves.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5060 Emerging Topics in Engineering Technology
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics normally not included in existing MSET program. Repeat credit may be earned with different course subtitles assigned. Same course as MERO 5060. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5113 Introduction to Fire Dynamics
Description: Fundamentals principles of combustion and fire. The thermochemistry and physical phenomena of fire.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5123 Advanced Special Hazard Suppression and Detection
Description: Design and analysis of special hazard suppression and detection systems using code requirements. Emphasis is also placed on the ability to select the appropriate system for a given hazard. May not be used with FPST 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5133 Principles of Industrial and Process Safety
Description: Fundamentals of industrial safety in general, chemical release, dispersion, toxicity, fire, and explosion. Safety design for industrial safety and mitigating consequences of catastrophic fire and explosion. Same course as MERO 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5143 Performance Based Design for Life Safety in Fire and Other Hazards
Description: Identification and application of performance based design practices with an emphasis on determining the response and requirements of occupants. Building construction standards and codes to assure maximum life and property safety from fires, explosions and natural disasters. Egress design specifications, human factors and fire protection requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5153 Advanced Exposure Assessment
Description: Identification of critical infrastructure and the societal risk caused by its vulnerability. Methods of analyzing the hazards and threats facing critical infrastructure components and the methods of minimizing those risks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5163 Building Electrical Systems
Description: Detail current standards for design, selection and installation of electrical distribution and utilization equipment. Emphasis on personnel safety and fire prevention using current codes and standards. May not be used with FPST 3383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5173 Explosion and Fire Impact on Infrastructure
Description: Concepts related to explosions, Wildland Urban Interface (WUI) fires, and tall buildings in terms of both the identification of hazards and solutions for protecting the building infrastructure. May not be used with FPST 3611, FPST 3621, or FPST 3631.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5213 Advanced Building Design and Analysis
Description: Fire protection and life safety concepts and applications in the built environment related to building and fire codes including building height and area, structural fire protection, occupancy classifications, passive fire protection systems, means of egress, active fire protection systems, fire detection systems, and fire department access. May not be used for degree credit with FSEP 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5383 Fire and Evacuation Modeling
Description: Fundamentals of fire dynamics and occupant egress and their numerical approaches for computer models. Practical knowledge of how to use fire and evacuation modeling tools: CFAST, FDS, Pyrosim, and Pathfinder, and how to analyze modeling results. May not be used for degree credit with FPST 4383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Fire Constr Emergency Manage

FSEP 5990 Directed Studies
Prerequisites: Consent of instructor.
Description: Individual report topics in fire safety and explosion protection involving processes, equipment, experiments, literature search, theory, computer use or combinations of these. Same course as MERO 5070. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Fire Constr Emergency Manage

Undergraduate Programs

- Construction Engineering Technology: Building, BSET (p. 2367)
- Construction Engineering Technology: Heavy, BSET (p. 2369)
- Fire Protection and Safety Engineering Technology, BSET (p. 2373)

Graduate Programs

Master of Science in Engineering Technology: Fire Protection and Explosion Protection

The Fire Protection and Safety Engineering Technology (FPST) program offers a graduate program leading to the Master of Science in Engineering Technology with an option in Fire Safety and Explosion Protection (FSEP). The program extends the FPST undergraduate program into graduate research, scholarship and creative activities. The FSEP program is designed to prepare students for professional practice that may include research or consulting components, with major emphasis in fields of interest such as fire protection engineering, explosion protection, fire and explosion hazards, and process safety. This is the nation's only master's degree program that is dedicated to both fire and explosion protection and related to safety. The program is geared toward recent graduates and professionals in a variety of industries, including insurance companies, the oil & gas industry, and fire protection engineering companies. The graduates of this program will have the deeper knowledge base that is needed to safeguard people in Oklahoma, the nation, and the world. The FSEP program is intended to be especially attractive to engineering and engineering technology graduates from any discipline, and many science majors. The program is interdisciplinary in nature and hence students with undergraduate degrees in fire and safety related fields or other STEM disciplines are invited to apply for admission. Students can complete degree requirements either online as distance students or as a resident on campus.

Admission Requirements

Admission to the Master of Science degree program requires a B.S. degree in engineering or engineering technology from an ABET-accredited (or equivalent) program or a B.S. from other related disciplines with foundations in mathematics. Admission is competitive based on undergraduate GPA and TOEFL (for international students), statement of interests, experience and recommendation letters. The GRE exam is optional but encouraged.

Degree Requirements

A candidate for the graduate degree must satisfy at least the minimum University requirements for that particular degree. The program consists of 30 hours of coursework with a thesis option or 33 hours of coursework with a non-thesis option. For both options, the courses taken must include FSEP 5013, 5023, and 5133. Both options require nine hours from the FSEP core courses that include 5033, 5113, 5143, and 5043.

Master of Science in Fire and Emergency Management Administration

Admission Requirements

Any student having a bachelor's degree with an overall 3.00 grade-point average (on a 4.00 scale) may be admitted as a student in full standing. Those with less than an overall 3.00 grade-point average are considered for admission on a probationary basis.

In addition to the general requirements outlined above, candidates for the Master of Science degree in fire and emergency management administration must meet one of the following requirements:

1. Have significant practical experience in a fire or emergency service organization.
2. Have a bachelor's degree or a minor in fire or emergency services related discipline such as fire protection technology, fire management administration, fire science, emergency management, disaster science, criminal justice, emergency services administration; or
3. Not meeting the criteria specified in 1 or 2 above, completed a minimum of 12 hours of undergraduate study in fire protection and/or emergency management, or provide significant proof that studies in another field led to knowledge and experience in fire or emergency services field, such as a final project related to fire or one of the emergency services listed above or an internship with a fire, emergency service, or law enforcement related organization in the public, private, or nonprofit sector.

A complete application for admission to the master's program must include:

1. A completed Graduate College application submitted with a non-refundable application fee.
2. A copy of undergraduate transcript(s).
3. Two letters of recommendation with at least one from an employer or faculty member familiar with the applicant's academic abilities.
4. TOEFL results for students for whom English is a second language. Students must have a score above 549 (paper exam) or 79 (internet-based test) to be considered for admission.
5. A brief letter indicating interests, career goals and other information the applicant considers relevant.

Degree Requirements

In addition to the general requirements of the Graduate College, requirements for the Master of Science degree in fire and emergency management administration are listed below.

1. A minimum of 33 credit hours in FEMP or closely related courses. Required courses include a 12-hour core requirement, a three-hour methods requirement, a three-hour administration course requirement, a six-hour emergency management or fire administration requirement, and six or nine hours of electives. Students must complete a three-hour practicum research project or a thesis with a minimum of six hours. Most courses in the FEMP MS program are conducted in the department's state-of-the-art virtual classroom, where both on-site and off-site students participate simultaneously in the same class sessions.
2. Satisfactory completion of a final assessment project (either a Thesis or a Practicum).
3. Minimum 3.00 grade-point average, with only one grade of "C" allowed.

PhD in Fire and Emergency Management Administration

Admission Requirements

OSU Graduate College admission requirements include the following: an OSU Graduate College Application, payment of the OSU Graduate Application fee and transcripts of all previous college level coursework

including transcripts that verify receipt of an undergraduate and graduate master's degree.

1. GPA: minimum cumulative GPA of 3.0.
2. GRE: Graduate Record Examination (GRE) scores are waived for students who have a 3.5 or above at the conclusion of their Master's degree program. GRE scores taken within the last 5 years are required for students who have less than a cumulative 3.5 GPA at the completion of their Master's degree program.
3. Professional experience in a fire or emergency services related field is preferred, but not required.
4. Academic experience in a fire or emergency services related field is preferred. If applicant has a degree outside of the fire or emergency services related field, they should spend time explaining how their academic background (i.e. degree, courses, research) has prepared them for the pursuit of a PhD in Fire and Emergency Management Administration.
5. English Language Proficiency: For international students, a minimum TOEFL score of 79 (Internet) and 550 (paper) is required.
6. A current resume
7. Three letters of recommendation: At least two letters must come from individuals who can speak directly to the applicant's abilities in the classroom and conducting research at the level required for doctoral work (i.e. faculty members).
8. An essay: This 1-2 page essay should address the applicant's previous professional and academic experience and how it has prepared them to seek a PhD in Fire and Emergency Management Administration. Candidates should also address their 5- and 10-year goals, discuss their research interests, and explain how the FEMP program and faculty can help them reach their goals and develop their research interests.
9. Copy of the applicant's thesis or other written example of applicant's research abilities.
10. Copies of any published materials authored by the candidate.

Degree Requirements

Degree candidates must have completed a master's degree. In addition, they must complete 60 hours of required common coursework that includes 15 hours in core courses, 12 hours of research tools, 18 hours of elective courses closely aligned with their academic and research interests, and 15 hours of dissertation research. Finally, candidates must take written and oral comprehensive exams and must successfully defend their dissertation before their dissertation committee. Most courses in the FEMP PhD program are conducted in the department's state-of-the-art virtual classroom, where both on-site and off-site students participate simultaneously in the same class sessions.

Certificates

- Construction, UCRT (p. 2371)

Minors

- Construction (CNST), Minor (p. 2366)
- Emergency Management (EM), Minor (p. 2372)
- Safety and Exposure Sciences (SAES), Minor (p. 2376)

Faculty

Heather Yates, EdD, CPC—Professor and School Head
Professor: Bryan Hoskins, PhD, PE (FSEP Graduate Program Coordinator)
Associate Professors: Virginia Charter, PhD, PE, FSFPE (FPSET Program Coordinator); Xiangyu "Dale" Li, PhD; Rachel Mosier, PhD, PE (CET Program Coordinator); Tony McAleavy, PhD (FEMP Program Coordinator); Haley Murphy, PhD; Haejun Park, PhD
Assistant Professors:#Chen Chen, PhD; Diana Rodriguez Coca, PhD; Marllon "Dan" Cook, PhD;Amy Lewis, PhD, CPC; Ruiqing "Ryan" Shen, PhD; Chelsie McWhorter, PhD; Soojin Yoon, PhD
Associate Professor of Professional Practice: Leslie Stockel, PhD, CSP
Assistant Professor of Professional Practice: Paul Christian, CPC
Associate Teaching Professor: Laura Emerson
Assistant Teaching Professor: Muhammad Jujuly
Affiliated Faculty: Ed Kirtley, PhD, Associate Dean of Engineering Extension and Professor of Professional Practice

Construction (CNST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 17

Code	Title	Hours
Required Courses		
CET 1213	Introduction to Construction	3
CET 2253	Printreading & BIM	3
CET 2263	Estimating I	3
CET 2333	Construction Practices and Procedures	3
CET 3273	Scheduling Construction Projects	3
Choose 1 of the following: [1]		2
CET 3322	Construction Practicum I [1]	
CET 3213	Soft Skills for Effective Interpersonal Communication (S)	
CET 3443	Environmental Building Systems (Non-Majors)	
CET 4133	CAD and BIM for Construction Managers	
CET 4263	Estimating II	
CET 4443	Construction Safety and Loss Control	
CET 4563	Construction Law and Insurance	
ARCH 4163	Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers	
Total Hours		**17**

1

If CET 3322 is not selected, the total hours required for the minor will be increased by one.

Minimum Grade Requirements

- 2.0 minimum grade requirement for minors to be awarded.
- "C" or better in CET 1213, CET 2253, CET 2333, CET 2263, and CET 3273.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Construction Engineering Technology: Building, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) (With a grade of "C" or better)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) (With a grade of "C" or better in PHYS 1114 or PHYS 2014)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) (With a grade of "C" or better in PHYS 1214 or PHYS 2114)	4
or PHYS 2114	University Physics II (LN)	
Select an additional 4 hours of Natural Science with N and L designations		4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Specialty		
CET 1213	Introduction to Construction (With a grade of "C" or better)	3
CET 2253	Printreading & BIM (With a grade of "C" or better)	3
CET 2263	Estimating I (With a grade of "C" or better)	3
CET 2333	Construction Practices and Procedures	3
CET 2343	Concrete Technology (With a grade of "C" or better)	3
Related Specialty		
ACCT 2103	Financial Accounting (With a grade of "C" or better in ACCT 2103 or ACCT 2003)	3
or ACCT 2003	Survey of Accounting	
ENSC 2113	Statics (With a grade of "C" or better)	3
Hours Subtotal		**22**
Major Requirements		
Communications		
SPCH 2713	Introduction to Speech Communication (S) (With a grade of "C" or better)	3
Specialty		
CET 3163	Field Engineering Applications (With a grade of "C" or better)	3
CET 3273	Scheduling Construction Projects (With a grade of "C" or better)	3
CET 3322	Construction Practicum I (With a grade of "C" or better)	2
CET 3332	Construction Practicum II (With a grade of "C" or better)	2
CET 3432	Principles of Site Development (With a grade of "C" or better)	2
CET 3463	Environmental Building Systems (With a grade of "C" or better)	3
CET 4263	Estimating II (With a grade of "C" or better)	3
CET 4273	Technology in Construction (With a grade of "C" or better)	3
CET 4283	Business Practices for Construction (With a grade of "C" or better)	3
CET 4293	Construction Manager Concepts (With a grade of "C" or better)	3
CET 4443	Construction Safety and Loss Control	3
CET 4553	Structural Steel Design & Connections (With a grade of "C" or better)	3
CET 4563	Construction Law and Insurance (With a grade of "C" or better)	3
CET 4663	Concrete Design & Formwork (With a grade of "C" or better)	3
Related Specialty		
CIVE 3614	Engineering Surveying (With a grade of "C" or better)	4
CIVE 4711	Basic Soils Testing Laboratory	1

ENSC 2143	Strength of Materials (With a grade of "C" or better in ENSC 2143, CET 3323, or GENT 3323)	3
or CET 3323	Theory of Built Structures	
or GENT 3323	Strength of Materials	
IEM 3513	Economic Decision Analysis	3
Hours Subtotal		**53**
Electives		
Select 6 hours of the following:		6
CET 3213	Soft Skills for Effective Interpersonal Communication (S) (With a grade of "C" or better)	
CIVE 3623	Engineering Materials Laboratory	
CET 4050	Advanced Construction Management Problems	
CET 4133	CAD and BIM for Construction Managers	
CET 4333	Equipment Management for Constructors	
CET 4533	Heavy Civil Construction and Estimating	
EEE 3023	Introduction to Entrepreneurial Thinking and Behavior	
EEE 4223	Entrepreneurial Marketing	
EEE 4533	Growing Small and Family Ventures	
FEMP 3103	Introduction to Emergency Management (S)	
FEMP 3733	Emergency Management: Preparedness and Response	
FEMP 3763	Emergency Management: Recovery and Mitigation	
FPST 3013	Safety Management (S)	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
Hours Subtotal		**6**
Total Hours		**124**

Graduation Requirements

1. A minimum technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A grade of "C" or better is required in each course that is a prerequisite to a required course that has an engineering or engineering technology prefix. A grade of 'C' or better is also required in CET 3213, CET 3463, CET 3433, CET 4273, CET 4293, CET 4333 and CET 4533.
3. Each student is required to sit for the American Institute of Constructors Level 1 – Associate Constructors Certification Exam or the Fundamentals of Engineering Exam.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Construction Engineering Technology: Heavy, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) (With a grade of "C" or better)	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) (With a grade of "C" or better in PHYS 1114 or PHYS 2014)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) (With a grade of "C" or better in PHYS 1214 or PHYS 2114)	4
or PHYS 2114	University Physics II (LN)	
Select an additional 4 hours of Natural Science with N and L designations		4
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Specialty		
CET 1213	Introduction to Construction (With a grade of "C" or better)	3
CET 2253	Printreading & BIM (With a grade of "C" or better)	3
CET 2263	Estimating I (With a grade of "C" or better)	3
CET 2333	Construction Practices and Procedures	3
CET 2343	Concrete Technology (With a grade of "C" or better)	3
Related Specialty		
ACCT 2103	Financial Accounting (With a grade of "C" or better in ACCT 2103 or ACCT 2003)	3
or ACCT 2003	Survey of Accounting	
ENSC 2113	Statics (With a grade of "C" or better)	3
Hours Subtotal		**22**
Major Requirements		
Communications		
SPCH 2713	Introduction to Speech Communication (S) (With a Grade of "C" or Better)	3
Specialty		
CET 3163	Field Engineering Applications (With a grade of "C" or better)	3
CET 3273	Scheduling Construction Projects (With a grade of "C" or better)	3
CET 3322	Construction Practicum I (With a grade of "C" or better)	2
CET 3332	Construction Practicum II (With a grade of "C" or better)	2
CET 3432	Principles of Site Development (With a grade of "C" or better)	2
CET 4263	Estimating II (With a grade of "C" or better)	3
CET 4283	Business Practices for Construction (With a grade of "C" or better)	3
CET 4293	Construction Manager Concepts (With a grade of "C" or better)	3
CET 4333	Equipment Management for Constructors (With a grade of "C" or better)	3
CET 4443	Construction Safety and Loss Control	3
CET 4533	Heavy Civil Construction and Estimating (With a grade of "C" or better)	3
CET 4553	Structural Steel Design & Connections (With a grade of "C" or better)	3
CET 4563	Construction Law and Insurance (With a grade of "C" or better)	3
CET 4663	Concrete Design & Formwork (With a grade of "C" or better)	3
Related Specialty		
CIVE 3614	Engineering Surveying (With a grade of "C" or better)	4
CIVE 4711	Basic Soils Testing Laboratory	1

ENSC 2143	Strength of Materials (With a grade of "C" or better in ENSC 2143, CET 3323, or GENT 3323)	3
or CET 3323	Theory of Built Structures	
or GENT 3323	Strength of Materials	
IEM 3513	Economic Decision Analysis	3
Hours Subtotal		**53**
Electives		
Select 6 hours of the following:		6
CET 3213	Soft Skills for Effective Interpersonal Communication (S)	
CET 3463	Environmental Building Systems (With a grade of "C" or better)	
CIVE 3623	Engineering Materials Laboratory	
CET 4050	Advanced Construction Management Problems	
CET 4133	CAD and BIM for Construction Managers	
CET 4273	Technology in Construction (With a grade of "C" or better)	
EEE 3023	Introduction to Entrepreneurial Thinking and Behavior	
EEE 4223	Entrepreneurial Marketing	
EEE 4533	Growing Small and Family Ventures	
FEMP 3103	Introduction to Emergency Management (S)	
FEMP 3733	Emergency Management: Preparedness and Response	
FEMP 3763	Emergency Management: Recovery and Mitigation	
FPST 3013	Safety Management (S)	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
Hours Subtotal		**6**
Total Hours		**124**

Graduation Requirements

1. A minimum technical GPA of 2.0 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A grade of "C" or better is required in each course that is a prerequisite to a required course that has an engineering or engineering technology prefix. A grade of "C" or better is also required in CET 3213, CET 3463, CET 3433, CET 4273, CET 4293, CET 4333 and CET 4533.
3. Each student is required to sit for the American Institute of Constructors Level 1 – Associate Constructors Certification Exam or Fundamentals of Engineering Exam.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Construction, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 17

Code	Title	Hours
Required Courses		
CET 1213	Introduction to Construction	3
CET 2253	Printreading & BIM	3
CET 2333	Construction Practices and Procedures	3
CET 2263	Estimating I	3
CET 3273	Scheduling Construction Projects	3
Choose one of the following: [1]		2
CET 3322	Construction Practicum I [1]	
CET 4050	Advanced Construction Management Problems [1]	
CET 4283	Business Practices for Construction [1]	
CET 4563	Construction Law and Insurance [1]	
Total Hours		**17**

1

If CET 3322 is not selected, the total hours required for the certificate will be increased by one.

Minimum Grade Requirements

- 2.0 minimum grade requirement
- "C" or better in CET 1213, CET 2253, CET 2333, CET 2263, and CET 3273

Emergency Management (EM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Grade Point Average in Minor Coursework: 2.50 with no grade below "C."
Total Hours: 15

Code	Title	Hours
FEMP 3103	Introduction to Emergency Management (S)	3
FEMP 3733	Emergency Management: Preparedness and Response	3
FEMP 3763	Emergency Management: Recovery and Mitigation	3
Choose 6 hours from the following:		6
FEMP 4000	Topics in Emergency Management	
FEMP 4050	Independent Study in Emergency Management	
POLS 3893	Terrorism & Counterterrorism	
POLS 2033	Introduction to Public Administration	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
SOC 4433	Environmental Sociology (S)	
SOC 4463	Technology and Society	
SOC 4493	Sociology of Environmental Hazards and Disasters (Has Prerequisites)	
FPST 1213	Fire Safety Hazards Recognition	
FPST 2153	Fire Protection Management	
FPST 3013	Safety Management (S)	
BAE 3313	Natural Resources Engineering	
CIVE 3633	Transportation Engineering	
CIVE 3714	Introduction to Geotechnical Engineering	
IEM 2903	Introduction to Industrial Engineering	
IEM 4013	Operations Research	
IEM 4163	Service Systems and Processes	
ENGR 4043	International Engineering Service Learning I (I)	
ENGR 4053	International Engineering Service Learning II (I)	
MGMT 4093	Management of Nonprofit Organizations	
MGMT 4163	Fundraising for Nonprofit Organizations	
AVED 3453	Aviation/Aerospace Security Issues	
AVED 3493	Analysis of Aviation Security Countermeasures	
AVED 3573	Aviation/Aerospace Finance	
AVED 4413	Aviation Terrorism and Asymmetrical Warfare	
AVED 4423	Aviation Security Organizations and Law	
GEOG 3033	Meteorology (N)	
GEOL 3513	Earthquakes, Volcanoes, and Disasters (N)	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Fire Protection and Safety Engineering Technology, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
Select one of the following:		3
ENGL 1113	Composition I	
ENGL 1123	International Freshman Composition I	
ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Select one of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 4013	Statistical Methods I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 2014	University Physics I (LN)	4
Select one of the following:		4
CHEM 1414	General Chemistry for Engineers (LN)	
CHEM 1314 & CHEM 1515	Chemistry I (LN) and Chemistry II (LN)	
CHEM 1215 & CHEM 1225	Chemical Principles I (LN) and Chemical Principles II (LN)	
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		
May be met paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Engineering		
CET 2253	Printreading & BIM [1]	3
or ENGR 1322	Engineering Design with CAD	
Engineering Science		
ENSC 2113	Statics	3
or GENT 2323	Statics	
Select one of the following:		3
MET 3453	Heat Transfer [2]	
MET 3433	Basic Thermodynamics	
ENSC 2213	Thermodynamics	
ENSC 3431	Thermodynamics and Heat Transfer Lab	1
Specialty		
FPST 1213	Fire Safety Hazards Recognition	3
FPST 1373	Fire Suppression and Detection Systems	3
FPST 2023	Industrial and Occupational Safety	3
FPST 2243	Design and Analysis of Sprinkler Systems	3
FPST 2343	Elements of Industrial Hygiene	3
FPST 2483	Fluid Mechanics for Fire Protection	3
Hours Subtotal		**29**
Major Requirements		
Select one of the following:		3
ENSC 2143	Strength of Materials	
GENT 3323	Strength of Materials	
ENSC 3313	Materials Science	
Select one of the following:		3
STAT 3013	Intermediate Statistical Analysis	
STAT 4023	Statistical Methods II	
STAT 4043	Applied Regression Analysis	
MATH 2163	Calculus III	
MATH 2233	Differential Equations	
MATH 3013	Linear Algebra (Q)	
IEM 3503	Engineering Economic Analysis	3
or IEM 3513	Economic Decision Analysis	
FPST 3013	Safety Management (S)	3
FPST 3143	Life Safety Analysis	3
FPST 3213	Human Factors in Accident Prevention	3
FPST 3373	Fire Dynamics	3
FPST 3383	Building Electrical Systems	3
or PHYS 1214	College Physics II (LN)	
or PHYS 2114	University Physics II (LN)	
FPST 4143	Industrial Ventilation and Smoke Control	3
FPST 4333	System and Process Safety Analysis	3
FPST 4403	Hazardous Materials Management	3

FPST 4683	Risk Control Engineering	3
Select one of the Following		4
FPST 4994	Fire Protection and Safety Projects	
FPST 4982 & FPST 4992	Fire Protection and Safety Projects I and Fire Protection & Safety Projects II	
Select 5-6 hours of specialty electives of the following: [1]		5
CET 2263	Estimating I	
CET 3213	Soft Skills for Effective Interpersonal Communication (S)	
CET 4443	Construction Safety and Loss Control	
FEMP 3103	Introduction to Emergency Management (S)	
FEMP 3733	Emergency Management: Preparedness and Response	
FEMP 3763	Emergency Management: Recovery and Mitigation	
FPST and FSEP courses not used elsewhere.		
FPST 2153	Fire Protection Management	
FPST 3113	Advanced Special Hazard Suppression and Detection	
FPST 3611	Human Behavior in Fire	
FPST 3621	Wildland Urban Interface Fire Impact on Infrastructure	
FPST 3631	Fire Impact on Tall Building Infrastructure	
FPST 4153	Issues in Local Government and Fire Services	
FPST 4213	Advanced Building Design and Analysis	
FPST 4233	Advance Exposure Assessment	
FPST 4383	Fire and Evacuation Modeling	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
ENGR 2400	Engineering Lab Topics	
ENGR 2421	Engineering Data Acquisition Controls Lab	
ENSC courses not used elsewhere (except ENSC 2213 if MET 3433 is used for Engineering Science Requirements)		
MET 3433	Basic Thermodynamics [2]	
or ENSC 2213	Thermodynamics	
or MET 3453	Heat Transfer	
MET 3433 can NOT be used if ENSC 2213 is used for Engineering Science Requirements		
MGMT 3133	Developing Leadership Skills	
Hours Subtotal		**45**
Electives		
Select 9 hours of upper-division controlled electives of the following:		9
FPST courses not used elsewhere		
CET 4443	Construction Safety and Loss Control	
FPST 3113	Advanced Special Hazard Suppression and Detection	
FPST 3611	Human Behavior in Fire	
FPST 3621	Wildland Urban Interface Fire Impact on Infrastructure	
FPST 3631	Fire Impact on Tall Building Infrastructure	
FPST 4153	Issues in Local Government and Fire Services	
FPST 4213	Advanced Building Design and Analysis	
FPST 4233	Advance Exposure Assessment	
FPST 4383	Fire and Evacuation Modeling	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
Hours Subtotal		**9**
Total Hours		**125**

1 Students who take ENGR 1322 instead of CET 2253 will need to take an extra hour of related specialty

2 MET 3453 replaces MET 4433 and is equivalent.

Graduation Requirements

1. A minimum technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for the courses.
2. A grade of 'C' or better is required in each course that is a prerequisite to a required course that has an engineering or engineering technology prefix. A Grade of 'C' of better is also required in FPST 4683, FPST 4992 and FPST 4994.

Below are the courses that require a "C" using the 2023-2024 catalog but the prerequisites are subject to change.

Code	Title	Hours
CET 2253	Printreading & BIM	3
or ENGR 1322	Engineering Design with CAD	
CHEM 1414	General Chemistry for Engineers (LN)	4
ENGL 1113	Composition I	3
ENGL 3323	Technical Writing	3
ENSC 2113	Statics	3
or GENT 2323	Statics	
FPST 1213	Fire Safety Hazards Recognition	3
FPST 1373	Fire Suppression and Detection Systems	3
FPST 2023	Industrial and Occupational Safety	3
FPST 2243	Design and Analysis of Sprinkler Systems	3
FPST 2343	Elements of Industrial Hygiene	3
FPST 2483	Fluid Mechanics for Fire Protection	3
FPST 3013	Safety Management (S)	3
FPST 3373	Fire Dynamics	3
FPST 4683	Risk Control Engineering	3
FPST 4982	Fire Protection and Safety Projects I	2
FPST 4992	Fire Protection & Safety Projects II	2
FPST 4994	Fire Protection and Safety Projects	4
STAT 2013	Elementary Statistics (Q)	3
or STAT 4013	Statistical Methods I (Q)	
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
MET 3453	Heat Transfer [2]	3
or ENSC 2213	Thermodynamics	

or MET 3433	Basic Thermodynamics	
PHYS 2014	University Physics I (LN)	4

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Safety and Exposure Sciences (SAES), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Virginia Charter, virginia.charter@okstate.edu, 545 Engineering North, 405-744-3237

Minimum Grade Point Average in Minor Coursework of 3.0 with no grade below "C."
Total Hours: 15

Code	Title	Hours
Minor Requirements		
FPST 1213	Fire Safety Hazards Recognition	3
FPST 2023	Industrial and Occupational Safety	3
FPST 2343	Elements of Industrial Hygiene	3
Select 6 hours of the following:		6
AVED 3243	Human Factors in Aviation	
AVED 4113	Aviation Safety	
AVED 4943	Basic Aircraft Accident Investigation	
CIVE 3813	Environmental Engineering Science	
ENGR 4123	Tort and Products Liability Law for Technical Professionals (S)	
ENGR 4133	Environmental Regulation for Technical Professionals (S)	
CET 4443	Construction Safety and Loss Control	
FPST 3013	Safety Management (S)	
FPST 3213	Human Factors in Accident Prevention	
FPST 4143	Industrial Ventilation and Smoke Control	
FPST 4233	Advance Exposure Assessment	
FPST 4333	System and Process Safety Analysis	
IEM 3813	Work Design, Ergonomics, and Human Performance	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Industrial Engineering and Management

Industrial engineering and management focuses on production systems that produce goods or provide services for customers. Industrial engineers define, design, build, operate and improve production processes that convert resources to high quality products or services effectively, efficiently and safely.

People are the fundamental component of production systems. People provide the creativity and leadership essential to make things happen. Hence, industrial engineering is the most people-oriented discipline within the engineering family. Industrial engineers are trained to think in both broad and specific terms. Practicing industrial engineers understand business parameters as well as physical and social parameters within production systems. This breadth allows industrial engineers to function effectively in a wide spectrum of activities ranging from strategic business planning to detailed task design. The wide-angle vision of industrial engineering provides career flexibility, leading to high-level leadership or specialized technical responsibilities.

Industrial engineers are employed in manufacturing organizations (e.g., automotive, electronics, food, and medical manufacturers), service enterprises (e.g., airlines, banks, consulting groups, hospitals, retail companies, theme parks, transportation companies, warehouses) and governmental organizations (e.g., public service and regulatory organizations).

Vision

To inspire and empower our students to become leaders in a wide variety of industries, improve the quality of life for humankind, and change the world for the better, by making societal systems diverse, effective, efficient, and sustainable.

Mission

Continuously and aggressively advance educational and research processes which will attract students who fulfill our vision.

Core Values

Faculty, students and staff work together to build and maintain a learning/mentoring environment where:

- Innovative practices are developed, tested and validated.
- Knowledge and practices are shared.
- Each individual develops to their full potential.
- Professional ethics are practiced at all times.

Educational Objectives and Outcomes

Within a few years after graduation, Industrial Engineering program graduates will become professionals, managers or leaders in a wide variety of industries and apply discovery, problem-solving, leadership and management skills for the benefit of their organization and society at large.

Student Learning Outcomes

Graduating baccalaureate students possess an understanding of fundamental industrial engineering and management concepts, methodologies and technologies as demonstrated by:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The curriculum consists of three primary parts:

1. general studies,
2. core engineering, and
3. professional school topics.

General studies consist of courses such as mathematics, statistics, chemistry, physics, English, behavioral science, history, humanities and arts. Core engineering courses consist of engineering sciences such as materials, statics, electrical circuits, fluid mechanics and thermodynamics. Professional school courses consist of topics such as systems thinking and analysis in engineering, economic analysis, manufacturing processes, computer-aided modeling, work analysis, operations research, quality control, experimental design, facility location and layout, management and leadership, production control, system simulation modeling, information systems, ergonomics and human factors, statistical data analysis, and supply chain management. A capstone design experience, working with a real-world organization, integrates classroom and lab work together in the senior year. Details regarding degree requirements are available in the Undergraduate Programs and Requirements publication.

The Bachelor of Science program in Industrial Engineering and Management is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org , under the general criteria and the Industrial Engineering Program Criteria. https://ceat.okstate.edu/iem/current-students/program-educational-objectives.html

Each IEM student, along with the faculty advisor, develops an individual plan of study that guides the student through the curriculum. Coursework is sequenced and interrelated to provide theoretical and applied knowledge, along with hands-on laboratory and project experience. Students work as individuals and as teams to integrate and apply mathematical, scientific, and engineering knowledge and concepts to address both traditional academic questions as well as open-ended design and analysis challenges. Instruction in experimental methods is integrated in the curriculum through the design, execution, analysis and interpretation of experiments. Project work is used to develop both technical and communications skills. Technical skills are used to identify,

formulate and address engineering problems, both simple and complex. Communications skills are developed and practiced in written, oral and team interaction formats.

The means to define and design detailed solutions to address customer needs from a system-wide perspective is introduced in the sophomore year and reinforced through the capstone senior design project. Additionally, global perspectives or production systems are introduced and emphasized in the sophomore year so that students understand the nature of global customer bases as well as global competition early in their studies. The curriculum is continually updated to assure that contemporary issues, thinking and tools are integrated in course content as well as instructional delivery. Professional responsibility and ethical behavior are introduced and reinforced throughout the curriculum. Additionally, the need for life-long learning after graduation is stressed.

Students are offered opportunities to enhance their classroom and laboratory experiences through student organizations such as the student chapter of the Association for Supply Chain Management, the Institute of Industrial and Systems Engineers, and the Institute for Operations Research and the Management Sciences. Outstanding scholars are recognized by Alpha Pi Mu, the national honor society for industrial engineering students. Additionally, opportunities for internship and co-op experiences are offered to IEM students so that they can gain professional experience during their collegiate program. Please visit our Internet site http://iem.okstate.edu (http://iem.okstate.edu/) for more information.

Courses

IEM 2903 Introduction to Industrial Engineering
Prerequisites: UNIV 1111 with grade of "C" or better and Sophomore, Junior, or Senior Standing.
Description: Introduces students to enterprise/production systems from the perspective of industrial engineering. As a part of this introduction, the basic concepts and issues involved in professional practice will be discussed. Useful analytical methods and practices for collecting and working with data will be presented. Additionally, modern applications of industrial engineering practices will be introduced. After completion of this class, students will have the ability to describe and apply various industrial engineering methods in the manufacturing and service industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 2911 Lean Six Sigma
Description: Students will learn problem-solving skills to drive process improvement within various organizational settings. Learn Six Sigma methodologies, advanced techniques, and statistical tools essential for leading successful projects will be presented. After completion of the course students will be prepared to take the Six Sigma Green Belt Certification exam.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3103 Probability and Statistics for Engineers I
Prerequisites: MATH 2153 with grade of "C" or better.
Description: An introduction to key concepts and results in probability, random variables, discrete and continuous distributions, mathematical expectations, and joint probability distributions that support applications in industrial engineering and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3303 Manufacturing Processes
Prerequisites: ENGR 1322 with grade of "C" or better or ENGR 1332 with grade of "C" or better and ENSC 3313 with grade of "C" or better.
Description: Manufacturing processes used to transform new materials including metals and non-metals into finished goods. Traditional and nontraditional manufacturing processes. Introduction to CAD/CAM. Basic process selection. Metrology and measurement fundamentals.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 3403 Engineering Project Management
Prerequisites: Junior standing or Senior Standing.
Description: Engineering management and group issues involved in project planning and implementation. Topics addressed include project management methodologies and software, ethics and social responsibility, organizational structures, situational leadership, individual behavior and motivation, teamwork structures, processes, collaborative technologies, process management, organizational culture, and diversity and inclusion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3503 Engineering Economic Analysis
Prerequisites: MATH 2153 with grade of "C" or better or MATH 2133 with grade of "C" or better.
Description: Development and use of time value of money models. Bases for comparison of alternatives, including present worth, annual worth, rate of return and payout period methods. Decision-making among independent, dependent, capital-constrained and unequal-life projects. Replacement, breakeven and minimum cost analyses. Depreciation and depletion methods and their effect on corporate income taxes, leading to after-tax cash flow analysis. Introduction to financial reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3513 Economic Decision Analysis
Prerequisites: MATH 2123 with grade of "C" or better or MATH 2144 with grade of "C" or better.
Description: Quantitative evaluation of investment alternatives for non-engineering majors. The role of interest in economic equivalence and in formulating economic comparisons based on present worth, annual equivalent, rate of return and payout criteria. Accounting, depreciation and income tax considerations. Benefit-cost and cost-effectiveness analysis. Cost estimation and allowance for variance in estimates. Not available for credit in industrial engineering curriculum.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3523 Engineering Cost Information and Control Systems
Prerequisites: MATH 2144 with grade of "C" or better.
Description: Introduction to basic accounting concepts and operating characteristics of accounting systems relevant to engineering analysis and decision making. Principles of financial and managerial accounting, activity based costing, taxes and depreciation. Emphasis on interpretation and use of accounting information for decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3703 Probability and Statistics for Engineers II
Prerequisites: IEM 3103 with grade of "C" or better.
Description: An introduction to key concepts and results in statistics, including confidence intervals and hypothesis tests for the mean and the variance, analysis of variance, linear regression, correlation, goodness of fit tests and categorical data analysis that support applications in industrial engineering and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3713 Software Programming for Data Analytics
Prerequisites: ENGR 1412 with grade of "C" or better.
Description: This course introduces basic concepts and applications that are important for understanding software programming in data analytics, such as raw data manipulation, exploratory analysis, and machine learning. The primary focus in this course is on programming ideas, algorithm toolboxes, implementations and applications of data analytics methods in industrial applications (e.g., manufacturing, healthcare). Programming will be done using Python and R with a focus on real-world data analytics problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 3813 Work Design, Ergonomics, and Human Performance
Prerequisites: ENSC 2113 with grade of "C" or better and IEM 2903 with grade of "C" or better and IEM 3103 with grade of "C" or better.
Description: Evaluation and design of work systems and processes employing humans. Emphasis on simultaneously achieving high productivity and employee health, safety and satisfaction.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4010 Industrial Engineering Projects
Prerequisites: Consent of school head.
Description: Special undergraduate projects and independent study in industrial engineering. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 4013 Operations Research
Prerequisites: MATH 3013 with grade of "C" or better.
Description: Introduction to operations research, analytics, and mathematical optimization with an emphasis on topics in linear, integer, and network optimization. Effective model formulation and software solution of strategic, tactical and operational problems encountered in manufacturing, and service industries. Covers the simplex method, duality theory, sensitivity analysis, branch-and bound, network simplex, and Dijkstra's algorithm. Previously offered as IEM 4014.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4020 Undergraduate Engineering Practicum
Prerequisites: Consent of IEM adviser and satisfactory completion of at least 12 hours of IEM 3000- or IEM 4000-level courses.
Description: Professionally supervised experience in real life problem solving involving industrial projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the instructor. May consist of full- or part-time engineering experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports both oral and written required as specified by the adviser. Offered for variable credit, 1-3 credit hours, maximum of 4 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 4103 Quality Control and Reliability Analysis
Prerequisites: IEM 3703 with grade of "C" or better.
Description: Performance excellence in an enterprise, including relationships between industrial engineering and quality control. Statistical quality control concepts to measure, monitor, diagnose, and improve performance at the enterprise level, the operational level, and the project level. Perform basic reliability analysis. Quantitative and qualitative quality tools to solve problems and capture opportunities for improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4113 Experimental Design and Analysis for Engineering
Prerequisites: IEM 3703 with grade of "C" or better.
Description: Introduces the design of experiments (DoE) methods with statistical analysis for the purpose of process/system improvement in engineering. The covered DoE methods include single-factor & multiple-factor design, factorial design, blocked design, and fractional design. The related statistical analysis including hypothesis test, analysis of variance (ANOVA), linear regression, and response surface will also be introduced with various examples in engineering. Recommended statistical software is R.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4163 Service Systems and Processes
Prerequisites: IEM 3103 with grade of "C" or better and IEM 3503 with grade of "C" or better.
Description: Design and analysis of service systems and processes from the perspective of industrial engineering and engineering management. Application of basic industrial engineering principles and tools applied to service systems. Basics of service quality and productivity, including metrics, measurement and improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4203 Facilities and Material Handling System Design
Prerequisites: IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Design principles and analytical procedures for determining facility location and location of physical assets within a facility. Introduction to material-handling concepts, technologies and methods. Considerations include production processes, product volume, material flow and information flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4383 Additive Manufacturing: Fundamentals, Processes, Applications, and Implications
Prerequisites: (ENGR 1322 with a "C" or better OR ENGR 1332 with a "C" or better OR MET 1123 with a "C" or better) AND (ENSC 3313 with a "C" or better OR MET 3343 with a "C" or better OR IEM 3303 with a "C" or better OR MAE 3123 with a "C" or better).
Description: This course covers fundamental, advanced, and emerging additive manufacturing (AM) topics. It has 4 modules: 1) AM fundamentals, 2) processes & capabilities, 3) AM applications, and 4) business & societal implications. Students gain design and process planning skills, hands-on experience with popular AM processes, learn about new applications in industries like medical and aerospace, and explore the business side of AM implementation and industry disruption. May not be used for degree credit with IEM 5383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4413 Industrial Organization Management
Prerequisites: IEM 2903 with grade of "C" or better and IEM 3403 with grade of "C" or better.
Description: Issues, concepts, theories and insights of engineering management and applications emphasizing effective performance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4613 Production Planning and Control Systems
Prerequisites: IEM 4013 with grade of "C" or better.
Description: Concepts of planning and control for production and control systems. Design of operation planning and control systems. Techniques used in demand forecasting, operations planning, inventory control, scheduling, and progress control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4623 Supply Chain and Logistics
Prerequisites: IEM 3103 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Introducing basic concepts and methods in supply chain management. Developing managerial insights into supply chain strategies in the global economy. Measuring supply chain performance under dynamic market conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4713 Systems Simulation Modeling
Prerequisites: IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: Simulation of discrete-event systems, including problem formulation, translation to a computer model, and use of a model for problem solution as well as concepts of random variable selection and generation, model validation and statistical analysis of results.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4723 Information Systems Design and Development
Prerequisites: Junior Standing or Senior Standing.
Description: Overview of IS/IT concepts. Systems development methodology, modeling methods, and software tools for the design and development of information systems, especially relational database applications. Data modeling using the Entity Relationship Diagram (ERD). Implementing and manipulating relational databases using SQL and MS Access. Process modeling using the UML Activity Diagram. Introduction to Enterprise Resource Planning and Geographic Information systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4783 Applied Statistical Analysis in R for Engineers
Prerequisites: ENGR 1412 with grade of "C" or better and IEM 3703 with grade of "C" or better and IEM 4013 with grade of "C" or better.
Description: The overall goal of this course is to provide an applied overview to statistical learning for real industrial engineering problems using R programming. Topics In this course cover advanced linear and non-linear methods of statistical learning such as multivariate regression, mixed-effects regression, advanced logit regression, clustering methods, generalized additive models, tree-based methods, support vector machines. and Bayesian methods. May not be used for degree credit with IEM 5783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4823 Human Factors Engineering
Prerequisites: IEM 3813 with grade of "C" or better.
Description: Design-focused course that introduces students to human factors engineering and human-centered design, provides an overview of human anatomy and psychology theories, how the human body and its limitations affect engineering design, and then discuss how human factors-driven designs lead to a reduction of human error in complex systems. Topics primarily cover cognitive human factors theories including visual detection, signal detection theory, multiple resource theory, memory and decision making, human error, multitasking, cognitive limitations and how to design displays, controls, automation and other complex systems based on users' cognitive abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4913 Senior Design Projects
Prerequisites: Terminal semester only and IEM majors only and IEM 3403 with grade of "C" or better and IEM 3503 with a grade of "C" or better.
Description: Student teams work on professional-level engineering projects selected from a wide range of participating organizations. Projects are equivalent to those normally experienced by beginning professionals and require both oral and written reports. Normally taken during student's last semester of undergraduate work.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 4931 Industrial Engineering and Management Seminar
Prerequisites: Senior standing.
Description: Designed to orient seniors to their professional work environment. Topics include placement procedures, resume construction, interviewing skills, professional dress, graduate school, professional societies and registration, personal management of time and money, and job-related expectations. Taught by senior faculty; utilizes outside speakers.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4953 Industrial Assessment and Improvement
Prerequisites: Senior standing and consent of instructor.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 5953 or MET 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 4990 Selected Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Study of selected contemporary topics in industrial engineering and management, including operations research; quality; manufacturing systems; engineering management; enterprise systems and supply chains; facilities, energy, and environmental management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5000 Master's Research and Thesis
Prerequisites: Approval of major adviser.
Description: Research and thesis for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5003 Probability and Statistics for Engineers
Prerequisites: STAT 4033 or IEM 3103.
Description: Probability and statistical topics and methods used in various areas of industrial engineering including random numbers, probability theory, conditional probabilities, parameter estimation, confidence intervals, hypothesis testing, and regression models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5010 Industrial Engineering Projects
Prerequisites: Consent of school head and approval of major adviser.
Description: Special graduate projects and independent study in industrial engineering. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5013 Introduction to Optimization
Prerequisites: IEM 4013 or equivalent.
Description: Introduction to mathematical optimization with an emphasis on linear, integer, network, and convex optimization. Effective formulization techniques, basic mathematical and algorithmic concepts, and software solution of large-scale problems arising in the practice of operations research, industrial and systems engineering, management sciences, and analytics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5020 Graduate Engineering Practicum
Prerequisites: Consent of School Head, approval of IEM advisor, and satisfactory completion of two consecutive regular (Fall/Spring) semesters.
Description: Professionally supervised experience in a real-life problem involving authentic projects for which the student assumes a degree of professional responsibility. Activities must be approved in advance by the student's advisor. May consist of full or part-time engineering experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the advisor. All eligible IEM 5020 credit hours should be included in the Plan of Study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5063 Network Optimization
Prerequisites: IEM 5013 or equivalent.
Description: Network flows and combinatorial optimization models and algorithms with an emphasis on mathematical and algorithmic fundamentals. Covers basics of graph theory, algorithmic analysis, and complexity theory. Covers Classical Algorithms for shortest paths, minimum spanning trees, max-flow and min-cut, min-cost flows; P versus NP, traveling salesman problem, local search, metaheuristics, Christofides algorithm. Previously offered as IEM 6013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5103 Breakthrough Quality and Reliability
Prerequisites: IEM 5003 of equivalent.
Description: Performance excellence in an enterprise, including relationships between industrial engineering and quality control. Statistical quality control concepts to measure, monitor, diagnose, and improve performance at the enterprise level, the operational level, and the project level. Perform basic reliability analysis. Quantitative and qualitative quality tools to solve problems and capture opportunities for improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5113 Strategic Quality Leadership
Prerequisites: STAT 4013 and IEM 5003.
Description: Quality-related strategies. Critical elements that differentiate high performing organizations from their competitors. Delivering value to customers. Quality leadership, strategic planning, customer value, learning organizations, knowledge management, quality systems and business results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5123 Service Quality
Prerequisites: STAT 4013 or equivalent.
Description: Theory and application of service quality, including characteristics of services (intangibility, heterogeneity, perishability and inseparability of production and consumption), dimensions of service quality, measurement methodologies for service quality and improvement methodologies for service quality. Certification and accreditation processes for service industries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5133 Stochastic Processes
Prerequisites: MATH 2233, MATH 3013, and IEM 5003 or STAT 5123.
Description: Definition of stochastic processes, probability structure, mean and covariance function, the set of sample functions. Renewal processes, counting processes, Markov chains, birth and death processes, stationary processes and their spectral analyses. Same course as STAT 5133 & MATH 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5143 Reliability and Maintainability
Prerequisites: STAT 4033 and IEM 5003.
Description: Probabilistic failure models of components and systems. Detailed study of reliability measures, and static and dynamic reliability models. Classical and Bayesian reliability testing for point and interval estimation of exponential and Weibull failures. Reliability optimization through allocation and redundancy. Fundamentals of maintainability. Previously offered as IEM 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5153 Process Design and Integration
Prerequisites: STAT 4033 or equivalent.
Description: Process design, integration, control, and improvement within and between enterprises. Analytical and systems approaches to address physical and statistical characterization of inputs, transformations, and outputs. Modeling issues, including process mapping, cause and effect analysis, and impact projection. Purpose, linkages, value, leverage, measurement, creativity and leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5203 Facility Location, Warehousing and Transportation
Prerequisites: IEM 5003 and IEM 5013.
Description: Analytical models for single and multi-facility location problems. Algorithms for network location problems including the median, center, and covering problems. Storage policies such as dedicated, randomized and class-based and their relationship to the warehouse layout problem. Order picking and routing in warehouses. Warehouse material handling and storage/retrieval systems. Overview of the Vehicle Routing Problem (VRP). Clark and Wright heuristic for the single-depot VRP problem.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5350 Industrial Engineering Problems
Description: A detailed investigation into one area of industrial engineering with a required written report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 5383 Additive Manufacturing: Fundamentals, Processes, Applications, and Implications
Prerequisites: (ENGR 1322 with a "C" or better OR ENGR 1332 with a "C" or better OR MET 1123 with a "C" or better) AND (ENSC 3313 with a "C" or better OR MET 3343 with a "C" or better OR IEM 3303 with a "C" or better OR MAE 3123 with a "C" or better) OR equivalents.
Description: This course covers fundamental, advanced, and emerging additive manufacturing (AM) topics. It has 4 modules: 1) AM fundamentals, 2) processes & capabilities, 3) AM applications, and 4) business & societal implications. Students gain design and process planning skills, hands-on experience with popular AM processes, learn about new applications in industries like medical and aerospace, and explore the business side of AM implementation and industry disruption. May not be used for degree credit with IEM 4383.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Industrial Engr & Mgmt

IEM 5413 Engineering Entrepreneurship
Description: Advanced study of engineering entrepreneurship in the technical organization including: new product evaluation and selection, technology commercialization process, business plan preparation, intellectual property, patent search and discovery, new enterprise development, market analysis, and capital investment procurement strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5503 Financial and Advanced Capital Investment Analysis
Prerequisites: IEM 3503, IEM 4013, STAT 4033 or IEM 3103 or equivalent.
Description: An understanding of financial concepts and markets, and an advanced treatment of proper methods of capital project selection under risk and uncertainty. Decision making under capital rationing. Financial environment and valuing securities, representing cash flows, selecting investments, avoiding common pitfalls, evaluating timing consideration, depreciation and corporate taxation, replacement analysis, and incorporating risk and uncertainty.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5603 Project Management
Prerequisites: IEM 3403 or equivalent.
Description: A systems approach to planning, organizing, scheduling and controlling projects. The behavioral and quantitative aspects of project management. Importance of working with personnel as well as technology. Project management software utilized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5613 Integrated Manufacturing Control Systems
Prerequisites: IEM 4613.
Description: Advanced treatment of planning and control philosophies and techniques for manufacturing and production systems. Approaches focusing on demand-driven control and achieving competitive advantage through manufacturing. Material requirements planning, capacity planning, shop floor control, master scheduling, production planning and demand management. Just-in-time and the theory of constraints.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5633 Advanced Production and Inventory Control
Prerequisites: IEM 5013 and IEM 5763.
Description: Advanced concepts and quantitative techniques used in production planning and inventory control, including static and dynamic scheduling of machines and cells, deterministic and stochastic inventory control, multi-echelon supply chain management, demand forecasting, and revenue management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5683 Advanced Data Analytics in Industrial Engineering
Prerequisites: IEM 5003 with a "C" or better.
Description: The course focuses on advanced data analytics methods tailored for engineering applications. Foundational topics include probability and statistics and generalized linear regression. The course covers neural networks, deep learning, and reinforcement learning along with the interpretability of models and considerations for data-driven decision-making. The methods will be taught while solving real-world problems (such as demand forecasting, failure prediction, defect detection, healthcare analytics, etc.).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5703 Discrete System Simulation
Prerequisites: IEM 5003.
Description: Discrete-event systems via computer simulation models. Model building and the design and analysis of simulation experiments for complex systems. Application to a variety of problem areas. Use of simulation languages and related software tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5723 Data, Process and Object Modeling
Prerequisites: Graduate standing or consent of instructor.
Description: Systems development life cycle and methodology. Structured and object-oriented analysis and design techniques. Data modeling using the Entity-Relationship Diagram and IDEF1x. Data normalization techniques. Relational database implementation using SQL and MS Access. Object-oriented analysis and design using the Unified Process and the Unified Modeling Language (UML). Process modeling using the UML Activity Diagram and Petri nets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5743 Information Systems and Technology
Prerequisites: Graduate standing or consent of instructor.
Description: For current and potential engineering and technology managers. Knowledge of information systems and technology to lead the specification, selection, implementation, and integration of information technology in manufacturing and service organizations. Management issues involved in the use of information technology in organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5763 Supply Chain Strategy
Prerequisites: IEM 4613 or equivalents.
Description: Supply chain strategy including the philosophical base of business practice and the analytical base of modeling. Supply chain strategy, including key objectives and financial considerations, supply chain dynamics, supply chain performance measurement, supply chain integration, characteristics of different supply chains and supply chain performance modeling.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5783 Applied Statistical Analysis in R for Engineers
Prerequisites: IEM 5003 and IEM 5013.
Description: The overall goal of this course is to provide an applied overview to statistical learning for real industrial engineering problems using R programming. Topics In this course cover advanced linear and non-linear methods of statistical learning such as multivariate regression, mixed-effects regression, advanced logit regression, clustering methods, generalized additive models, tree-based methods, support vector machines. and Bayesian methods. May not be used for degree credit with IEM 4783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5803 Human Factors Engineering
Prerequisites: IEM 3813 or equivalent.
Description: Design-focused that introduces students to human factors engineering & human-centered design; provides an overview of human anatomy and psychological theories, how the human body & its limitations affect engineering design & then discuss how human factors-driven design lead to a reduction of human error in complex systems. Topics primarily cover cognitive human factors theories including visual detection, signal detection theory, multiple resource theory, memory & decision making, human error, multitasking, cognitive limitations & how to design displays, controls, automation, & other complex systems based on users' cognitive abilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5813 Performance Measurement Systems
Prerequisites: IEM 3813 or equivalent.
Description: Strategies and methods to define, measure, and apply individual, group- and organizational-level performance metrics in a variety of service and production contexts. Implementation and effective use of metrics. Measurement's role in a management system, managerial decision styles and preferences, operational definitions of performance, processes for identifying and applying metrics, performance measurement tools and techniques, data collection, portrayal of quantitative and qualitative information, and the role of computer technology in measurement system application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5953 Industrial Assessment and Improvement
Prerequisites: Senior standing and consent of instructor.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 4953 or MET 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 5990 Special Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Study of selected contemporary topics in industrial engineering and management including operations research; quality and reliability; manufacturing systems; engineering management; enterprise systems and supply chains; facilities, energy, and environmental management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6000 Doctoral Research and Dissertation
Prerequisites: Approval of major adviser and advisory committee.
Description: Independent research for PhD dissertation requirement under direction of a member of the Graduate Faculty. Offered for variable credit, 1-15 credit hours, maximum of 30 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6033 Linear Optimization
Prerequisites: Concurrent Prerequisite IEM 5013 or consent of instructor.
Description: Mathematical theory of linear optimization and the implications for algorithm development. Fundamentals of convex analysis, polyhedral sets, development of the simplex method, Farkas' lemma, development of duality theory, sensitivity analysis, Dantzig-Wolfe decomposition, Benders decomposition, interior point algorithms. Previously offered as IEM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6043 Nonlinear Optimization
Prerequisites: IEM 6033 or consent of instructor.
Description: Mathematical foundations of nonlinear optimization theory and algorithms. Introduction to convex analysis, local/global optima, optimality conditions, and their implications for model and algorithm development. Convex functions and generalizations, Fritz John and Karush-Kuhn-Tucker optimality conditions, constraint qualifications, Lagrangian duality and saddle point optimality conditions, gradient-based and quasi-Newton methods for unconstrained optimization. Previously offered as IEM 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6053 Integer and Combinatorial Optimization
Prerequisites: Concurrent prerequisites. IEM 5063, IEM 6033, or consent of instructor.
Description: Theory, algorithms, and applications of discrete optimization. Binary, pure, and mixed-integer linear optimization formulations, relaxations; preprocessing, branch and bound, formulation strength, polynomial equivalence of separation and optimization; theory of polyhedra, convex hulls and facets, valid inequalities for pure and mixed-integer problems, lifting, perfect formulations, extended formulations. Previously offered as IEM 6023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6063 Optimization Under Uncertainty
Prerequisites: IEM 5013, IEM 6033, IEM 5003 or consent of instructor.
Description: Introduction to concepts, principles, and techniques for optimization under uncertainty. Formulating two-stage stochastic linear and integer programs; sample average approximation and decomposition methods; conditional value-at-risk and chance-constrained optimization; robust linear optimization, robust conic optimization, and robust multi-stage optimization; distributionally robust and data-driven optimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6110 Special Problems in Industrial Engineering
Prerequisites: Consent of school head and approval of major adviser.
Description: Special problems in industrial engineering and management under supervision of a member of the Graduate Faculty. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

IEM 6123 Queuing Systems: Theory and Manufacturing Applications
Prerequisites: IEM 5003, STAT 5133 or consent of instructor.
Description: Review of probability, stochastic processes, and Markov chains. Single-server and multi-server exponential queuing models. Queuing models with Poisson arrivals and general service times. Product form queuing network models: open and closed network models, mean value analysis algorithms for closed models, and single class and multiclass models. Approximations for general single server queues and non-product form networks. Applications of queuing models in the performance analysis of transfer lines, automatic assembly systems, and flexible manufacturing systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Industrial Engr & Mgmt

IEM 6903 IEM Doctoral Seminar
Description: The IE&M Doctoral Seminar is designed to train the doctoral student in the doctoral dissertation research process and is normally taken in the first year of the student's program. The course involves significant work outside the classroom, under the supervision of the student's research advisor. The class meetings will be used for some formal instruction on research methods/process, discussion of current research in IEM lead by select faculty, guest speakers, and presentations by students.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Graduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Industrial Engr & Mgmt

IEM 6990 Advanced Topics in Industrial Engineering and Management
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics of interest to PhD-level students in Industrial Engineering and Management are discussed. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Industrial Engr & Mgmt

Undergraduate Programs

- Industrial Engineering and Management, BSIE (p. 2389)

Graduate Programs

The School of Industrial Engineering and Management offers graduate programs leading to the Master of Science Industrial Engineering and Management degree and the Doctor of Philosophy degree.

The Master of Science degree is characterized by a higher degree of technical specialization in a particular field of study (beyond a BS degree). This degree program is designed to prepare students for professional practice that may include research or consulting components. The Master of Science degree is especially attractive to industrial engineering graduates, engineering graduates from other disciplines, and many science majors. The MS degree includes a strong technical component and an orientation to business and engineering management that is complementary to a technical background.

The Doctor of Philosophy degree is designed to position the student on the leading edge of knowledge in the profession of industrial engineering and engineering management. It is intended to prepare students for highly specialized positions, such as research and consulting in industry, government and service organizations, and for teaching or research positions in colleges and universities.

The basic consideration in graduate education in industrial engineering and management is effective and efficient utilization of human, physical and economic resources. Instruction in management embraces both qualitative and quantitative concepts, including analytical methodologies and social considerations pertinent to organizations.

Advanced degree programs are designed with major emphasis in fields of interest such as engineering management, manufacturing systems, operations research, quality and reliability, facilities and energy-management, and enterprise systems and supply chains. Students may complement industrial engineering and management courses with work in other branches of engineering, as well as economics, business administration, computer science, statistics, mathematics, psychology, and sociology.

Admission Requirements

Admission to the Graduate College is required of all students pursuing the MS or PhD degree. Graduation from an industrial engineering curriculum with scholastic performance distinctly above average qualifies the student for admission to the School of Industrial Engineering and Management as a candidate for the master's and doctorate degrees. Graduates from related disciplines may be admitted if an evaluation of their transcripts and other supporting materials by the School of Industrial Engineering and Management indicates that they are prepared to take graduate-level course work in industrial engineering, or can be expected to do so after a reasonable amount of prerequisite work.

All applicants must submit GRE scores. In addition, the Graduate College may require certain international applicants to submit TOEFL scores.

Degree Requirements

The Master of Science degree in industrial engineering and management may be earned by one of two plans as follows:

Plan I—coursework with thesis. Minimum 30 credit hours consisting of 24 hours of coursework and 6 hours of research with a grade of "SR."

Plan II—coursework without thesis. Minimum of 33 credit hours. May include no more than three hours of independent study project.

The Doctor of Philosophy degree requires the completion of at least 90 credit hours beyond the bachelor's degree or 60 credit hours beyond the master's degree; including a minimum of 18 credit hours of dissertation research and a minimum of 30 credit hours of course work beyond the master's degree.

The School of Industrial Engineering and Management also participates in the Master of Science in Engineering and Technology Management program. Current IE&M program information can be found on the School website http://iem.okstate.edu.

Minors

- Data Analytics for Engineers (DAEN), Minor (p. 2388)

Faculty

Guiping Hu, PhD—Department Head, Professor and Donald & Cathey Humphreys Chair
Regents Professor and John Hendrix Chair: Sunderesh Heragu, PhD
Wilson Bentley Professor: Balabhaskar Balasundaram, PhD
Professor and Ken and Lynn Case Chair: Lizhi Wang, PhD
Professors: Manjunath Kamath, PhD; Tieming Liu, PhD
Associate Professors: Austin Buchanan, PhD; Terry Collins, PhD, PE
Assistant Professors: Akash Deep, PhD; Katie Jurewicz, PhD; Chenang Liu, PhD; Joseph Nuamah, PhD; Paritosh Ramanan, PhD; Srikanthan Ramesh, PhD; Pratima Saravanan, PhD
Teaching Associate Professor: Jennifer Glenn, PhD

Data Analytics for Engineers (DAEN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50 with a grade of "C" or better in each course submitted for the minor.
Total Hours: 15

Code	Title	Hours
Select at least one course from each list:		15
Predictive Analytics		
IEM 4103	Quality Control and Reliability Analysis	
IEM 4783	Applied Statistical Analysis in R for Engineers	
STAT 4043	Applied Regression Analysis	
STAT 5053	Time Series Analysis	
CS 4783	Machine Learning	
CS 5783	Machine Learning	
CHE 4543	Machine Learning for Chemical Processes	
Descriptive Analytics		
IEM 3103	Probability and Statistics for Engineers I	
IEM 3703	Probability and Statistics for Engineers II	
IEM 4713	Systems Simulation Modeling	
CHE 4493	Introduction to Molecular Modeling and Simulation	
STAT 4033	Engineering Statistics	
STAT 4091	Sas Programming	
CS 5683	Big Data Analytics	
Prescriptive Analytics		
IEM 4013	Operations Research	
IEM 4113	Experimental Design and Analysis for Engineering	
CHE 4002	Chemical Engineering Laboratory I	
CHE 4112	Chemical Engineering Laboratory II	
STAT 4073	Engineering Statistics with Design of Experiments	
STAT 4023	Statistical Methods II	
MATH 4553	Introduction to Optimization	
CS 5793	Artificial Intell II	
Data Analysis Tools		
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers	
CS 3513	Numerical Methods for Digital Computers	
IEM 3713	Software Programming for Data Analytics	
IEM 4783	Applied Statistical Analysis in R for Engineers	
MATH 4513	Introduction to Numerical Analysis	
MATH 5553	Numerical Analysis for Linear Algebra	
MAE 3403	Computer Methods in Analysis and Design	
STAT 4191	R Programming	
STAT 4463	Statistical Machine Learning with R	
IEM 4723	Information Systems Design and Development	
EET 3363	Data Acquisition	
ENGR 2421	Engineering Data Acquisition Controls Lab	
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Industrial Engineering and Management, BSIE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 123

Code	Title	Hours
General Education Requirements		
English Composition		
Select one of the following:		3
ENGL 1113	Composition I	
ENGL 1313	Critical Analysis and Writing I	
ENGL 1123	International Freshman Composition I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 1223	International Freshman Composition II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College Requirements		
Basic Science		
Engineering		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ENGR 1322	Engineering Design with CAD	2
or ENGR 1332	Engineering Design with CAD for MAE	
ENGR 1412	Introductory Engineering Computer Programming	2
Engineering Science		
ENSC 2113	Statics	3
Select two of the following:		6
ENSC 2123	Elementary Dynamics	
ENSC 2143	Strength of Materials	
ENSC 2213	Thermodynamics	
ENSC 2613	Introduction to Electrical Science	
ENSC 3233	Fluid Mechanics	
Hours Subtotal		**14**
Major Requirements		
Mathematics		
MATH 2163	Calculus III	3
or MATH 2233	Differential Equations	
MATH 3013	Linear Algebra (Q)	3
Engineering Science		
ENSC 3313	Materials Science	3
Industrial Engineering & Management		
IEM 2903	Introduction to Industrial Engineering	3
IEM 3103	Probability and Statistics for Engineers I	3
IEM 3303	Manufacturing Processes	3
IEM 3403	Engineering Project Management	3
IEM 3503	Engineering Economic Analysis	3
IEM 3523	Engineering Cost Information and Control Systems	3
IEM 3703	Probability and Statistics for Engineers II	3
IEM 3713	Software Programming for Data Analytics	3
IEM 3813	Work Design, Ergonomics, and Human Performance	3
IEM 4013	Operations Research	3
IEM 4103	Quality Control and Reliability Analysis	3
IEM 4113	Experimental Design and Analysis for Engineering	3
IEM 4203	Facilities and Material Handling System Design	3
IEM 4613	Production Planning and Control Systems	3
IEM 4623	Supply Chain and Logistics	3
IEM 4713	Systems Simulation Modeling	3
IEM 4723	Information Systems Design and Development	3
IEM 4913	Senior Design Projects	3
Select 6 hours of the following:		6
IEM 4163	Service Systems and Processes	

IEM 4783	Applied Statistical Analysis in R for Engineers	
IEM 4953	Industrial Assessment and Improvement	
IEM 4990	Selected Topics in Industrial Engineering and Management (3)	
Any OSU CEAT, CS, Math or Stat course (3000 level or higher) with Advisor Approval		
Hours Subtotal		**69**
Total Hours		**123**

Other Graduation Requirements

a. A minimum Technical GPA of 2.00. The Technical GPA is calculated from all courses counting in the curriculum with an IEM prefix, or substitutions for these courses.

b. A grade of 'C' or better is required in each course that is a prerequisite to another required course and also in MATH 2163/MATH 2233 and PHYS 2114.

These courses include:

Code	Title	Hours
CHEM 1414	General Chemistry for Engineers (LN)	4-5
or CHEM 1515	Chemistry II (LN)	
UNIV 1111	First Year Seminar	1
ENGR 1322	Engineering Design with CAD	2
or ENGR 1332	Engineering Design with CAD for MAE	
ENGR 1412	Introductory Engineering Computer Programming	2
ENSC 2113	Statics	3
ENSC 3313	Materials Science	3
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
MATH 2163	Calculus III	3
or MATH 2233	Differential Equations	
MATH 3013	Linear Algebra (Q)	3
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
IEM 2903	Introduction to Industrial Engineering	3
IEM 3103	Probability and Statistics for Engineers I	3
IEM 3403	Engineering Project Management	3
IEM 3503	Engineering Economic Analysis	3
IEM 3703	Probability and Statistics for Engineers II	3
IEM 4013	Operations Research	3

c. The major engineering design experience is satisfied by IEM 4913 Senior Design Projects.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Supply Chain and Logistics, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total hours: 16

Code	Title	Hours
Required Courses		
IEM 2911	Lean Six Sigma	1
IEM 3503	Engineering Economic Analysis	3
IEM 4013	Operations Research	3
IEM 4203	Facilities and Material Handling System Design	3
IEM 4613	Production Planning and Control Systems	3
IEM 4623	Supply Chain and Logistics	3
Total Hours		**16**

Other Requirements

- Overall 3.0 in these courses
- MATH 3013 Linear Algebra is a prerequisite for IEM 4013

Materials, Mechatronics and Manufacturing Engineering

The School of Materials, Mechatronics and Manufacturing Engineering (MMME) houses four programs: Materials Science and Engineering, Mechatronics and Robotics, Mechanical Engineering Technology, and Electrical Engineering Technology. In each program, we focus on rigorous preparation of students for practical application of science, mathematics and engineering principles to produce superior professionals for industry and academia.

Materials Science and Engineering (MSE)

Materials Science and Engineering is a graduate-only program focused on the close connection between structure, processing and property relationship inherent in ceramics, metals, polymers, electronic materials and composites. Most other fields of engineering eventually experience materials limitations such as high-temperature strength in engines, corrosion resistance in structures, vehicles and energy exploration infrastructure, miniaturization of electronics and photonics devices, biocompatibility, strength and corrosion resistance of medical implants, reliability of advanced composites for aerospace structures, etc. Materials scientists and engineers use a knowledge of physics, chemistry and mathematics to both understand molecular structure and how processing affects this structure to impact macroscopic performance.

MSE students receive an education focused on foundational sciences of thermodynamics, kinetics, characterization and processing. The field of materials science and engineering is expanding into a period of unprecedented intellectual challenges, opportunities and growth. Products created using materials science and engineering research contribute to the economic strength and security of not only the state, but also the country.

MSE is located at OSU-Tulsa campus at the Helmerich Research Center (HRC), a premier facility in the historic Greenwood district. The HRC is home to electron microscopy, x-ray diffraction, destructive and non-destructive evaluation tools, spectroscopy and thermal analysis tools, a class-100 clean room, and other world-class facilities for materials fabrication and processing.

MSE Program Educational Objectives

The MSE program features both research-intensive and course-intensive paths for graduate degrees. In either path, students study advanced thermodynamics of materials, kinetic processes in materials, advanced materials processing, and materials characterization as core courses. Students typically select specialty elective courses from MSE, Chemistry, Physics, Mechanical and Aerospace Engineering, Civil Engineering, Chemical Engineering and Electrical and Computer Engineering to round out their curriculum. Students holding Bachelor of Science degrees in any of these fields can succeed in MSE. Graduates of the MSE program find employment throughout industry, in government labs and in academia. A hallmark of either the MS or PhD graduate is the publication of peer-reviewed academic articles related to their research. Likewise, during the course of study, students attend national and international conferences to present their work to other materials scientists and engineers.

MSE Degrees

Master of Science: Two options exist to receive an MS degree: (1) a 30 credit hour, thesis-based program where the student conducts research and submits a thesis for examination, and (2) a 32 credit hour, non-thesis-based program (MEN) where the students complete a creative project and submit a report for examination.

Doctor of Philosophy: The PhD is a research-intensive program consisting of 42-60 credit hours beyond the MS degree where the candidate is expected to formulate an original research proposal, conduct research and write an authoritative dissertation to be submitted for examination.

Mechatronics and Robotics (MERO) Engineering

Mechatronics and Robotics is an integrated engineering program comprised of mechanical engineering, electrical/electronic engineering, control systems, and computer science principles. MERO systems are pervasive throughout our modern society (e.g, advanced manufacturing, transportation, healthcare, automation, service robots, military and police services, etc.) with demand for qualified engineers growing at a rapid pace. MERO is an excellent choice for students with an aptitude toward mechanical, electrical and computer engineering who like to build smart systems.

The MERO undergraduate curriculum emphasizes application of mathematics, science and engineering principles to solve practical problems. A hallmark of the program is significant laboratory experience led by expert faculty in: mechatronics, industrial robots, Programmable logic controller (PLC), DC/AC circuits, fluid power, materials, basic instrumentation, 3D printing, computer-aided design, manufacturing, and engineering (CAD/CAM/CAE). The latest computer software is provided and supported for the courses that MERO students take. Where appropriate, laboratories with modern computer data acquisition systems and on-screen displays are available.

Senior capstone design integrates the knowledge and skills learned during this course of study. MERO graduates are prepared to enter the workforce either as employees of major companies or small businesses, entrepreneurs, or to continue to pursue graduate studies. Multiple MERO major courses are popular among engineering undergraduate and graduate students from other disciplines who want to augment their resume for their job search or improve the impact of thesis/dissertation research.

In addition to the required mechatronics and robotics courses, students are provided with a solid foundation in calculus, physics, linear algebra, differential equations, statistics, chemistry, and computer science.

MERO Degrees

The MERO program offers Bachelor of Science in Engineering Technology (BSET) and Master of Science degrees. Additionally, Minors can be obtained by students in the Electrical Engineering Technology and Mechanical Engineering Technology programs.

MERO Program Educational Objectives

MERO at Oklahoma State University focuses on preparing students for a dynamic, rapidly growing workforce. OSU MERO graduates should be able to:

1. Integrate new technologies and methods into their workplace to maximize value to their employer.
2. Employ the latest design, analysis and simulation tools in the mechatronics and robotics discipline.
3. Work independently and collaboratively with professionalism and high ethical standards.

4. Communicate effectively and professionally across all mediums, from written reports to electronic communications.
5. Be a life-long learner through participation and membership in professional organizations, a continuation of professional/graduate studies, and/or self-study.

MERO Student Outcomes
Students graduating from the MERO program are expected to achieve the following:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in broadly defined technical and non-technical environments, and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
5. an ability to function effectively as a member as well as a leader on technical teams.

MERO Accreditation
The Mechatronics and Robotics Engineering Technology program is applying for accreditation by the Engineering Technology Accreditation Commission of ABET (www.abet.org (http://www.abet.org/)) in 2026.

Mechanical Engineering Technology (MET)
The Mechanical Engineering Technology (MET) program prepares students for practical, hands-on engineering careers in fields such as mechanical design, manufacturing, automation, fluid power, materials, and thermal systems. Students receive extensive laboratory training in areas including mechatronics, fluid mechanics, thermal science, instrumentation, CAD/CAM/CAE, and 3D printing—using modern, industry-relevant tools under the guidance of expert faculty.

Backed by rigorous classroom instruction, the MET curriculum equips students with strong foundations in mathematics, physics, chemistry, and computer programming, while building applied skills in mechanical engineering principles. Students also gain essential experience in communication, ethics, and teamwork, ensuring they are well-rounded professionals ready for the workplace. Our ABET-accredited MET program encourages the Fundamentals of Engineering (FE) exam before graduation and Professional Engineer (PE) licensure – credentials that support success in engineering careers across a wide range of roles, including field engineer, project manager and entrepreneur.

Students earn a Bachelor of Science in Engineering Technology with a major in Mechanical Engineering Technology. Options include a minor in Mechatronics or Entrepreneurship, and a senior capstone experience that features industry-sponsored, team-based design projects integrating skills acquired throughout the program.

MET Educational Objectives
A few years after graduation, OSU MET graduates will:

- Seek Professional Engineer (PE) licensure as their career assumes greater responsibility and leadership roles.
- Apply the latest tools and methods in engineering and manufacturing design.
- Integrate new technologies and innovations to add value in their organizations.
- Work effectively in collaborative, interdisciplinary team settings.
- Demonstrate professionalism, ethics, and personal integrity in the workplace.
- Engage in life-long learning through professional societies, graduate studies, and independent development.

MET Student Outcomes
Graduates of the program will have:

1. An ability to apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems.
2. An ability to design systems, components, or processes that meet specified needs in mechanical engineering contexts.
3. Proficiency in written, oral, and graphical communication in technical and non-technical environments, and the ability to use relevant technical literature.
4. An ability to conduct standard tests and experiments, analyze data, and use results to improve processes.
5. An ability to function effectively as a team member or leader on technical teams.

MET Career Relevance and Industry Demand
Graduates of the MET program are prepared for immediate contribution in a wide variety of industries. These include:

- Manufacturing (e.g., aerospace, automotive, industrial machinery)
- Energy (e.g., oil & gas, power generation)
- Engineering services (e.g., HVAC, design firms, transportation)

Graduates possess both the technical depth and applied skills to design, analyze, test, and implement mechanical systems and processes with minimal additional training.

MET Degree
Students earn a Bachelor of Science in Engineering Technology (BSET) with a major in Mechanical Engineering Technology. Program options include a Computer emphasis or a minor in Mechatronics and Robotics (MERO).

MET Accreditation
The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET (www.abet.org (http://www.abet.org/)).

Electrical Engineering Technology (EET)
The Electrical Engineering Technology (EET) program prepares students for practical engineering careers in electronics control, power systems, communications, and computation. Our ABET-accredited program emphasizes hands-on learning, with laboratory-intensive coursework guided by expert faculty using modern industrial tools. Rigorous classroom instruction complements this experience by reinforcing fundamental concepts in mathematics, science, and engineering.

The program encourages students to take the Fundamentals of Engineering (FE) exam before graduation and pursue Professional Engineer (PE) licensure, supporting diverse career paths as field engineers, project managers, or entrepreneurs.

EET Program Educational Objectives

A few years after graduation, OSU EET graduates will:

- Stay current with evolving industry standards through continuing education or graduate studies and apply this knowledge to their professional practice.
- Demonstrate professionalism and ethical standards through both independent and collaborative work.
- Show continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers.

EET Program Outcomes

Graduates of the program will have:

(1) An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;

(2) An ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline;

(3) An ability to apply written, oral, and graphical communication in broadly defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

(5) An ability to function effectively as a member as well as a leader on technical teams.

EET Career Relevance and Industry Demand

EET graduates are equipped to enter a wide array of dynamic and growing fields within electrical engineering and applied technology. Demand remains strong for professionals skilled in both electrical and electronic system design and application. The Computer option equips graduates for careers in computer hardware and software engineering, aligning with rising demand in automation, robotics, and artificial intelligence.

EET Degree

Students earn a Bachelor of Science in Engineering Technology (BSET) with a major in Electrical Engineering Technology. Program options include a Computer emphasis or a minor in Mechatronics and Robotics (MERO).

EET Accreditation

The Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org (http://www.abet.org/).

Courses

EET 1003 Introduction to Microcomputer Programming
Prerequisites: Consent of instructor.
Description: Programming a microcomputer using a spreadsheet and in BASIC. Application of algorithms to solve defined problems and an introduction to the numerical limitations of small machines. Previously offered as ECT 1003.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1101 Fundamentals of DC Circuits Lab
Prerequisites: Consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students who have taken a dc circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1114. May not be used for degree credit with EET 1134 or EET 1104.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

EET 1104 Fundamentals of Electricity
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or Consent of Instructor.
Description: Elementary principles of electricity covering basic electric units. Ohm's law, Kirchoff's law, circuit solutions, network solutions, magnetism, inductance and capacitance. Previously offered as ECT 1104. May not be used for degree credit with EET 1134 or EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1134 Fundamentals of DC Circuits
Prerequisites: Concurrent enrollment in MATH 2123 or MATH 2144 or consent of instructor.
Description: Elementary principles of dc electricity laboratory for Non-EET students covering basic electrical units, Ohm's Law, Kirchoff's Law, circuit solutions, network solutions, magnetism, inductance and capacitance. May be substituted for EET 1104 and grade of "B" or better and consent of the department. May not be used for degree credit with EET 1101.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1201 Fundamentals of AC Circuits Lab
Prerequisites: "C" or better in EET 1104 OR "C" or better in EET 1134 or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students who have taken an ac circuits course without a lab component. This is the same curriculum and lab experience that students would experience taking EET 1214. May not be used for degree credit with EET 1214 or EET 1244.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

EET 1214 Fundamentals of AC Circuits
Prerequisites: ("C" or better in EET 1104 OR "C" or better in EET 1134) AND ("C" or better in MATH 2123 OR "C" or better in MATH 2144) or consent of instructor.
Description: Elementary principles of ac electricity laboratory for Non-EET students covering basic electrical units, The use of network theorems and phasors, coupled circuits, resonance, filters and power will be studied. May be substituted for EET 1244 with grade of "B" or better and consent of the department. May not be used for degree credit with EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 1244 Circuit Analysis I
Prerequisites: ("C" or better in EET 1104 OR "B" or better in EET 1134) AND ("C" or better in MATH 2123 OR "C" or better in MATH 2144) OR consent of instructor.
Description: Analysis of AC electric circuits. The use of network theorems and phasors, coupled circuits, resonance, filters, and power. Course previously offered as ECT 1244. May not be used for degree credit with EET 1214 or EET 1201.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2303 Technical Programming
Prerequisites: Consent of instructor.
Description: Introduction to machine programming using industrial standard languages, emphasis on problems from science and technology. Course previously offered as ECT 2303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 2544 Pulse and Digital Techniques
Prerequisites: "C" or better in EET 1104 or "B" or better in EET 1134 OR ("C" or better in ENSC 2613 and ENSC 2411A) OR equivalent. Prerequisites may be taken concurrently.
Description: Electronic circuits used in digital control and computation. Pulse generation, Boolean algebra and logic circuits. Course previously offered as ECT 2544.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2633 Solid State Devices and Circuits I
Prerequisites: ("C" or better in EET 1244 OR "B" or better in EET 1214 OR ("C" or better in both ENSC 2613 AND ENSC 2411)) AND ("C" or better in MATH 2123 OR MATH 2144).
Description: Diodes, Circuit protection, wave shaping, rectifiers, load switching, and power supplies. Transistors and Op amps and their applications. Course previously offered as ECT 2635 and EET 2635.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 2643 Solid State Devices and Circuits II
Prerequisites: EET 2633.
Description: A continuation of EET 2633. Transistors and their applications - amplifiers. Op-amp circuits, comparators, instrument amplifiers, and filters and their analysis.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3005 Electronics Analysis I
Prerequisites: EET 1244 and EET 2544 and EET 2635.
Description: Extensive use of mathematics in analyzing discrete, linear device, linear systems and non-linear circuits. Development of the analytic skills necessary for upper-division work. The use of basic calculus in circuit analysis. Must obtain a "C" or better before admission to other 3000 level EET courses. Intended for transfer and returning students. Enrollment by adviser consent.
Credit hours: 5
Contact hours: Lecture: 5 Contact: 5
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3104 Elements of Electricity and Electronics
Prerequisites: MATH 1513.
Description: Essentials of electricity, controls, and electronics for non-majors. No credit for EET majors. Course previously offered as ECT 3104.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3113 Circuit Analysis II
Prerequisites: (EET 1244 with a grade of "C" or better OR EET 1214 with a grade of "B" or better AND EET 2635 OR EET 2633 with a grade of "C" or better AND MATH 2133 with a grade of "C" or better OR MATH 2153 with a grade of "C" or better) or (ENSC 2613 and ENSC 2411 with "C" or better).
Description: Application of elementary switching functions and LaPlace transforms to electronic circuit analysis. Circuit analysis in the S-plane, transfer functions and the application of circuit analysis software. Course previously offered as ECT 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3123 Project Design and Fabrication
Prerequisites: ("C" or better in EET 2544 AND ("C" or better in EET 2635 OR "C" or better in EET 2633)) OR ("C" or better in ENSC 2613 and ENSC 2411 AND (a "C" or better in EET 2635 OR EET 2633)) OR Instructor Approval.
Description: Methods of designing, analyzing and fabricating electronic circuits using standard software packages. Heat transfer characteristics and problem solutions are included. Course previously offered as ECT 3124 and EET 3124.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3253 Microprocessors I
Prerequisites: EET 2544.
Description: An introduction to microcontrollers and their uses in embedded applications. Topics include system architecture, assembly language, structured programming, memory systems, user I/O, timers, peripherals, etc. Course previously offered as ECT 3254 and EET 3254.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3263 Microprocessors II
Prerequisites: EET 2303 with a grade of "C" or better and ((EET 3254 or EET 3253) with a grade of "C" or better).
Description: A continuation of EET 3253. Programming and interfacing of microcontrollers in embedded application, including interrupts, EEPROM, serial programming, interfacing, power management, algorithms, stepper motor control. Course previously offered as ECT 3264 and EET 3264.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3303 Python Programming for Technology and Engineering
Prerequisites: MATH 2123 or MATH 2144 plus previous programming experience in any language.
Description: The Python programming language including syntax, collections, modules, object-oriented programming, functions, and graphical user interfaces with emphasis on applications in technology and engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3354 Communication and Signal Processing
Prerequisites: "C" or better in (EET 2635 or EET 2643) and "C" or better in EET 3423.
Description: Bandpass signaling principles and circuits. The Fourier transform; AM, SSB, FM, and PM signaling; binary modulated bandpass signaling (FSK and PSK); superheterodyne receiver; phase locked loop (PLL); modulators and mixers; frequency multiplication; special purpose IC's. Course previously offered as ECT 3354.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3363 Data Acquisition
Prerequisites: "C" or better in EET 2544 AND "C" or better in EET 2635 OR EET 2633.
Description: Methods used to convert physical variables to digital signals and vice versa. Signal conditioning, digital-to-analog converters, analog-to-digital converters, sample-and-hold circuits, sensors, and transducers. The use of computers in data acquisition and signal processing. Course previously offered as ECT 3363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3423 Applied Analysis for Technology
Prerequisites: MATH 2133 with a grade of "C" or better OR MATH 2153 with a grade of "C" or better.
Description: Applications of elements of matrix algebra, ordinary differential equations, Fourier series, and infinite series to problems in engineering technology. Previously offered as GENT 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3523 Advanced Logic Circuits
Prerequisites: EET 2544 with a grade of "C" or better.
Description: Computer-based design, simulation and implementation of digital/mixed-signal systems using programmable logic, field programmable gate arrays, ASICs and system-on-chip technology. Previously offered as EET 3524.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3533 Introduction to Telecommunications
Prerequisites: "C" or better in EET 2544 AND "C" or better in EET 2635 OR EET 2633.
Description: Introductory course to the field of telecommunications. Study of the various technologies and how the application of these technologies work together to form functioning systems and networks.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 3713 Introduction to Electric Power Technology I
Prerequisites: ("C" or better in EET 1244 OR "B" or better in EET 1214 AND ("C" or better in MATH 2133)) OR ("C" or better in ENSC 2613 AND ENSC 2411).
Description: Physical principles of electromagnetic and electromechanical energy conversion devices and their application to conventional transformers and rotating machines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3723 Introduction to Electric Power Technology II
Prerequisites: "C" or better in EET 3713.
Description: Physical principles of electromagnetic and electromechanical energy conversion devices and their application to conventional transformers and rotating machines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 3803 Fundamentals of Mechatronics
Prerequisites: Grade of “C” or better in EET 2635 OR Grade of "C" or better in EET 2633.
Description: Fundamentals of mechatronic systems and components. Different modelling approaches used for mechatronics systems, sensors and actuators, data acquisition and interfacing, signal conditioning, and PLC’s. Previously offered as GENT 3503. Same course as MET 3803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4050 Advanced Electronic Problems
Prerequisites: Junior standing and consent of head of department.
Description: Junior standing and consent of head of department. Special problems in the electronic area. Course previously offered as ECT 4050. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

EET 4314 Elements of Control
Prerequisites: "C" or better in EET 3113 AND "C" or better in EET 3363 AND "C" or better in EET 3423.
Description: Principles of analog and digital control, with emphasis on the analysis of feedback control systems in their various conceptual configurations. Application of feedback control theory to the analysis and design of present day circuits and systems. Use of circuit analysis software. Course previously offered as ECT 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4323 Applied Artificial Intelligence
Prerequisites: "C" or better in EET 3303 AND "C" or better in EET 4813 AND ("C" or better in STAT 4033 OR "C" or better in STAT 4033).
Description: The course will follow a project based learning approach to introduce students with the theoretical and implantation of artificial intelligence algorithms. Topics include supervised learning, unsupervised learning, and deep reinforcement learning.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4363 Digital Signal Processing
Prerequisites: "C" or better in EET 3354 AND "C" or better in EET 3363.
Description: Introduction to Digital Signal Process. Theoretical development of Fourier transforms, IIR and FIR filters. Significant Design and programming projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

EET 4514 Advanced Telecommunication Topics
Prerequisites: "C" or better in EET 3533.
Description: Study of data transmission techniques between digital electronic devices.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4654 Microwave Techniques
Prerequisites: "C" or better in EET 2635 OR EET 2633 AND "C" or better in EET 3354.
Description: Study of topics pertaining to VHF behavior of circuits and systems. Transmission line theory: wave equations, SWR, impedance calculations and transformations, and lossy lines. Extensive use of the Smith chart to solve transmission line problems. Introduction to Maxwell's equations, with emphasis on steady state. Wave propagation in rectangular waveguides. Introduction to antennas. Modeling of transistors at VHF, UHF, and microwave frequencies. Design and analysis of transistor amplifiers at VHF using y and s parameters. Designing LC impedance matching networks. Previously offered as ECT 4654.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4803 Mechatronic System Design
Prerequisites: Grade of "C" or better in EET 3423 and EET 3803 (can be concurrent enrollment in EET 3423 with instructor approval).
Description: Modelling of mechanical, electrical, and hydraulic components. Feedback control systems, electro-hydraulic drives, electrical drives, and microcontroller programming. Previously offered as GENT 4503. Same course as MET 4803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4833 Industrial Project Design I
Prerequisites: ("C" or better in EET 3123 or EET 3124 AND ("C" or better in EET 3363 OR concurrently enrolled in EET 3363 with instructor approval)) OR ("C" or better in EET 3363 AND 10 credit hours of upper-division EET courses).
Description: Course mirrors the design process in industry. Topics covered are design team formation, identify objectives, define design specifications, write specifications, create a state of work and Gantt chart, create a project budget, perform a preliminary design review, design prototype. Previously offered as EET 4832 and ECT 4832.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4843 Industrial Project Design II
Prerequisites: "C" or better in EET 4833 OR a "C" or better in ENGR 4403 OR ENGR 4404.
Description: Student continues in the project steps of Change Board Review, Critical Design Review, developing & writing test specs., product fabrication and testing, formal technical report submission and outcomes assessment exam. May be substituted with ENGR 4403 OR ENGR 4404.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

EET 4903 Mechatronics of Autonomous Systems
Prerequisites: "C" or better in EET 3803 OR "C" or better in MET 3803.
Description: The course will follow a project based learning approach to introduce students with the mechatronics of autonomous systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 3373 Programmable Logic Controller Fundamentals
Prerequisites: "C" or better in (EET 2544 or MERO 2544).
Description: The course will introduce students with fundamentals of programming logic controllers, sensors and actuaors interfacing and control using Ladder logic programming. Previously offered as EET 3373.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 4213 Industrial Robots
Prerequisites: ("C" or better in ENSC 2123 or MET 3003) and (MATH 3263 or EET 3423).
Description: This is an introductory course on robotics. The course introduces technology students to the dynamics and kinematics of industrial robots.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 4833 Senior Design
Prerequisites: "C" or better in EET 2633 and (EET 3803 or MET 3803), and MET 4003.
Description: The course introduces students to the industrial design process in the area of mechatronics and robotics. The students will work in teams to engage in the design and development of industrial projects.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

MERO 4843 Senior Design II
Prerequisites: "C" or better in MERO 4833.
Description: This course is the second semester of the Senior Design Course. The students will be introduced to the industrial design process in the area of mechatronics and robotics.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Mater Mero Manuf Engineering

MERO 5000 Thesis Research
Prerequisites: Consent of instructor.
Description: Methods used in research and thesis writing. Same course as FSEP 5000. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MERO 5060 Emerging Topics in Engineering Technology
Prerequisites: Consent of instructor.
Description: Advanced and emerging topics normally not included in existing MSET program. Repeat credit may be earned with different course subtitles assigned. Same course as FSEP 5060. Offered for fixed credit, 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5070 Directed Studies
Prerequisites: Consent of instructor.
Description: Individual report topics in processes, equipment, experiments, literature search, theory, computer use or combinations or these. Offered for variable credit, 2-4 credit hours, maximum of 4 credit hours. Same as FSEP 5990.
Credit hours: 2-4
Contact hours: Contact: 2-4 Other: 2-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MERO 5113 Mechatronic Systems I
Prerequisites: Consent of instructor.
Description: Applications of mechatronics, basic building blocks of mechatronics systems, electronic components, mechanical components, interface between electronic and mechanical components, and considerations of mechatronics system design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5123 Mechatronic Systems II
Prerequisites: MERO 5113 or equivalent.
Description: Modeling of mechanical, electrical, and hydraulic components and robotic manipulators. Mechatronic control systems design, electro-hydraulic drives, electrical drives, robotic manipulator and intelligent control design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5133 Mechatronic System Hardware and Software Integration
Prerequisites: MERO 5113.
Description: This course offers a comprehensive foundation for computer-based analysis of signals, digital and analog communication to support mechatronic application and troubleshooting. Various computing tools for mechatronic systems development such as MATLAB, LABVIEW, and ROS, will be introduced with a focus on software and hardware integration.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5213 Introduction to Robot Dynamics and Kinematics
Prerequisites: MERO 5113.
Description: This is an introductory course on robotics. The course introduces technology students with the modeling of robotics manulators. Dynamics and kinematics of industrial robots. Sensing and actuation systems used in the industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5303 Feedback Control Systems for Mechatronic Systems
Prerequisites: Graduate standing or instructor permission.
Description: This course introduces mechatronic system modeling, feedback control, time and frequency domain analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5313 Linear Control Systems for Mechatronics
Prerequisites: MERO 5113.
Description: The course is an application specific course. Applications of feedback control in mechatronics, mathematical models of mechatronics systems and components, time-domain analysis, and stability, and state-variable models of feedback systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5323 Intelligent Control of Mechatronic Systems
Prerequisites: MERO 5123.
Description: The course introduces students with applications machine intelligence for control of mechatronic systems. Topics covered are neural network control, fuzzy logic control, and other evolutionary control approaches in mechatronics. The course will also introduce machine vision and image processing for mechatronic applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5333 Learning-Based Control for Mechatronics and Robotics
Prerequisites: Graduate standing or instructor permission.
Description: The goal of this course is to give the students an introduction to a variety of intelligent control techniques and their applications in mechatronics and robotics systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5413 Robotic Underwater Vehicles
Prerequisites: MERO 5213 or consent of instructor.
Description: Analyze the current design of a robotic underwater vehicle and contribute a substantial design improvement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5423 Engineering Acoustics
Prerequisites: Graduate standing or consent of instructor.
Description: A first course in engineering acoustics dealing with the nature of sound. A mathematical basis for the analysis of sound is progressively developed beginning with first principles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5433 Industrial Noise Control
Prerequisites: MERO 5423 or MAE 5083.
Description: Design and analysis of industrial noise creation and the methods of attenuation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5513 Electrohydraulics
Prerequisites: Graduate standing, department permission required or consent of instructor.
Description: Proportional electrohydraulic control valves, servo valves, pressure transducers, position sensors, motion control of hydraulic cylinders, synchronization of two cylinders, and control of press circuits.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 5523 Electropneumatics
Prerequisites: Graduate standing, department permission required or consent of instructor.
Description: Electronic components for pneumatic systems, sensor switches, ladder logic diagram, programmable logic controller, and sequence control.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MERO 5613 Smart Manufacturing for Mechatronics
Description: The course introduces the basic concepts, applications, and current advancements of SMART manufacturing in process industries. This course also shows overview of new technologies, such as Industry 4.0, Industrial Internet, manufacturing based on cyber-physical system (CPS), cloud computing, Internet of Things (IoT), big data analytics, artificial intelligence (AI), and digital twins, etc. Digital twin (DT) is introduced as a pragmatic way for the cyber-physical fusion. It helps to develop a smarter manufacturing system with higher efficiency and reliability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5633 Multiphysics Computational Modeling and Simulation
Prerequisites: Graduate standing or consent of instructor.
Description: The course will introduce the basic concepts of computation through modeling and simulation that are increasingly being used by designers, architects, planners, and engineers to shorten design cycles, innovate new products, and evaluate designs and simulate the impacts of alternative approaches. Students will use COMSOL® Multiphysics, a commercially available finite-element modeling software, to explore a range of programming and modeling concepts while acquiring those skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5713 Advanced CAD for Electro-Mechanical Systems
Description: Advanced computer-aided design methodologies and processes for mechatronic system. Design methodologies on electronic, mechanical components, and whole system will be taught using state-of-the-art technologies and modules in CAD system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5723 Mechanism Design with CAD
Prerequisites: Consent of instructor.
Description: Mechanism design of robotic and mechatronic components and systems. Kinematic and kinetic studies using analysis module in a CAD program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MERO 5733 Advanced Vibration for Electro-Mechanical Systems
Prerequisites: Consent of instructor.
Description: Analysis, modeling and control of electro-mechanical systems vibrations with an emphasis on practical applications. Mechanical system design methods for noise and vibration mitigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 1121 Technical Graphics
Prerequisites: A grade of "C" or better in ENGR 1332 or ENGR 1322.
Description: Visualization of 3-D objects, sketching, manual drafting of engineering drawings to ANSI standards, interpreting typical industrial drawings.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 1123 Technical Drawing and Basic CAD
Description: Sketching, manual drafting and CAD generation of engineering drawings to ANSI standards. Interpreting typical industrial drawings. Students with two years high school or one year practical ANSI drafting/CAD may substitute an advanced course in mechanical engineering technology with consent of their advisers. Previously offered as GENT 1153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2103 Industrial Materials
Prerequisites: CHEM 1314 or CHEM 1215 or CHEM 1414.
Description: A survey of the properties, characteristics and applications of metals, polymers, ceramics and other industrial materials. Terminology, concepts and principles involved in material selection, specification and processing. Laboratory activities include data collection and report generation, determination of material properties, and evaluation of material characteristics. Previously offered as GENT 1103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2223 Geometric Dimensioning and Tolerancing with Computer-Aided Design
Prerequisites: A grade of “C” or better in (GENT 1153 or MET 1123) or a grade of “C” or better in (ENGR 1332 or equivalent) and MET 1121 (can be concurrent enrollment in MET 1121).
Description: Theory and application of Geometric Dimensioning and Tolerancing (GD&T) technique. Creation and analysis of tolerances for manufacturing with advanced computer-aided design (CAD) and engineering drawings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 2313 Fundamentals of Hydraulic Fluid Power
Prerequisites: A grade of "C" or better in ENSC 2113 or GENT 2323.
Description: Basic fluid power concepts. Standard hydraulic symbols, component design and application, fluid power system considerations, design, and operation. Previously offered as MPT 2313.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3003 Dynamics
Prerequisites: A grade of "C" or better in GENT 2323 or ENSC 2113.
Description: Plane motion of particles and rigid bodies. Force-acceleration, work-energy, and impulse-momentum principles. Graphical analysis, mechanisms and vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3113 Basic Instrumentation
Prerequisites: A grade of "C" or better in MATH 2123 or MATH 2144, and GENT 3323 or ENSC 2143, and ENGR 2421.
Description: Data analysis. Theory, operational characteristics and application of transducers for measurement of strain, force, velocity, acceleration, displacement, time, frequency, temperature, pressure. Previously offered as MPT 3114.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3313 Applied Fluid Mechanics
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144), (PHYS 1114 or PHYS 2014), and (GENT 2323 or ENSC 2113).
Description: Practical analysis of fluid systems including static forces, the Bernoulli and general energy equations, laminar and turbulent flows, measurements of flow and pressure, lift and drag, pumps, and fans. Previously offered as MPT 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3343 Metallurgy and Polymers
Prerequisites: A grade of "C" or better in (CHEM 1215 or CHEM 1314 or CHEM 1414 or CHEM 1515).
Description: Provides an overview of common ferrous and nonferrous metals, metal crystal structures, grain development in metal, heat treating practices, and how these aspects impact a material's characteristics. Polymer properties, an introduction to thermoplastics and thermosets, physical and mechanical properties, polymer structure and arrangement, manufacturing methods and common additives. Previously offered as MFGT 3343.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 0 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3433 Basic Thermodynamics
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144) and (PHYS 1114 or PHYS 2014).
Description: Basic scientific principles of energy and the behavior of substances as related to engines and systems. Gas laws, vapor cycles, and power cycles. Previously offered as MPT 3433 and GENT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3453 Heat Transfer
Prerequisites: A grade of "C" or better in (MATH 2144 or MATH 2123 and (PHYS 2014 or PHYS 1114).
Description: Conduction, convection, radiation, condensation, and boiling heat transfer. Heat exchangers. Prediction of heat transfer rates. Retardation and enhancement of heat transfer. Course previously offered as MPT 4433 and GENT 4433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 3543 Manufacturing Processes
Prerequisites: Grade of "C" or better in (MET 1123 or ENG 1332) and (MET 3343 or ENSC 3313).
Description: Manufacturing processes used to transform new materials including metals and non-metals into finished goods. Traditional and nontraditional manufacturing processes. Introduction to CAD/CAM. Basic process selection. Meteorology and measurement fundamentals. Previously offered as GENT 1223 and MET 1213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 3803 Fundamentals of Mechatronics
Prerequisites: Grade of "C" or better in EET 3104 or EET 2635.
Description: Fundamentals of mechatronic systems and components. Different modelling approaches used for mechatronics systems, sensors and actuators, data acquisition and interfacing, signal conditioning, and PLCs. Previously offered as GENT 3503. Same course as EET 3803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4003 Machine Elements
Prerequisites: A grade of "C" or better in (MATH 2133 or MATH 2153) and (GENT 3323 or ENSC 2143).
Description: Applications of statics and strength to the design of machine components. Problems of choosing materials, impact and fatigue loading. May not be used for degree credit with MET 4003 or BAE 4224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4023 Advanced Mechanical Computer-Aided Design
Prerequisites: A grade of "C" or better in MET 1123 or ENGR 1332 or equivalent.
Description: Computer-aided design methodologies and processes. State-of-the-art technologies and methodologies in 3D modeling and design processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4033 Applied Vibration and Acoustics
Prerequisites: A grade of "C" or better in GENT 3323 or ENSC 2143.
Description: Free and forced vibration of mechanical systems with an emphasis on practical applications. Introduction to sound wave generation and propagation. Mechanical system design methods for noise and vibration mitigation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4050 Advanced Mechanical Design
Prerequisites: Junior standing and consent of instructor.
Description: Special problems in mechanical engineering technology. Previously offered as MFGT 4050 and MPT 4050. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mater Mero Manuf Engineering

MET 4103 Senior Design I
Prerequisites: Grade of "C" or better in (MET 1123 or MET 1121) and ENSC 2143 and Senior Standing.
Description: First part of a two semester sequence for the MET capstone project. Focuses on finding and beginning a practical engineering design project. Includes selected topics in engineering design, project management, ethics, and intellectual property.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4113 Practical Computational Fluid Dynamics
Prerequisites: A grade of "C" or better in MET 3313 or ENSC 3233 or MAE 3333.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Students will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. May not be used for degree credit with MET 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4123 Senior Design II
Prerequisites: A grade of "C" or better in MET 4103 and ENGL 3323. Must be taken in the immediately subsequent semester after completing MET 4103.
Description: Second part of a two semester sequence for the MET capstone project. Finishes work on the practical engineering design project begun in MET 4103. Includes selected topics in engineering design, project management, ethics, and intellectual property.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4133 Interdisciplinary Design I
Prerequisites: A grade of "C" or better in (MET 1223 or MET 2223) and MET 4003 and permission of the instructor.
Description: First part of an interdisciplinary capstone project for engineering technology seniors. Conduct mechanical design, prototype development, and project management on practical engineering design project. Same course as MET 4103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4143 Interdisciplinary Design II
Prerequisites: A grade of "C" or better in (MET 1223 or MET 2223) and MET 4003 and permission of the instructor.
Description: Second part of an interdisciplinary capstone project for engineering technology seniors. Conduct mechanical design, prototype development, and project management on practical engineering design project. Same course as MET 4123.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4173 Additive Manufacturing: Materials, Methods and Applications
Prerequisites: Junior or higher standing.
Description: Theory and practice of additive manufacturing, materials and their applications in various fields. Discuss their applications in product development, data visualization, rapid prototyping, and specialized manufacturing, with special emphasis on direct digital manufacturing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4203 Finite Element Methods
Prerequisites: A grade of "C" or better in GENT 3323 or ENSC 2143.
Description: Application of Finite Element Methods to machine component design. Problems involving stress, strain, temperature and vibration will be solved using state of the art Finite Element Software. May not be used for degree credit with MET 5203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4223 Geometric Dimensioning and Tolerancing
Prerequisites: A grade of “C” or better in MET 1123 or ENGR 1332 or equivalent.
Description: Theory and Application of Geometric Dimensioning and Tolerancing (GD&T) technique based on ASME Y14.5. Creation, analysis, and inspection of tolerances for manufacturing. Previously offered as MET 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4713 Internal Ballistics
Prerequisites: A grade of "C" or better in (ENSC 2123 or MET 3003) and ENSC 2143 and (ENSC 3233 or MET 3313).
Description: This course is about launching projectiles. Course topics include projectile launching systems, solid propellant combustion, design and manufacturing of projectiles and ammunition, internal ballistic models, design and manufacturing of the barrel, structural dynamics of the barrel, dynamics of guns, firing mechanisms and fire-control systems, SAAMI Standards, and project. May not be used for degree credit with MET 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4723 External Ballistics
Prerequisites: A grade of "C" or better in (ENSC 2123 or MET 3003) and (ENSC 3233 or MAE 3333 or MET 3313).
Description: This course focuses on the motion of a projectile in the air. Course topics include vacuum trajectory, aiming principles and devices, aerodynamic forces and moments, ballistic coefficient, flat-tire point-mass trajectory, weather, Coriolis effects, gyroscopic effect, point-mass trajectory, pitching and yawing motion, measurement of projectile speed and environmental conditions, long-range shooting, and project. May not be used for degree credit with MET 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4733 Terminal Ballistics and Armor
Prerequisites: Grade of "C" or better in (MET 3003 or ENSC 2123) and permission of the instructor.
Description: Practical applications of dynamics theories to the mechanical behavior of projectiles and targets at impact. Structural and body armor system design, test, and analyses. May not be used for degree credit with MET 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4803 Mechatronic System Design
Prerequisites: Grade of “C” or better in GENT 3123 and MET 3803 (can be concurrent enrollment in GENT 3123).
Description: Modelling of mechanical, electrical, and hydraulic components. Feedback control systems, electro-hydraulic drives, electrical drives, and microcontroller programming. Previously offered as GENT 4503. Same course as EET 4803.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4883 Tool Design
Prerequisites: A grade of "C" or better in MET 2213 and MET 3343.
Description: Basic design and development of special tools for processing or manufacturing engineering materials. Design and specification and inspection tools using appropriate techniques of engineering graphics and analysis. Previously offered as MFGT 4883.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mater Mero Manuf Engineering

MET 4953 Industrial Assessment and Improvement
Prerequisites: Junior or higher standing.
Description: Plant assessment and improvement-based concepts, strategies, and tools for manufacturing operations. Emphasis is on small to medium-sized manufacturing operations. Issues include energy, water, waste, quality, and productivity analysis across the organization from a systems perspective. Justification of improvement projects and measurement of results. May not be used for degree credit with IEM 4953 or IEM 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 4993 Mechanical Engineering Technology Practice
Prerequisites: Junior standing and consent of department head.
Description: Supervised industrial experience in mechanical engineering technology practice with minimal continual duration of eight weeks. Comprehensive journal, written report, and oral presentation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5113 Practical Computational Fluid Dynamics
Prerequisites: Graduate standing.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Students will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. May not be used for degree credit with MET 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5203 Finite Element Methods
Description: Application of Finite Element Methods to machine component design. Problems involving stress, strain, temperature and vibration will be solved using state of the art Finite Element Software. May not be used for degree credit with MET 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5713 Internal Ballistics
Prerequisites: Graduate standing.
Description: This course is about launching projectiles. Course topics include projectile launching systems, solid propellant combustion, design and manufacturing of projectiles and ammunition, internal ballistic models, design and manufacturing of the barrel, structural dynamics of the barrel, dynamics of guns, firing mechanisms and fire-control systems, SAAMI Standards, and project. May not be used for degree credit with MET 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5723 External Ballistics
Prerequisites: Graduate standing.
Description: This course focuses on the motion of a projectile in the air. Course topics include the vacuum trajectory, aiming principles and devices, aerodynamic forces and moments, ballistic coefficient, flat-tire point-mass trajectory, weather, Coriolis effects, gyroscopic effect, point-mass trajectory, pitching and yawing motion, measurement of projectile speed and environmental conditions, long-range shooting, and project. May not be used for degree credit with MET 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

MET 5733 Terminal Ballistics and Armor
Prerequisites: Graduate standing.
Description: Practical applications of dynamics theories to the mechanical behavior of projectiles and targets at impact. Structural and body armor system design, test, and analyses. May not be used for degree credit with MET 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mater Mero Manuf Engineering

Undergraduate Programs

- Electrical Engineering Technology, BSET (p. 2406)
- Electrical Engineering Technology: Computer, BSET (p. 2408)
- Mechanical Engineering Technology, BSET (p. 2410)
- Mechatronics and Robotics, BS (p. 2414)

Graduate Programs

The School of Materials, Mechatronics and Manufacturing Engineering offers programs leading to the Master of Science and Doctor of Philosophy. A program of independent study and research on a project under the direction of a member of the Graduate Faculty will be satisfactorily completed by all graduate students. For the Master of Science candidate, the project may result in a thesis. For the Doctor of Philosophy candidate, the project results in a dissertation.

Four research areas of strategic importance have been identified at the Helmerich Advanced Technology Research Center (HRC) at OSU by industry leaders in and around Tulsa. These include: Materials for Energy Technologies, Bio-Materials for Medical Technologies, Advanced Materials for Aerospace, and Materials for Electronics and Control

Technologies. All areas fall under the broad umbrella of the School of Materials, Mechatronics and Manufacturing Engineering

Admission Requirements

Admission to either the Master of Science or Doctor of Philosophy degree program requires graduation from a materials science and engineering or related curriculum approved by the ABET or a recognized equivalent from any international program.

Students with related undergraduate degrees, such as chemistry, physics, engineering physics, applied physics, etc., can be admitted conditionally, subject to completing prescribed Materials Science and Engineering program core courses. Admission is competitive based on undergraduate GPA, GRE and TOEFL (for international students), statement of interests, experience and recommendations.

The Master of Science Degree

The **Master of Science in Materials Science Engineering (MSE)** has both thesis and creative component (non-thesis) options. The thesis option requires a total of 30 credit hours, which includes 24 hours of formal coursework (regularly scheduled classes, not independent study) and 6 hours of a thesis. The non-thesis option or creative component requires a total of 35 credit hours, which includes 33 hours of formal coursework (regularly scheduled classes, not independent study) and 2 hours of a creative component or project. The main difference between the two options is that in the thesis option, students conduct independent research, while in the creative component option, students conduct critical review of the literature on an advanced topic of interest to the MSE program. Both options require a professional report or thesis and an oral presentation. Students take 15 hours of core courses (required) with the remainder of the hours being MSE elective courses or their equivalent (to be approved by MSE graduate coordinator and the thesis advisor or has been considered as an equivalent MSE course). Students must complete no less than 21 hours of MSE 5000- and 6000-level courses through Oklahoma State University. For both options the courses taken must include:

Code	Title	Hours
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
MSE 5010	Materials Science and Engineering Seminar for Masters Students	0

The **Master of Science in Engineering Technology (MSET)** degree in **Mechatronics and Robotics (MERO)** will provide students with an interdisciplinary applied engineering education through coursework, project, and thesis work. Students will learn fundamental and applied concepts of real world mechatronic and robotic systems including interface theory, sensing and actuation systems, hardware and software integration, modelling and control. Our faculty members have extensive industry experience. Students will have an option to specialize in one or more areas including control systems, artificial intelligence, autonomous vehicles, advanced manufacturing, and soft-robotics. All courses will focus on applied engineering via hands-on learning.

The Doctor of Philosophy Degree

The general credit requirement is a minimum of 90 credit hours beyond the BS degree, including at least 36 hours of credit for research and at least 30 hours of class work. It is expected that the courses must include:

Code	Title	Hours
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 6010	Materials Science and Engineering Seminar for PhD Students	0

Students are responsible for consultation with their doctoral advisory committee in preparing the plan of study. Furthermore, students have to pass the PhD qualifying exam and the dissertation proposal defense to become eligible for candidacy for the PhD Degree, successfully conduct independent research for the dissertation, and pass the final dissertation defense in order to qualify for the PhD degree. More details can be found in the MSE Graduate Student Handbook.

Minors

- Mechatronic Engineering Technology for EET Students (EETM), Minor (p. 2412)
- Mechatronic Engineering Technology for MET Students (METM), Minor (p. 2413)

Faculty

James E. Smay, PhD—MMME School Head and Colcord Chair
Associate Dean, Professor and Helmerich Family Chair: Raman P. Singh, PhD
Regents Professor and NAE Member: Raj N. Singh, PhD
Professor and Varnadow Chair: Ranji Vaidyanathan, PhD
Professors: Aaron Alexander, PhD; Richard A. Beier, PhD, PE (emeritus); Youn Chang, PhD, PE (emeritus)
Associate Professors: Pankaj Sarin, PhD; Do Young Kim, PhD; Hitesh Vora, PhD; Imad Abouzahr, PhD, PE; Brian Norton, MS; Warren L. Lewis, MS; Kenneth Belanus, MSEM (emeritus)
Assistant Professors: Yafeng Wang, PhD; Ellis C. Nuckolls, MS, PE
Professor of Practice: Jahan Bayat, PhD
Teaching Associate Professor: Laura Emerson, MS

Electrical Engineering Technology, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History (or)	
HIST 1483	American History to 1865 (H) (or)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
STAT 4013	Statistical Methods I (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 2014	University Physics I (LN)	4
Select 4 hours of any course designated (LN)		4
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Electronics		
ENGR 2421	Engineering Data Acquisition Controls Lab	1
ENSC 2613	Introduction to Electrical Science	3
ENSC 2411	Electrical Science Lab	1
EET 2303	Technical Programming	3
EET 2544	Pulse and Digital Techniques	4
EET 2633	Solid State Devices and Circuits I	3
EET 2643	Solid State Devices and Circuits II	3
Hours Subtotal		**19**
Major Requirements		
EET 3113	Circuit Analysis II	3
EET 3123	Project Design and Fabrication	3
EET 3253	Microprocessors I	3
EET 3263	Microprocessors II	3
EET 3354	Communication and Signal Processing	4
EET 3363	Data Acquisition	3
EET 3303	Python Programming for Technology and Engineering	3
EET 3523	Advanced Logic Circuits	3
EET 3533	Introduction to Telecommunications	3
EET 4314	Elements of Control	4
EET 4363	Digital Signal Processing	3
EET 4654	Microwave Techniques	4
EET 4833	Industrial Project Design I	3
EET 4843	Industrial Project Design II	3
EET 3423	Applied Analysis for Technology (or GENT 3123)	3
MGMT 3013	Fundamentals of Management (S)	3
or IEM 3503	Engineering Economic Analysis	
or IEM 3513	Economic Decision Analysis	
Select 8 hours from any courses in CEAT, or with a prefix MATH or CS, or designated (N).		8
Hours Subtotal		**59**
Total Hours		**120**

Graduation Requirements

1. A minimum Technical GPA of 2.00 is required. The Technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program or substitutions for these courses.
2. A minimum grade of "C" is required for all EET coursework.
3. Students may not enter into a subsequent EET course that has a prerequisite if the minimum "C" grade is not met in the prerequisite without consent of instructor.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Electrical Engineering Technology: Computer, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History (or)	
HIST 1483	American History to 1865 (H) (or)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
STAT 4013	Statistical Methods I (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
PHYS 2014	University Physics I (LN)	4
Select 4 hours of any course designated (LN)		4
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**42**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Electronics		
ENGR 2421	Engineering Data Acquisition Controls Lab	1
ENSC 2613	Introduction to Electrical Science	3
ENSC 2411	Electrical Science Lab	1
CS 1113	Computer Science I (Q)	3
EET 2303	Technical Programming	3
EET 2544	Pulse and Digital Techniques	4
EET 2633	Solid State Devices and Circuits I	3
EET 2643	Solid State Devices and Circuits II	3
Hours Subtotal		**22**
Major Requirements		
EET 3113	Circuit Analysis II	3
EET 3123	Project Design and Fabrication	3
EET 3253	Microprocessors I	3
EET 3263	Microprocessors II	3
EET 3303	Python Programming for Technology and Engineering	3
EET 3354	Communication and Signal Processing	4
EET 3363	Data Acquisition	3
EET 3523	Advanced Logic Circuits	3
EET 3533	Introduction to Telecommunications	3
EET 4363	Digital Signal Processing	3
EET 4833	Industrial Project Design I	3
EET 4843	Industrial Project Design II	3
EET 3423	Applied Analysis for Technology (or GENT 3123)	3
MGMT 3013	Fundamentals of Management (S)	3
or IEM 3503	Engineering Economic Analysis	
or IEM 3513	Economic Decision Analysis	
Select 4 hours from any course in CEAT, any course with a MATH or CS prefix, or any designated (N)		4
CS 2133	Computer Science II	3
Select 6 hours of upper-division CS		6
Hours Subtotal		**56**
Total Hours		**120**

Graduation Requirements

1. A minimum technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program or substitution for these courses.
2. A minimum grade of "C" is required for all EET coursework.
3. Students may not enter into a subsequent EET course that has a prerequisite if the minimum "C" grade is not met in the prerequisite without consent of instructor.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical Engineering Technology, BSET

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing [1]	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Select one of the following:		4
CHEM 1215	Chemical Principles I (LN)	
CHEM 1314	Chemistry I (LN)	
CHEM 1414	General Chemistry for Engineers (LN)	
PHYS 2014	University Physics I (LN)	4
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Specialty		
MET 2313	Fundamentals of Hydraulic Fluid Power	3
MET 3543	Manufacturing Processes [3]	3
MET 4223	Geometric Dimensioning and Tolerancing	3
or MET 2223	Geometric Dimensioning and Tolerancing with Computer-Aided Design	
Related Specialty		
ENGR 1412	Introductory Engineering Computer Programming	2
or EET 3303	Python Programming for Technology and Engineering	
ENSC 2113	Statics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 2411	Electrical Science Lab	1
Select three hours from the following:		3
MET 1123	Technical Drawing and Basic CAD [4]	
OR		
ENGR 1322 & MET 1121	Engineering Design with CAD and Technical Graphics	
OR		
ENGR 1332 & MET 1121	Engineering Design with CAD for MAE and Technical Graphics	
ENSC 2141	Strength of Materials Lab	1
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3311	Material Science Lab	1
ENSC 3431	Thermodynamics and Heat Transfer Lab	1
ENGR 2421	Engineering Data Acquisition Controls Lab	1
Hours Subtotal		**27**
Major Requirements		
ENSC 2143	Strength of Materials	3
or GENT 3323	Strength of Materials	
MET 3433	Basic Thermodynamics [5]	3
or ENSC 2213	Thermodynamics	
MET 3453	Heat Transfer [6]	3
MET 3003	Dynamics	3
or ENSC 2123	Elementary Dynamics	
MET 3113	Basic Instrumentation	3
MET 3313	Applied Fluid Mechanics	3
MET 3343	Metallurgy and Polymers	3
MET 4003	Machine Elements	3
MET 4103	Senior Design I	3
or MET 4133	Interdisciplinary Design I	
MET 4123	Senior Design II	3
or MET 4143	Interdisciplinary Design II	
IEM 3503	Engineering Economic Analysis	3
or IEM 3513	Economic Decision Analysis	
Select 9 hours of the following:		9
MET 3803	Fundamentals of Mechatronics	
MET 4023	Advanced Mechanical Computer-Aided Design	
MET 4033	Applied Vibration and Acoustics	
MET 4050	Advanced Mechanical Design	
MET 4113	Practical Computational Fluid Dynamics	

MET 4203	Finite Element Methods	
MET 4173	Additive Manufacturing: Materials, Methods and Applications	
MET 4713	Internal Ballistics	
MET 4723	External Ballistics	
MET 4733	Terminal Ballistics and Armor	
MET 4803	Mechatronic System Design	
MET 4993	Mechanical Engineering Technology Practice	
MET 4953	Industrial Assessment and Improvement	
Hours Subtotal		**42**
Electives		
A total of 12 credit hours from the following with at least 3 being upper-division hours: MET 4993 Mechanical Engineering Technology Practice, Accounting, Astronomy, Biology, Chemistry, Computer Science, Engineering, Engineering Technology, Entrepreneurship and Emerging Enterprise, Finance, Geology, Legal Studies in Business, Management, Marketing, Mathematics, Physics and Statistics. [7]		12
Hours Subtotal		**12**
Total Hours		**121**

1

If B or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (p. 1004)).

2

MET 1223 also permitted.

3

MET 1213 or GENT 1223 also permitted.

4

GENT 1153 also permitted.

5

GENT 3433 is also permitted.

6

MET 4433 or GENT 4433 is also permitted.

7

MATH 1513 can be taken here if a student needs to take MATH 1513 as a prerequisite for MATH 1813.

Graduation Requirements

1. A minimum average Technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A grade of 'C' or better is required in all courses with an analytical or natural science designation or engineering or engineering technology prefix.
3. Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made so long as the changes do not delay graduation or result in semester hours being added.
4. The minimum requirements for the Mechanical Engineering Technology degree is 121. In cases where two courses can meet a requirement and they have differing credit hours, the lower credit hour course is typically recommended. The alternatives are largely listed to facilitate transfer into the MET degree from other programs.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechatronic Engineering Technology for EET Students (EETM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
MET 1123	Technical Drawing and Basic CAD	3
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
MET 3003	Dynamics	3
or ENSC 2123	Elementary Dynamics	
MET 3803	Fundamentals of Mechatronics	3
Total Hours		**15**

Additional Requirements

- 2.0 overall GPA in courses submitted for the minor
- Grade of C or better in each course submitted for the minor

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Mechatronic Engineering Technology for MET Students (METM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
EET 3303	Python Programming for Technology and Engineering	3
EET 2544	Pulse and Digital Techniques	4
EET 2633	Solid State Devices and Circuits I	3
MET 3803	Fundamentals of Mechatronics [1]	3
MERO 3373	Programmable Logic Controller Fundamentals	3
Total Hours		**16**

1

This course is the same as EET 3803.

Additional Requirements

- 2.0 overall GPA in courses submitted for the minor
- Grade of C or better in each course submitted for the minor

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Mechatronics and Robotics, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum average technical grade-point-average: 2.0
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage and Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 2014	University Physics I (LN)	4
PHYS 2114	University Physics II (LN)	4
CHEM 1314	Chemistry I (LN)	4
or CHEM 1414	General Chemistry for Engineers (LN)	
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [1]	1
MET 1123	Technical Drawing and Basic CAD	3
ENSC 2113	Statics	3
ENSC 2123	Elementary Dynamics	3
or MET 3003	Dynamics	
ENSC 2141	Strength of Materials Lab	1
ENSC 2143	Strength of Materials	3
ENSC 2411	Electrical Science Lab	1
ENGR 2421	Engineering Data Acquisition Controls Lab	1
ENSC 2613	Introduction to Electrical Science	3
EET 2544	Pulse and Digital Techniques	4
EET 2633	Solid State Devices and Circuits I	3
MET 2313	Fundamentals of Hydraulic Fluid Power	3
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Hours Subtotal		**35**
Major Requirements		
IEM 3503	Engineering Economic Analysis	3
MATH 3013	Linear Algebra (Q)	3
MATH 3583	Introduction to Mathematical Modeling	3
EET 3303	Python Programming for Technology and Engineering	3
EET 4314	Elements of Control	4
MET 3803	Fundamentals of Mechatronics	3
MET 4223	Geometric Dimensioning and Tolerancing	3
MERO 3373	Programmable Logic Controller Fundamentals	3
MERO 4213	Industrial Robots	3
MERO 4833	Senior Design	3
MERO-related specialty [2]		9
Controlled Electives [3]		3
Hours Subtotal		**43**
Total Hours		**121**

1

Minimum grade of "C".

2

MERO Related Specialty 12 Hours:
EET Related Specialty: EET3123, EET 3423, EET 4803, EET 3253, EET 3003, ECEN 3513, 3613, 3723, 4503, EET 4314, EET 4654, EET 4903.
MET Related Specialty: MET 3343, MET 3353, MET 3413, MET 3423, MET 3433, MET 3453, MET 3543, MET 3573, MET 4003, MET 4023, MET 4033, MET 4050 MET 4113, MET 4173, MET 4203, MET 4303, MET 4313, MET 4713, MET 4723, MET 4733.
Other Related Specialty: IEM 3513, IEM 3013, ENSC 2213, ENSC 3233, ENSC 3313, MATH 3613, MATH 4263, MATH 4343, MATH 4513, MATH 4553, STAT 4033.

3

A total of 3 credit hours from the following: Accounting, Astronomy, Biology, Chemistry, Computer Science, Engineering, Engineering Technology, Entrepreneurship and Emerging Enterprise, Finance, Geology, Legal Studies in Business, Management, Marketing, Mathematics, Physics and Statistics.

Additional Requirements

- A grade of "C" or better is required in all courses with an analytical or natural science designation or engineering or engineering technology prefix.

- A grade of "C" or better is required for courses with the prefix EET/MET/MERO, and any course in physics and mathematics that is required in subsequent courses.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical and Aerospace Engineering

No other professions unleash the spirit of innovation like Mechanical Engineering and Aerospace Engineering. From research to real-world applications, mechanical and aerospace engineers discover how to improve lives by creating bold new solutions that connect science to life in unexpected, forward-thinking ways. Few have such a direct and positive effect on everyday lives, and we count on mechanical and aerospace engineers, and their imaginations, to help us meet the needs of the 21st century.

Mechanical and aerospace engineers know that life takes engineering, and that their disciplines provide freedom to explore, shape the future, encompass an enterprising spirit, and call for limitless imagination.

Engineering makes a world of difference and is essential to our health, happiness and safety. The core of mechanical and aerospace engineering is creative problem solving, which turns dreams into reality. These professional disciplines involve the invention, design and manufacture of devices, machines and systems that serve the ever-changing needs of modern society.

Mechanical engineering is an exceedingly diverse field that spans an exceptionally wide range of systems, devices and vehicles. Mechanical engineers are vitally concerned with all forms of energy production, utilization and conservation. They are the key professionals in bringing about the green revolution, finding ways to reduce or eliminate pollution, minimize waste, reduce energy usage, and re-use waste, scrap and recycled goods. They deal with everything mechanical and energy-consuming, whether small or large, simple or complex—from fuel cells to nuclear power plants, gas turbine engines to interplanetary space vehicles, artificial limbs to life support systems, robotic manipulators to complex automatic packaging machines, precision instruments to construction machinery, household appliances to mass transit systems, heating and air-conditioning systems to off-shore drilling platforms, and powered home and garden appliances to vehicles of all types. Mechanical engineers will be found in virtually every organization where engineers are employed.

The BS degree program in mechanical engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org (http://www.abet.org/). Premedical, petroleum, and fire protection options are offered for the BS degree in mechanical engineering.

Aerospace engineering is concerned with the science and technology of flight, and the design of air, space, land and sea vehicles for transportation and exploration. This exciting field has led people to the moon and continues to lead in the expansion of frontiers deeper into space and into the ocean's depths. Because of their unique backgrounds in aerodynamics and lightweight structures, aerospace engineers are becoming increasingly involved in solving some of society's most pressing and complex problems, such as high-speed ground transportation and pollution of the environment.

The BS degree program in aerospace engineering is accredited by the Engineering Accreditation Commission of the ABET, http://www.abet.org (http://www.abet.org/)/, under the criteria for aerospace and similarly named engineering programs.

MAE Mission

The mission of the School of Mechanical and Aerospace Engineering is to create a vibrant and stimulating learning and research environment and to instruct and encourage our students to reach their full potential in technical expertise, innovative expression, intellectual curiosity, and collaborative design.

MAE Mission for Undergraduate Instruction

The School of Mechanical and Aerospace Engineering will support the MAE and CEAT missions and the mission for instruction of Oklahoma State University by providing a first-class education to students that is grounded in engineering fundamentals. The Faculty of MAE are committed to preparing engineers who are:

- Competitive nationwide and internationally for employment opportunities and who will become respected achievers within their discipline.
- Well-prepared for the pursuit of advanced studies at any university.
- Prepared for a lifetime of continuing development, which is demanded by disciplines involved with rapidly progressing technology.

Rigor

The mechanical and aerospace engineering programs are among the most rigorous in the college, requiring broad knowledge and application of mathematics and the engineering sciences in addition to specialized knowledge and application of mechanical and aerospace engineering theory and design. The programs culminate in an intensive one-semester capstone design and rapid prototyping experience.

Program Educational Objectives

Program educational objectives are statements that describe the expected accomplishments and professional status of mechanical and aerospace engineering graduates three to five years beyond the baccalaureate degree. The School of Mechanical and Aerospace Engineering at Oklahoma State University is dedicated to graduating mechanical and aerospace engineers who:

1. Our graduates will be recognized leaders with exemplary careers to the greater benefit of society.
2. Our graduates will strive to acquire new skills and knowledge throughout their careers and will earn a reputation as responsible and ethical professionals.
3. Our graduates will be collaborative innovators who adapt to changing professional and societal norms with wisdom and integrity.

Student Outcomes

The student outcomes for students graduating from the mechanical and aerospace engineering BS programs are:

1. an ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.

3. an ability to communicate effectively with a range of audiences.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Because mechanical engineering is perhaps the broadest of all engineering disciplines, the program provides not only an excellent grounding in all engineering fundamentals but also allows some flexibility in selecting controlled technical electives to suit the student's interests. In this selection, no one area may be unduly emphasized at the expense of another. For the aerospace engineering, petroleum, fire protection and premedical programs, prescribed coursework provides students with more focused development. Graduates are fully competent as mechanical or aerospace engineers, with abilities in design, and in-depth knowledge in their areas of concentration.

With the guidance of an advisor, the student designs an individualized program of study consistent with his or her interests and career plans. Some students terminate their studies with a bachelor's degree, while others receive one of several graduate degrees.

As a fundamental component of all BS programs, engineering design is strongly emphasized in the junior and senior years but is integrated throughout the curriculum. Most MAE courses at the 3000- and 4000-levels include some design content, ranging from a minimum of one-half to a maximum of four credit hours of design content. Each junior and senior level course builds upon the preceding mechanical and aerospace engineering courses to develop in the student the ability to identify and solve meaningful engineering problems. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. The coursework includes sensitizing students to socially-related technical problems and their responsibilities as engineering professionals to behave ethically and protect occupational and public safety.

In the junior and senior years of the program, mechanical and aerospace engineering students extend their study of the engineering sciences and consider applications of fundamental principles and analysis tools to the solution of real technological problems of society. Some design courses involve students in the solution of authentic, current and significant engineering problems provided by industrial firms. Students may also help smaller firms that need assistance with the development of new products.

The program culminates in a senior-year design course in which students integrate analysis, synthesis and other abilities they have developed throughout the earlier portions of their study into a capstone experience. The design experiences include the fundamental elements and features of design with realistic constraints such as economics, safety, reliability, social and environmental impact, and other factors. At this point, students are able to design components, systems and processes that meet specific requirements, including such pertinent societal considerations as ethics, safety, environmental impact and aesthetics. Students develop and display the ability to design and conduct experiments essential to specific studies and to analyze experimental results to draw meaningful conclusions.

An integral part of this educational continuum, from basic science through comprehensive engineering design, are learning experiences that facilitate the students' abilities to function effectively in both individual and team environments. The program also provides every graduate with adequate learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and used as a part of their problem-solving experiences. Finally, the students' experience in solving ever-more-challenging problems gives them the ability to continue to learn independently throughout their professional careers.

The broad background and problem-solving ability of mechanical and aerospace engineers make them suited to engage in one or more of the following activities: research, development, design, production, operation, management, technical sales and private consulting. Versatility is their trademark. A bachelor's degree in mechanical or aerospace engineering is also an excellent background for entering other professional schools such as medicine, dentistry, law or business (MBA). The premedical option in mechanical engineering is available for students wishing to enroll in medical school.

Courses

MAE 3013 Engineering Analysis and Methods I
Prerequisites: A grade of "C" or higher in PHYS 2014 and MATH 2233.
Description: Setup and solution of equations which govern mechanical engineering systems. Application and solution of the governing equations to describe the steady state or transient behavior of dynamics, mechanics and circuit problems. Linear sets of equations, ODEs will be used to describe systems. Solutions may be simplified using complex numbers of Fourier/Laplace transforms. Numerical methods for solutions will be covered. Data analysis, quality control and statistical hypothesis testing will be covered.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mech & Aerospace Engr

MAE 3033 Design of Machines and Mechanisms
Prerequisites: Grades of "C" or higher in ENGR 1332 and MAE 3013 and MAE 3324.
Description: Study of the position, velocity, acceleration, and static and dynamic force behavior of machines and mechanisms. Analysis and synthesis of linkages and gear trains. Characteristics and selection of power sources, including electric motors, hydraulics, pneumatics and internal combustion engines. Lab: Machine tool safety. Use of common machine tools to build machine components. Use of lecture concepts in designing, building, and testing machines and mechanisms.
Credit hours: 3
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3113 Measurements and Instrumentation
Prerequisites: Grades of "C" or higher in ENSC 2613 and MAE 3013.
Description: Application of basic electronic laboratory measurement equipment. Selection and testing of transducers for measurement of displacement, time frequency, velocity, pressure, force, temperature, flow-rate, and vibration, for machine design applications. Considerations of accuracy, uncertainty and repeatability. Design projects involving the use of analog and digital integrated circuits and construction of prototype sensors. Practice in the use of signal processing, including digital filtering and applications of Fast Fourier Transform theory. Practice in the use of computer-based data acquisition systems. Preparation of formal reports, including the presentation of plots, figures and tables.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3123 Manufacturing Processes
Prerequisites: Grades of "C" or higher in ENSC 3313.
Description: An introduction to manufacturing processes including the fundamental processes of casting, forging, rolling, extrusion, drawing and metal cutting. Quantitative relationships to identify important parameters which influence a given process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3153 Introduction to MAE Design
Prerequisites: Grades of "C" or higher in (ENSC 2113 or concurrency) and (ENSC 2213 or concurrency).
Description: Identify, formulate and solve complex interdisciplinary engineering problems by applying principles of design, engineering science and mathematics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 3223 Thermodynamics II
Prerequisites: A grade of "C" or higher in MAE 3153.
Description: A continuation of ENSC 2213. Irreversibility and availability, power cycles, refrigeration cycles, mixtures and solutions, chemical reactions, phase and chemical equilibrium, and introduction to compressible flow.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3233 Heat Transfer
Prerequisites: A grade of "C" or higher in MAE 3333 or concurrency.
Description: Mechanisms of heat transfer. Steady and transient conduction, free and forced convection, heat exchanger design and analysis, radiation and multiphase behavior. Numerical methods, dimensional analysis and boundary layer theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3253 Applied Aerodynamics and Performance
Prerequisites: Grade of "C" or higher in MATH 2233. Aerospace Engineering majors only.
Description: Relevant fluid properties; standard atmospheres; mathematical models of flows about bodies. Characteristic parameters of airfoils and wings. Thin airfoil theory and flows about finite wings. Boundary layers. Propeller theory. Supersonic and hypersonic flows about wings and lifting bodies. Drag polars. Power required for level flight. Rate of climb and descent. Steady turns. Maximum range and endurance. Design applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3293 Fundamentals of Aerodynamics
Prerequisites: Grades of “C” or higher in MATH 2233 and MAE 3333. Aerospace Engineering majors only.
Description: Introduction to aerodynamic concepts; governing equations of gas flows in one and two dimensions. Inviscid, incompressible flow, flow over airfoils, flow over finite wings, 3D flow; Compressible flow; Basic thermodynamic and dynamic equations. Nozzle and duct flows, choking, normal and oblique shock waves, Prandtl-Meyer expansions, subsonic compressible flow over airfoils, compressible flow through nozzles, intro into viscous flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3324 Mechanical Design I
Prerequisites: Grades of "C" or higher in ENSC 2143 and ENSC 3313 and MAE 3153.
Description: Introduction to the design process. Consideration of reliability, factors of safety, product liability, and economics. Use of codes, standards, and other design resources. Stress analysis of mechanical components such as beams, rings, cylinders, and shafts. Analysis of stiffness and deflection of straight and curved beams, frames, columns, and links. Consideration of static and fatigue failure theories for various types of engineering materials. Incorporation of stress and deformation analyses and applicable material failure theories literatively until all design needs and constraints are satisfied. Same course as MAE 3323.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Mech & Aerospace Engr

MAE 3333 Fundamental Fluid Dynamics
Prerequisites: Concurrent in (ENGR 2421 or MAE 3113) and Grades of "C" or higher in ENSC 2113 and MATH 2153.
Description: Fluid statics; conservation of mass, momentum and energy in fixed and moving control volumes; steady and unsteady Bernoulli's equation; fluid kinematics and differential analysis of fluid flow; Navier-Stokes equations and exact solutions; dimensional analysis and similitude; laminar and turbulent flow; internal flows; boundary layer theory; lift and drag; pumps.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3403 Computer Methods in Analysis and Design
Prerequisites: Grades of "C" or higher in ENGR 1412 and ENSC 2123 and MAE 3013 and (MAE 3724 or concurrency).
Description: Application of linear algebra, numerical methods, statistics, and computer methods in the design, analysis, and simulation of mechanical, thermal, and fluid systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3524 Thermal Fluids Design
Prerequisites: Grades of "C" or higher in ENSC 2213 and MAE 3153 and MAE 3233 and MAE 3333.
Description: Design, modeling and simulation of thermal systems. Analysis and modeling of components such as fans, pumps, ducts, pipes, fittings, heat exchangers, and heat pumps.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 3724 Dynamic Systems Analysis and Introduction to Control
Prerequisites: Grades of "C" or higher in ENSC 2123 and ENSC 2613 and MAE 3013 and (MAE 3113 or ENGR 2421).
Description: Physical and mathematical modeling of mechanical, electrical, fluid, thermal and mixed dynamic systems. Systems analysis in the time domain and in the frequency domain, with an emphasis on first and second order systems. Laplace transform method for solving ordinary linear differential equations. Representation of system models using transfer functions, block diagrams and state variable forms. Use of computer methods for solving linear and nonlinear dynamic system models. Introduction to dynamic system control. Laboratory investigation to demonstrate application. Same course as MAE 3723.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4003 Introduction to Autonomous Systems
Prerequisites: Grades of "C" or higher in MAE 3403 and (MAE 3724 or ECEN 3723).
Description: Review of representations, coordinate transformations, and kinematics and dynamics of mobile ground and/or aerial robots. Introduction to robot mobility, I.e., path planning, trajectory generation, and trajectory tracking. Introduction to robot perception using sensors such as inertial measurement units, odometry, laser distance scanners, and cameras. Introduction to robot localization using sensor fusion. Introduction to Robot Operating System (ROS).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4010 Mechanical and Aerospace Engineering Projects
Prerequisites: Senior standing in MAE and consent of instructor.
Description: Special projects and independent study in mechanical or aerospace engineering. Offered for variable credit, 1 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 4020 Special Offerings
Prerequisites: Senior standing in MAE and consent of instructor.
Description: This course will be used as a temporary number for new undergraduate course offerings or special one-time only undergraduate course offerings. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours and a maximum of 6 credit hours obtained. May be used as an MAE elective with departmental permission, if not used to fulfill technical elective credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4053 Automatic Control Systems
Prerequisites: A grade of "C" or higher in MAE 3724 or ECEN 3723.
Description: Properties of feedback control systems, mathematical models of basic components, state-variable models of feedback systems, design specifications of control systems, time-domain analysis, stability, stability robustness, transform analysis, frequency domain techniques, root-locus, design of single-input-single-output systems and compensation techniques for engineering systems. Same course as ECEN 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4063 Mechanical Vibrations
Prerequisites: A grade of "C" or higher in MAE 3724.
Description: Lumped parameter analysis of multi-mode vibrating systems. Analysis techniques including classical analytical methods, matrix methods and numerical methods. Selection and design of vibration isolation systems. Selection of vibration instrumentation. Machine dynamics, including balancing, whirl, nonlinear effects, and self-excited vibrations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4213 Spacecraft Design
Prerequisites: A grade of "C" or higher in MAE 3253 and (MAE 3113 or [ENGR 2421 and concurrent in ENSC 2411]).
Description: Elements of basic aerospace engineering concepts focusing on spacecraft design. Fundamental material will include orbital dynamics, rocket theory and launch vehicle performance, principles of spacecraft stability and control, propulsion systems, aerospace structures, space environments and its effect on spacecraft design (thermal, radiation, magnetosphere and solar wind), atmospheric reentry, thermal management, power systems, telecommunications, cost analysis, spacecraft design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4223 Aerospace Engineering Laboratory
Prerequisites: Grades of "C" or higher in MAE 3253 and MAE 4283 and (MAE 3113 or ENGR 2421). Aerospace Engineering majors only.
Description: Experimental study of aerospace principles including topics in aeronautics and astronautics. State-of-the-art instrumentation, diagnostic, and computerized data acquisition equipment and techniques applied to experiments including application of low speed wind tunnel testing techniques, rocket propulsion and control-jet experiments, fundamentals of supersonic nozzles, and flight test evaluation of performance, stability, control, and handling qualities of a propeller-driven airplane.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4243 Aerospace Propulsion and Power
Prerequisites: Grades of “C” or higher in MAE 3153 and MAE 3293. Aerospace Engineering majors only.
Description: The study of aerospace power and propulsion engines utilizing a gas as the working fluid. Design and analysis of complete aircraft engine systems and individual components of the aircraft engine. Engine component matching for design using analysis routines, including inlets and diffusers, fans and compressors, combustors, turbines, nozzles, and propellers. Additional propulsion and power systems including chemical and non-chemical rocket motors and other internal combustion engines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4263 Energy Conversion Systems
Prerequisites: Grades of "C" or higher in MAE 3153 and MAE 3524.
Description: This course covers the use of renewable and non-renewable energy sources in power production. Energy conversion processes are analyzed, and performance characteristics of components and systems are modeled using modern computational methods. Applications include overall design of conventional Rankine power systems and may also include design of nuclear, solar, wind, wave, thermoelectric, and geothermal energy systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4273 Experimental Fluid Dynamics
Prerequisites: Grades of "C" or higher in MAE 3333 and (MAE 3113 or [ENGR 2421 and ENSC 3231]).
Description: Experimental study of basic and applied fluid dynamics systems with comparisons to analytical predictions. Fluid dynamics instrumentation, digital data acquisition and processing, design of facilities and experiments, technical report writing and design project with experimental verification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4283 Aerospace Vehicle Stability and Control
Prerequisites: Grades of "C" or higher in MAE 3253 and MAE 3724. Aerospace Engineering majors only.
Description: Motion and control of aerospace vehicles. Derivation of equations of motion for aircraft and spacecraft. Aerodynamic stability derivatives. Static and dynamic aircraft stability and control. Handling qualities. Satellite orbital and attitude dynamics. Satellite attitude control. Design experience for stability and control in aeronautical and astronautical vehicles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4313 Advanced Processing of Engineered Materials
Prerequisites: Grades of "C" or higher in ENSC 3313.
Description: Introduction of novel processing methods for a range of engineered materials, such as electro-slag remelting, vacuum melting, melting to remove tramp elements, precision casting, sintering, hot-pressing, directional solidification, mechanical alloying, liquid infiltration, net-shaped finishing, superplastic forming, sol-gel processing, float glass process, tape laying, microwave processing, laser processing, CVD and PVD, sputtering, ion plating, ultraprecision machining and grinding, polishing and lapping, multilayer coatings, Czhochralski single crystal growth, processing of nanocrystalline materials, engineered surfaces and surface modification, and layer processing for electronic materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4333 Mechanical Metallurgy
Prerequisites: Grades of "C" or higher in ENSC 3313 and (MAE 3113 or ENGR 2421).
Description: Mechanical deformation processes and strengthening mechanisms in engineering materials. Material failure modes including creep, fatigue, stress corrosion, ductile and brittle fractures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4342 Design Projects I
Prerequisites: Grades of "C" or higher in MAE 3233 and MAE 3324 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 3231, ENSC 3311]).
Description: Two-semester design project with team format. Projects are sponsored by a company, agency, or individual. Team members work with sponsors and faculty who serve as mentors in fields related to their topics. Students complete oral presentations, progress reports, and create a professional log book to document their activities and contributions. Topics include safety, patent law, product liability, report writing, and scheduling.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4344 Design Projects
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3524 and MAE 3724 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]).
Description: Students work in small teams on a semester-long design project sponsored by a company, agency, or individual. Team members work with mentors from sponsors and with faculty members in fields related to their topics. Presentations on safety, patent law, product liability, report writing, oral presentations, scheduling and ideation. Oral presentations, progress reports, and a professional log book documenting personal activity and contributions.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Mech & Aerospace Engr

MAE 4352 Design Projects II
Prerequisites: A grade of "C" or higher in MAE 4342.
Description: Second of two-semester sequence of senior design courses.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4353 Mechanical Design II
Prerequisites: A grade of "C" or higher in MAE 3324.
Description: Design of power transmission systems, including belts, chains and gears. Selection and application of hydraulic and pneumatic components in machine design applications. Selection of electric motors, actuators, encoders, and related electromechanical components. Design practice in the form of short projects integrating segments of the course. Same course as BAE 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4354 Aerospace Systems Design for Mechanical Engineers
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3524 and MAE 3724 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]).
Description: Multidisciplinary design of aerospace vehicles. Multidisciplinary teams that work on a semester-long project that includes the design, construction, and a flight test of an aerospace vehicle optimized for a given set of requirements. Teamwork, leadership and presentation skills emphasized.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 5 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4363 Advanced Methods in Design
Prerequisites: Grades of "C" or higher in MAE 3324 and (MAE 3113 or ENSC 2411 or ENSC 2611 or ENSC 2613 or ENSC 3311).
Description: Analytical and experimental techniques for the analysis of vibration, stress, force and motion. The finite element analysis method is introduced. Strain gages, photoelasticity, force gages, deflection gages, accelerometers and other transducers and methods are used in the laboratory. Projects involve the combined use of advanced analytical and experimental methods to realize optimal designs.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 4 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4374 Aerospace System Design
Prerequisites: Grades of "C" or higher in MAE 4243 and MAE 4283 and MAE 4513 and (MAE 3113 or [ENGR 2421 and two courses from the following list: ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, ENSC 3431]). Aerospace Engineering majors only.
Description: Multidisciplinary design of aerospace vehicles. Multidisciplinary teams that work on a semester-long project that includes the design, construction, and a flight test of an aerospace vehicle optimized for a given set of requirements. Teamwork, leadership and presentation skills emphasized.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Independent Study, Lecture, Combined lecture & IS
Department/School: Mech & Aerospace Engr

MAE 4513 Aerospace Structures
Prerequisites: Grades of "C" or higher in MAE 3324 and MAE 3403 and MAE 3253. Aerospace Engineering majors only.
Description: Design and analysis of flight structures. Topics from two and three-dimensional elasticity. Behavior of composite materials. Stress and deflection analysis of thin-skinned stiffened structures. Introduction to the finite element method and its applicability in the design process.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4583 Corrosion
Prerequisites: A grade of "C" or better in ENSC 3313.
Description: Modern theory of corrosion and its applications in preventing and controlling corrosion. Thermodynamics, Pourbaix diagrams, kinetics, polarization, passivation, effect of stress, cathodic protection, alloying, coatings. Lab experiments to characterize, simulate, diagnose and control corrosion.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 4623 Biomechanics
Prerequisites: Grades of "C" or higher in MATH 2163 and MAE 3153 and MAE 3324.
Description: This course will provide students with the basic knowledge necessary to conduct biomechanics investigations, design implants and prosthetics, and interact with other medical professionals. Covering a wide selection of topics ranging from cell to whole-body mechanics and behaviors. Specific topics will be: cellular biomechanics, bone biomechanics and fracture, muscle biomechanics and injuries, physiological functions, human motion analysis, biomaterials and implants design, prosthetics design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4703 Design of Indoor Environmental Systems
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: Design of heating, ventilating and air conditioning systems. Calculation of heating and cooling loads.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4713 Thermal Systems Realization
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: This course will develop the tools required to design, analyze, and improve thermal energy systems. There will be an emphasis on practical understanding and detailed analysis techniques for system components, integration, and design. Some topics included are: the vapor compression cycle (for refrigeration and heat pump applications); compressor and heat exchanger analysis; and waste-heat recovery topics including Organic Rankine Cycles (ORC).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4723 Refrigeration Systems Design
Prerequisites: A grade of "C" or higher in MAE 3524.
Description: This course covers the modeling, analysis, and design of vapor compression refrigeration systems applied to air-conditioning and refrigeration applications. There will be an emphasis on practical understanding of components, system integration, and system design. This includes analysis and selection of compressors, heat exchangers and expansion devices as well as the integration of these components into system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 4733 Mechatronics Design
Prerequisites: Grades of "C" or higher in MAE 3153 and MAE 3403 and (MAE 3113 or [ENGR 2421 and ENSC 2411]).
Description: Design of mechanical and electrical components, including sensors and actuators into an integrated environment using microcontrollers. Software design using an easy-to-program microcontroller embodies the importance of software implementation into the overall engineering system. Design practice with given design projects to build up skills plus an open-ended term design project of the student's choosing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5000 Master's Thesis
Prerequisites: Graduate standing in MAE and consent of student's adviser.
Description: A student studying for a master's degree who elects to write a thesis must enroll in this course. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5003 Advanced Biomaterials Science and Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Engineering issue that are implicit in understanding the interactions of living tissue and processed materials will be introduced. Emphasis is on identifying the processes in which cells interact with surfaces and particulate matter and the outcome of these interactions. Highlighted biological responses will include inflammation and coagulation. Also, biomaterial issues related to drug delivery and tissue engineering will be discussed. Same course as CHE 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5010 Mechanical and Aerospace Engineering Projects
Description: Project in research assigned by the student's advisor. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5013 Physiological System Analysis for Engineers
Prerequisites: Graduate standing or consent of instructor.
Description: Introduce the basic physiology concepts used widely in biomedical engineering research; and introduce and develop engineering concepts and approaches for quantitative analysis of physiological systems. Engineering principles of mechanical properties of various tissue and organ systems under normal and diseased conditions. Same course as CHE 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5020 Special Offerings
Prerequisites: Graduate standing or consent of instructor.
Description: This course will be used as a temporary number for new graduate course offerings or special one-time only graduate course offerings. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours and no set maximum of credit hours obtained.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5023 Advanced Biofluid Mechanics
Prerequisites: Graduate standing or MAE 3233 (or equivalent).
Description: From sub-cellular to the organ level, life is supported by mass transfer processes, which encompass everything from free diffusion to the convection of bulk fluids. Therefore, to understand the body's functions, it is necessary to apply the fundamental fluid mechanics and heat transfer laws to physiological systems. Special emphasis will be placed on different length scales in physiological system, biorheology, conservation laws, mechanical coupling to vessel deformation and relevant physiology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5030 Engineering Practice
Prerequisites: Graduate standing in MAE and consent of student's adviser.
Description: Solution of real-life engineering design and development problems in an actual or simulated industrial environment. Activities include application of design and testing procedures, economic evaluation and periodic oral and written reporting on one or more assigned problems. Activities must be approved in advance by the adviser. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 5033 Advanced Biomedical Engineering
Prerequisites: Consent of instructor.
Description: Principles and engineering analysis of biomedical processes. Artificial organs, biomaterials, tissue engineering, transport in biological systems, biomedical imaging and drug delivery systems. Same course as CHE 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5053 Design of Engineering Experiments
Prerequisites: Graduate standing.
Description: The purpose of this course is to teach graduate students how to apply statistical methods to the solution of biological and engineering problems. They will learn how to use statistical methods to design experiments, present and analyze experimental data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5063 Soft Tissue Mechanics
Prerequisites: MAE 3324 or an equivalent course with the consent of the instructor.
Description: Introduction to the most commonly used computational techniques for investigating and analyzing the behavior of biological soft tissues. Application of computational methods such as elasticity, viscoelasticity, and poroelasticity for numerically modeling the properties of biomaterials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5073 Advanced Mechanical Vibrations
Prerequisites: MAE 4063 or consent of instructor.
Description: Analysis of nonlinear vibrations, classical analysis of continuous systems and numerical methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5080 Fundamental Topics
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamental topics that are typically introduced in the undergraduate senior year curriculum with additional depth and breadth commensurate with the graduate program. Repeat credit may be earned with different course subtitles assigned. Offered for 3 credit hours, maximum of 9 credit hours allowed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5083 Engineering Acoustics
Prerequisites: Graduate standing or consent of instructor.
Description: Acoustical analysis and measurement techniques, with emphasis on design applications for noise and vibration control in machinery and in buildings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5093 Numerical Engineering Analysis
Prerequisites: Undergraduate course in computer programming and consent of professor.
Description: Practical digital methods for obtaining steady-state and transient solutions to lumped and distributed mechanical, fluid and thermal problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5103 Advanced Dynamics
Prerequisites: Graduate standing or consent of instructor; ENSC 2123, MAE 3013 and MAE 3724.
Description: This course will address the effects of forces on the motion of a body or system of bodies to solve real-world engineering problems. It will emphasize the tools of analytical dynamics to develop mathematical models that describe the dynamics of particles, rigid bodies, and systems of particles or rigid bodies. The course will also address the formulation of equations of motion for complex mechanical systems and computational methods for solving these equations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5113 Diffraction in Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to crystallography and diffraction with an emphasis on X-Ray diffraction, some exposure to Neutron diffraction, radiography and tomography. Applications will focus on mechanical properties measurements. New methods will be surveyed with an emphasis on current research. Same course as MSE 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr
Additional Fees: CEAT GR Consummable Materials fee of $22 applies.

MAE 5123 Advanced Material Removal Processes
Prerequisites: ENSC 3313 and MAE 3123 and graduate standing or consent of instructor.
Description: Understanding the fundamental principles and practice (mechanics and material aspects) of machining and grinding of materials. Historical aspects; physics of metal cutting, mechanics of machining (orthogonal and oblique); shear stress and shear strain in machining, dynamometry; tool materials, tool wear, tool life, and machinability; vibrations in machining; thermal aspects of machining, cutting fluids; economics; surface finish accuracy and surface integrity, and grinding.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5133 Mechanical Behavior of Materials
Prerequisites: ENSC 3313 or equivalent.
Description: A unified approach to the behavior and response of engineering materials to applied loads. Mechanical and metallurgical fundamentals of deformation processes. Spatial scales of atomic physics, micromechanics and continuum mechanics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5143 Tribology
Prerequisites: Graduate standing or consent of instructor.
Description: The principles of tribology. Definition of tribology, contact of solids, surface topography, real area of contact, friction of various materials, basic mechanisms of friction, mechanisms of wear (adhesion, abrasion, fatigue, erosion, and fretting), hardness of solids, frictional heating and surface temperatures, material properties that influence surface interactions, surface roughness measurement, surface integrity residual stresses and subsurface deformation, application of tribology to manufacturing, wear resistant materials, wear-resistant coatings, experimental methods in tribology, surface analytical tools in tribology, scanning tunneling microscopy/atomic force microscopy, wear monitoring and wear prevention, and systems approach to tribology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5153 Precision Engineering I
Prerequisites: Graduate standing or consent of instructor.
Description: An integrated approach to underlying engineering principles governing product and process designs requiring accuracies typically better than 1 part in 106. Design and control of precision machines and instruments, dimensional and surface metrology, scanning probe microscopy, ultra-precision machining and grinding, and precision assembly.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5163 Precision Manufacturing Process
Prerequisites: MAE 3123 or equivalent.
Description: Introduction to precision manufacturing, design principle of precision machine tools and source of errors, diamond turning and milling, grinding, polishing and lapping, sensors for precision manufacturing, precision manufacturing applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5173 Biomimetics in Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: Nature has developed processes, techniques, and materials that function optimally from the nanoscale to the macroscale. The goal is to introduce methods and techniques derived from Nature and used to solve engineering and research problems. This course will provide students with the most common nature-derived concepts used in engineering. Relevant techniques will then be applied to each student's research project.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5183 Nanostructured Materials
Prerequisites: Graduate standing and basic undergraduate materials science course or equivalent.
Description: Size and shape dependence of material properties at the nanoscale. Interaction, surface energy, functionalization, binding, and immobilization of nanostructures. Top-down and bottom-up nanofabrication, atomic processes and self assembly. Lithography, thin fills, functional coating, Langmuir-Blodgett films, layer-by-layer growth. Properties, applications and synthesis of well-studied building blocks; quantum dots (semiconductor nanocrystals), carbon nanostructures (nanotubes and fullerenes), semiconductor nanowires, metal nanoparticles and nanowires.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5193 Computational Biomechanics and BioRobotics
Prerequisites: Graduate standing or consent of instructor; MATH 2233 and ENSC 2123.
Description: Introduction to human anatomy, skeletal and musculoskeletal modeling, human modeling packages, kinematics and dynamics of human system, posture and motion predictions, digital human modeling, tissue biomechanics, optimization theory and applications in human modeling, rehabilitation robots, exoskeleton, human-robot interaction, and learning-based human-robot control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5213 Engineering Plasticity
Prerequisites: Graduate standing or consent of instructor.
Description: This course will present the fundamentals of the continuum theory of plasticity applicable in analysis and design of materials forming processes. The following topics will be covered: Yielding, Stress and Strain, Isotropic Yield Criteria, Work Principles, Anisotropic Plasticity, Effects of Strain Hardening and Strain-Rate Dependence, Defect Analysis, Effects of Pressure and Sign of Stress State, Plasticity Tests.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5223 Mechanics of Bonds
Prerequisites: Graduate standing or consent of instructor.
Description: The course will focus on the principles of mechanics of bond (adhesion) between the materials in relation to the design, fabrication and testing of bonds. Especially, the contents will focus attention to adhesive bonding.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5233 Advanced Fluid Dynamics I
Prerequisites: ENSC 3233.
Description: Introduction to fluid flows. Governing equations for mass, momentum and energy. Exact solutions of Navier-Stokes' equations. Dimensional analysis and similitude. Potential flows. Boundary layer theory. Low Reynolds number flows. Introduction to vorticity dynamics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5243 Micro Flows
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamentals and simulation of micro flows including governing equation, slip models, shear- and pressure-driven micro flows. Thermal effects in micro scales. Applications; MEMS and micro propulsion. Numerical methods for continuum simulation and atomistic simulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5253 Multiphase Flow
Prerequisites: Graduate standing.
Description: Theory, methods and practical experience for studying complex transient multiphase flows: basic concepts and definition, dynamics of bubbles, drops and rigid particles, gas-liquid transport in ducts, fluid-solid transport in ducts, aerosol and spray systems, foam, fluidization, particle separation systems multiphase flow in porous media, breakup of liquid sheets and jets, modeling, advanced experimental techniques for multiphase flow.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5263 Combustion
Prerequisites: Graduate standing or consent of instructor.
Description: Chemical thermodynamics, chemical kinetics, conservation equations for reacting systems, premixed laminar flames, diffusion flames, turbulent flames, mechanism reduction and chemistry solvers, combustion diagnostics, new combustion technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5273 Advanced Fluid Dynamics II
Prerequisites: MAE 5233.
Description: Application of advanced fundamental concepts and methods to vorticity dynamics, gravity waves, instability, and an introduction to turbulence. Specialty topics (e.g. geophysical flows, compressible flows, biofluids) will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5283 Data Assimiliation in Science and Engineering
Prerequisites: (ENGR 1412 or equivalent course in computer programming and knowledge of scientific computing) and (MAE 3013 or equivalent course in differential equation and engineering mathematics) and (MAE 3403 or equivalent undergraduate course in computational methods).
Description: Data assimilation is a well-established scientific discipline that combines computational models observations. It is geoscience terminology and refers to the estimation of the state of a physical system given a model and measurements. In other words, it is the process of fitting models to data. In engineering fields the terms filtering, estimation, and smoothing are often used. In the last decades data assimilation has gained popularity in many computational disciplines at both universities and research centers. In this course, starting from mathematical preliminaries (e.g., numerical linear algebra, model reduction, optimization techniques, etc), common methods of data assimilation (both sequential and variational methods) are introduced and derived in the context of both variational and estimation theory with emphasis on computational aspects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5303 Advanced Space Propulsion and Power
Prerequisites: MAE 4243 (or equivalent).
Description: Advanced analysis of chemical, nuclear, electric and solar thermal rockets with a focus on solid, liquid and hybrid rocket propulsion. Progression from fundamentals to design and analysis of complete rocket systems, including design case studies. Design, build, test and evaluation of chemical rocket components.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5313 Autopilot Design and Test
Prerequisites: Graduate standing or consent of instructor; MAE 3403 and MAE 3724 and MAE 4053 and MAE 4283.
Description: Basic theory, hardware, and implementation, and test techniques for contemporary autopilot design, with a particular example on unmanned aerial systems. Flight mechanics modeling and simulation, basic sensor modeling and usage, filtering and state estimation, and feedback strategies are discussed. Typical computing hardware platforms and their limitations for autopilots usage are discussed. General purpose computing hardware is extended to field UAV platforms. Validation techniques are introduced, including an introduction to formal methods verification and a more thorough exercise in operational hardware testing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5343 Advanced Aero Propulsion and Power
Prerequisites: MAE 4243; Graduate Standing or Consent of Instructor.
Description: Advanced analysis of aircraft engines. Preliminary aerodynamic and structural design of major engine components including inlets, compressors, combustors, turbines, mixers, afterburners, and nozzles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5353 Testing, Control, and Simulation of Thermal Systems
Prerequisites: Graduate standing or consent of instructor; MAE 3524 or equivalent.
Description: This course introduces the usage of computer software for the simulation and experimental testing of thermal systems and their components. Specifications of sensors and test plans based on uncertainty calculation as well as HVAC controls are introduced.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5363 Advanced Analytical Electron Microscopy
Prerequisites: Graduate standing or consent of instructor.
Description: Fundamentals of electron microscopy and the associated characterization techniques; functions of the SEM/TEM and how it works; basic analytical microscopy techniques (imaging, diffraction, EDS, EELS) and data interpretation to develop an understanding of structure-property correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5383 Practical Computational Fluid Dynamics
Prerequisites: Graduate standing or consent of instructor.
Description: An introduction to the practical use of Computational Fluid Dynamics (CFD) commercial software. Student will be introduced to the concepts governing CFD, but the majority of the class will be utilized in learning the use of a popular commercial code. Same course as MET 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5403 Computer-Aided Analysis and Design
Prerequisites: Undergraduate course in computer programming and consent of professor.
Description: Theory, application and implementation of digital-computer-oriented algorithms for the synthesis, simulation, analysis and design of engineering systems. Advanced FORTRAN methods for optimization, simulation and data analysis. Implementation of these methods uses program libraries, batch processing, remote terminals and graphic display units.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5413 Optimal Control
Prerequisites: MAE 5713 or ECEN 5713.
Description: Optimal control theory for modern systems design. Specification of optimum performance indices. Dynamic programming, calculus of variations and Pontryagin's minimum principle. Iterative numerical techniques for trajectory optimization. Same course as ECEN 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5433 Robotics, Kinematics, Dynamics and Control
Prerequisites: MAE 4053 or ECEN 4413 or consent of instructor.
Description: Kinematic and dynamic analysis of robot manipulators. Inverse kinematics, motion planning and trajectory generation. Industrial practice in robot servo control. Dynamics and control in the presence of constraints. Actuators and sensors. Force sensors and vision systems. Robotic force control and its applications in industry. Passivity based control algorithms. Advanced control techniques for motion and force control. Same course as ECEN 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5463 Nonlinear System Analysis and Control
Prerequisites: MAE 4053 or ECEN 4413.
Description: Failure of superposition of effects; phase-plane analysis; limit-cycles; Lyapunov stability; hyperstability and input-output stability; controllability and observability of nonlinear systems; feedback linearization; robust nonlinear control system design. Same course as ECEN 5463. Previously offered as MAE 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5473 Digital Control Systems
Prerequisites: MAE 4053 or ECEN 4413.
Description: Input output and state space representations of linear discrete-time systems. Approximate methods in discrete-time representation. Stability methods. Controllability, observability, state estimation, and parameter identification. Design and analysis of feedback control system using frequency-domain and state-space methods. Introduction to optimal control. Same course as ECEN 5473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5483 Advanced Mechatronics Design
Prerequisites: MAE 4733 or similar course and consent of instructor.
Description: Continuation of topics covered in the undergraduate course MAE 4733 Mechatronics Design. Optimizing C programming code for microcontrollers using the assembly language instruction set, RS-232 microcontroller communication protocol, Controller Area Network (CAN) communication protocol plus hands-on CAN bus development boards, advanced topics which could include but are not limited to sensor design, real time operating systems, and advanced communication protocols. Same course as ECEN 5483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5503 Mechanics of Advanced Composites for Structural Design
Prerequisites: ENSC 2113, ENSC 2143 or consent of instructor.
Description: Basic principles governing the micro-mechanics of a lamina, and the macro-mechanics of a laminate are discussed in detail. Analysis of continuous fiber, short-fiber, and woven-fiber polymer matrix composites. A computer program for an analysis and design of composite laminates is developed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5513 Stochastic Systems
Prerequisites: ECEN 3513 and 4503 or STAT 4033 or MAE 4053 or MAE 4063 or consent of instructor.
Description: Theory and applications involving probability, random variables, functions of random variables, and stochastic processes, including Gaussian and Markov processes. Correlation, power spectral density, and non-stationary random processes. Response of linear systems to stochastic processes. State-space formulation and covariance analysis. Same course as ECEN 5513. Previously offered as MAE 6063.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5523 Estimation Theory
Prerequisites: MAE 5513 or ECEN 5513.
Description: Stochastic model development, parameter estimation and state estimation. The linear model, model order determination, least squares, estimation, maximum likelihood estimation, Bayesian estimation. Gaussian random vectors, estimation in linear and Gaussian models, state estimation, the Kalman filter, prediction and smoothing. Same course as ECEN 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5533 Theory of Elasticity
Prerequisites: Graduate standing or consent of instructor; MAE 3324 or equivalent.
Description: Basics of tensor calculus, field equations (strain-displacement, compatibility, equilibrium, and constitutive relation), solution of plane elastrostatics problems in cartesian and polar coordinates, potential function formulation, introduction to 3D problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5543 Modern Materials
Prerequisites: ENSC 3313.
Description: Properties, applications and recent innovations of structural engineering materials. Metals, ceramics, polymers and composites considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5553 Fatigue and Fracture Mechanics
Prerequisites: MAE 4333 or consent of instructor.
Description: The course provides an introduction to the mechanics of fracture of brittle and ductile materials and covers the basics of both linear-elastic fracture mechanics (LEFM) and elastic-plastic fracture mechanics (EPFM). Crack initiation and propagation is studied under quasi-static, dynamic, and cyclic loading conditions. Models are presented for time dependent fracture including creep and fatigue crack growth. Methods to experimentally determine fracture properties, based on relevant ASTM standards, are introduced. Same course as MSE 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5563 Finite Element Methods
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to the finite element method in mechanical engineering. Numerical and mathematical formulations including an introduction to variational methods. Computer applications in solid mechanics, heat transfer and fluid mechanics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5573 Continuum Mechanics
Prerequisites: Graduate standing of consent of instructor.
Description: Principles governing the mechanics of a continuum. Tensor calculus. Strain and kinematics of deformation. Conservation laws, stress and equilibrium. Constitutive equations of elastic, viscoelastic, and plastic solids. Solving boundary value problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5583 Corrosion Engineering
Prerequisites: ENSC 3313 or equivalent.
Description: Modern theory of corrosion and its applications in preventing or controlling corrosion damage economically and safely in service. Same course of MSE 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5593 Viscoelasticity
Prerequisites: Graduate standing or consent of instructor.
Description: Advanced stress analysis and constitutive modelling of time-dependent materials such as polymers or metals near their melting point. Overview of viscoelastic materials and applications. Experimental material characterization and thermodynamic foundation of the constitutive behavior. Time-temperature superposition principle for thermo-rheologically simple materials. Differential and integral formulation of basic rheological models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5603 Stability of Structures
Prerequisites: Graduate standing or consent of instructor.
Description: Stability is a fundamental problem in solid mechanics, which is crucial to the safety of structures against collapse. The theory of stability is of great importance for structural engineering, aerospace engineering, nuclear engineering, etc. Elastic and non-elastic theories of stability will be discussed for structures such as columns, frames, thin-walled beams, plates and shells. Energy methods for discrete and continuous structures will also be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5633 Advanced Thermal Energy Systems Analysis
Prerequisites: MAE 3524 and MAE 3233; Graduate Standing or Consent of Instructor.
Description: This course will develop the tools required to design, analyze, and improve advanced thermal energy systems. There will be an emphasis on practical understanding of components, system integration, and system design. Some topics included are; improvements to the vapor compression cycle (for refrigeration and heat pump applications); compressor and heat exchanger analysis; heat-driven vapor compression cycles; waste-heat recovery topics including Organic Rankine Cycles (ORC) and expander analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5653 Refrigeration
Prerequisites: MAE 3524; Graduate Standing or Consent of Instructor.
Description: Thermal engineering of refrigeration and heat pump systems, vapor compression systems, absorption refrigeration cycles, cryogenics, compressors, heat exchangers, flow control devices, laboratory simulators and measurements, socio-economics and environmental impact of systems and refrigerants. A general-purpose computer software program is used for analysis and design of several refrigeration systems and components.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5663 Advanced Finite Element Analysis
Prerequisites: MAE 5563 or consent of instructor.
Description: Development of three-dimensional isoparametric solid elements using Lagrange and serendipity family of elements, solution of three-dimensional thermoelasticity problems, linear time dependent problems, variational formulation and computer implementation of structural dynamics analysis using implicitly operators, implementation of three-dimensional diffusion and heat transfer analysis, solution of a nonlinear system of equations, and finite element analysis using commercial software packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5673 Mechanics of Fracture, Contact and Friction
Prerequisites: Graduate standing or consent of instructor.
Description: Rigorous derivation and presentation of the equations of fracture mechanics, contact and friction. Equations of solid mechanics and mathematical preliminaries, elastic stress field near a crack tip, stress intensity factors, fracture toughness, Griffith solution and J-integral, elastic-plastic fracture, fatigue, Dugdale model and cohesive zone laws, experimental techniques in fracture mechanics, contact mechanics, friction modeling. More advanced topics and projects will be chosen from interfacial crack growth, subsonic and intersonic dynamic fracture, rate- and state-dependent friction laws, fracture and friction at the small scales (nanomechanics), and finite-element analysis using commercial packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5683 Thermodynamics and Thermostatistics of Materials
Prerequisites: ENSC 3313 or equivalent.
Description: Notions of energy, entropy, equilibrium, macrostates, and microstates and their relation to material processes and properties. Deriving material properties from equations of state: Maxwell relations. Statistical thermodynamics: predicting material properties from microstates. Partition function. Phase transformations. Thermodynamics of surfaces and defects. Electrochemistry. Same course as MSE 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5693 Phase Transformations in Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Principles of phase transformations in material. Structure of materials, phase diagrams, diffusion, solidification, and diffusional and diffusionless transformations will be covered. Recent developments in materials research relevant to phase transformations. Same course as MSE 5693.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5703 Optimization Applications
Prerequisites: Graduate standing.
Description: A survey of various methods of unconstrained and constrained linear and non-linear optimization. Applications of these methodologies using hand-worked examples and available software packages. Intended for engineering and science students. Same course as CHE 5703, ECEN 5703 & IEM 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5713 Linear Systems
Prerequisites: Graduate standing or consent of instructor.
Description: Introduction to the fundamental theory of finite-dimensional linear systems with emphasis on the state-space representation. Mathematical representations of systems; linear dynamic solutions; controllability, observability, and stability; linearization and realization theory; and state feedback and state observer. Same course as ECEN 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5733 Neural Networks
Prerequisites: Graduate standing.
Description: Introduction to mathematical analysis of networks and learning rules, and on the application of neural networks to certain engineering problems image and signal processing and control systems. Same course as CHE 5733 & ECEN 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5753 Advanced Experimental Mechanics of Solids
Prerequisites: MAE 5573 or consent of instructor.
Description: Application of advanced experimental mechanics techniques to investigate and characterize response of solid materials. Course material includes use of at-a-point and full-field techniques, characterizing rate- and time-dependent material response, and techniques for finite deformation.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5763 Wave Motion and Vibration of Continuous Media
Prerequisites: MAE 5573 or consent of instructor.
Description: Fundamentals of the formulation and solution of the problem of wave motion and vibration in continuous media. Propagation of stress waves and the implication of high-rate loading on mechanics problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5773 Intelligent Systems
Prerequisites: MAE 5733 or ECEN 5733.
Description: Introduction to the state-of-the art intelligent control and system successfully deployed to industrial and defense applications. Emerging intelligent algorithms (e.g., bottom-up, top-down, seminotics); reinforcement learning and hybrid systems; and case studies and design projects. Same course as ECEN 5773.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5783 Principles of Autonomous Decision Making
Description: This course will provide a detailed overview of the fundamental principles of autonomous decision making and their applications to various engineering and computer-science domains. This course will survey popular and emerging techniques in reasoning and perception as well as optimal decision making methodologies. Learning and reasoning paradigms include support vector machines, Gaussian Processes, and Bayesian Nonparametric Learning. Optimal decision making techniques include Markov Decision Processes, Planning and reinforcement learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5803 Advanced Thermodynamics I
Prerequisites: Graduate standing or consent of instructor.
Description: A rigorous examination of the fundamental principles of engineering thermodynamics to include the First Law, Second Law and availability, thermodynamics equations of state for single phase and multi-phase systems, chemically reactive systems, and equilibrium. A general purpose computer software program is used for examination of case studies of thermodynamic processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5813 Intermediate Heat Transfer
Prerequisites: MAE 3233 or equivalent.
Description: Continuation of the topics covered in the undergraduate heat transfer course (MAE 3233) with the addition of mass transfer. This course covers problems of heat and mass transfer in greater depth and complexity than is done in the undergraduate heat transfer course and incorporates the subjects that are not included or are treated lightly in that course. Analysis will be given greater emphasis than the use of correlations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5823 Radiation Heat Transfer
Prerequisites: MAE 3233 or equivalent and graduate standing or consent of instructor.
Description: The mechanism of the transfer of energy by thermal radiation; radiant properties of materials, energy transfer prediction methods and solar energy topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5833 Transient Simulation of Thermal Systems
Prerequisites: Graduate Standing or consent of instructor.
Description: This course provides an introduction to the transient simulation of building thermal systems. Learned material is reinforced in lab sections as well as in a semester project.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5843 Conduction Heat Transfer
Prerequisites: ENSC 3233.
Description: Advanced heat transfer analysis and design, with primary emphasis on conduction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5853 Computational Heat Transfer
Prerequisites: MAE 3233, graduate standing, knowledge of FORTRAN.
Description: Computational techniques for the solution of two-dimensional heat transfer, fluid flow and related processes in problems of practical interest. A general-purpose computer program used to demonstrate the capabilities of the numerical method through a wide variety of engineering problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5863 Building Heat Transfer and Simulation
Prerequisites: ENSC 3233 and MAE 3524 and MAE 3233; Graduate Standing or Consent of Instructor.
Description: Conduction, convection and radiation heat transfer applied to building thermal simulation. Solar radiation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5873 Advanced Indoor Environmental Systems
Prerequisites: MAE 4703.
Description: Heating, air-conditioning, ventilation and refrigeration systems. System and component analysis, design and simulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5913 Advanced Aerodynamics
Prerequisites: ENSC 3233 or equivalent.
Description: Aerodynamics of the subsonic, transonic, supersonic, and hypersonic flow regimes. Derivation of governing equations and fundamental principles. Analytical and computational analysis methods. Recent developments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5923 Guidance and Control of Aerospace Vehicles
Prerequisites: Graduate standing or consent of instructor.
Description: Navigation, guidance and attitude control of aircraft, launch vehicles and spacecraft. Inertial navigation mechanizations and error analysis. Stability augmentation systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5933 Aeroelasticity
Prerequisites: Graduate standing or consent of instructor.
Description: Interaction between fluid dynamic, inertial and elastic forces. Development of analytical and computational methods for analysis. Application to a broad range of problems in engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5943 Unsteady Aerodynamics and Aeroacoustics
Prerequisites: ENSC 3233 or equivalent.
Description: Development of governing fluid dynamic equations for unsteady flows; linear unsteady aerodynamics for isolated and cascaded lifting surfaces; acoustics in moving media; three-dimensional duct acoustics; sound generation from isolated airfoils, cascaded airfoils, rotor-stator interactions, multiple pure-tone sources, propellers and jets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5953 Aerospace Systems Engineering
Prerequisites: MAE 3253 or equivalent.
Description: Aircraft and spacecraft design from a systems perspective, covering basic systems engineering, cost and weight estimation, basic vehicle performance and trade study analysis, safety and reliability, lifecycle analysis, subsystem integration, risk analysis and management, system realization, and multi-disciplinary optimization (MDO). Additional topics include requirements identification and development, and program planning and control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5963 Unmanned Aerial Systems Design and Analysis
Prerequisites: Graduate standing or permission of instructor; MAE 5313.
Description: This course covers concepts related to design and operation of unmanned systems focusing on unmanned aircraft, including remotely piloted and autonomous vehicles. History of unmanned systems. Design of unmanned air systems including concepts of operations, communications, payloads, control and navigation, multiple air vehicle architectures, cooperative control and ISR. Design requirements for unmanned versus manned vehicles. Operation in conflicted airspace. Aspects of other unmanned systems, including ground, surface, underwater and space vehicles.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5973 Unmanned Aerial Systems Propulsion
Prerequisites: Graduate standing or permission of instructor.
Description: This course will cover propulsion topics used on Unmanned Aerial Systems (UAS). These will include: Historical perspective on UAS propulsion systems; Classification of propulsion types; Propulsion requirements for UAV; Propeller performance and design; Internal combustion engine; Heavy-Fuel ICE; ICE Muffler design; Electric motor; Hybrid-Electric engine; Fuel Cell engine; Flapping Wing propulsion; Jet engine; Propulsion system integration and installation effects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 5983 Aircraft Certification and Test
Prerequisites: Graduate standing or consent of instructor.
Description: Exploration of the major engineering processes for airworthiness certification of manned and unmanned aircraft. Assessment of civil and military airworthiness regulations and their impact on certification program management and testing. Development of foundational concepts and processes for laboratory, ground and flight testing for airworthiness.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Mech & Aerospace Engr

MAE 5993 Microstructural Mechanics
Prerequisites: Graduate standing or consent of instructor.
Description: Build a framework to understand the various microstructures of materials with their respective roles in controlling mechanical properties. Grain size, orientation, surface facets, compositional gradients, and second or multiple phases, in combination with the three-dimensional arrangement of the various types of imperfections, together constitute the microstructure of a material. An emphasis will be placed on new research areas and exposure to methods for controlling and probing microstructures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6000 Doctoral Dissertation
Prerequisites: Admission to MAE PhD program and consent of the student's dissertation adviser.
Description: Independent research under the direct supervision of the student's doctoral dissertation adviser. Offered for variable credit, 1-15 credit hours, maximum of 42 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 6010 Advanced Study
Prerequisites: Approval of the student's advisory committee.
Description: Study and investigation under the supervision of a member of the faculty along lines of interest well advanced of and supported by the 5000-series courses. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mech & Aerospace Engr

MAE 6123 Advanced Processing of Materials
Prerequisites: Graduate standing or consent of instructor.
Description: Rationale for non-traditional machining; various non-traditional machining processes, including electro-discharge machining, electro-chemical machining, plasma arc-, microwave-, and laser assisted processing, waterjet (abrasive) cutting, ultrasonic machining, chemical machining, thermal assisted processing and electron beam machining.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6133 Surface Mechanics
Prerequisites: Consent of instructor.
Description: Models and solutions basic to surface studies. Equations of continuum mechanics, thermal field solutions at sliding interfaces, elasticity, plasticity. Applications of solution techniques to surface, surface layer and interface phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6143 Thermal Analysis of Manufacturing Processes
Prerequisites: Graduate standing and consent of instructor.
Description: Thermal analysis of various moving heat source problems encountered in a variety of manufacturing processes, including machining, grinding, polishing, casting, welding, energy beam cutting and other tribological applications such as meshing of gears, cams, bearings. Analysis of both transient and steady state conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6233 Turbulent Fluid Dynamics
Prerequisites: MAE 5233.
Description: Isotropic turbulence, turbulent wakes and jets, bound turbulent shear flows, transition, hydrodynamic stability and integral calculation methods for turbulent boundary layers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6263 Computational Fluid Dynamics
Prerequisites: Graduate standing; MAE 5093 and MAE 5233.
Description: Numerical method and computational tool development for solving canonical partial differential equations and incompressible Navier-stokes equations employing both finite difference and finite volume algorithms. Strategies for improved pressure-velocity coupling and implicit time-stepping.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6293 Geophysical Fluid Dynamics
Prerequisites: MAE 5233.
Description: Development of governing fluid dynamic equations for high-Reynolds number flows, including their stability, their waves, and the influence of rotating and stratification as applied to geophysical and astro-physical fluid dynamics. Examples of problems studies include vortex dynamics in planetary atmospheres and protoplanetary disks, jet streams, and waves (Rossby, Poincare, inertial, internal gravity, and Kelvin) in the ocean and atmosphere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6313 Atmospheric Flight Control
Prerequisites: (MAE 4283 and MAE 4053) or (MAE/ECEN 5713 or MAE/ECEN 5473 or MAE 5923) or equivalent. Graduate standing or consent of instructor.
Description: Application of modern multivariable control and estimation techniques to aerospace flight vehicles. Fundamental tradeoffs between controller complexity and performance requirements, and translation of handing quality specifications into requirements for control system designs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6423 System Identification
Prerequisites: MAE 5473 or MAE 5713 or ECEN 5473 or ECEN 5713.
Description: Linear and nonlinear system modeling of random systems. Models of linear time-invariant systems, nonparametric methods and preliminary model development, parameter estimation methods, convergence and consistency, asymptotic distributions of parameter estimates, nonlinear modeling. Same course as ECEN 6423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6453 Adaptive Control
Prerequisites: MAE 5473 or ECEN 5473 or ECEN 5713 or MAE 5713.
Description: Analysis and design of control techniques which modify their performance to adapt to changes in system operation. Review of systems analysis techniques, including state variable representations, linearization, discretization, covariance analysis, stability, and linear quadratic gaussian design. On-line parameter estimation, model reference adaptive systems, self-tuning regulators, stable adaptive systems. Same course as ECEN 6453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6463 Advances in Nonlinear Control
Prerequisites: MAE 5463 or ECEN 5463.
Description: Introduction to vector fields and Lie algebra: controllability and observability of nonlinear systems; local decompositions; input-output and state-space representation on nonlinear systems; feedback linearization; controlled invariance and distribution; control of Hamiltonian systems. Same course as ECEN 6463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6483 Robust Multivariate Control Systems
Prerequisites: MAE 5713 or ECEN 5713.
Description: Introduction to multivariable systems: SISO robustness vs. MIMO robustness; multivariable system poles and zeros; MIMO transfer functions; multivariable frequency response analysis; multivariable Nyquist theorem; performance specifications; stability of feedback systems; linear fractional transformations (LFT's); parameterization of all stabilizing controllers; structured singular value; algebraic ricatti equations; H2 optimal control; H-infinity controller design. Same course as ECEN 6483.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

MAE 6843 Convection Heat Transfer
Prerequisites: MAE 5233 or equivalent.
Description: Advanced convective heat transfer in laminar and turbulent flows over external surfaces and inside channels. Heat transfer at high velocities, free convection boundary layers, and mass transfer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mech & Aerospace Engr

Undergraduate Programs

- Aerospace Engineering, BSAE (p. 2436)
- Mechanical Engineering, BSME (p. 2438)
- Mechanical Engineering: Fire Protection Systems, BSME (p. 2440)
- Mechanical Engineering: Petroleum, BSME (p. 2442)
- Mechanical Engineering: Pre-Medical, BSME (p. 2444)

Graduate Programs

The School of Mechanical and Aerospace Engineering offers programs leading to the degree of Master of Science and Master of Engineering in Mechanical and Aerospace Engineering, and the degree of Doctor of Philosophy in Mechanical and Aerospace Engineering. The Master of Science and the Doctor of Philosophy degrees offer an option in Unmanned Aerial Systems and prepare the graduate for research and development positions in industry and government, or for the teaching profession in engineering. They are distinguished by the incorporation of a research component.

The Master of Engineering degree is a coursework only degree that prepares the graduate for technical leadership positions in industry and government.

Students may select coursework and participate in research or design projects in the following areas: aerospace & mechanical thermal systems, dynamics & controls, fluid mechanics, solid mechanics, mechanics of materials, materials & manufacturing and unmanned & aerospace systems integration, and design. Students are encouraged to take courses in mathematics and science and in other fields of engineering which fit into their programs.

Admission Requirements

Admission to the Graduate College is required of all students pursuing the MS, ME, or PhD degree. Graduation from a mechanical or aerospace engineering curriculum accredited by ABET, with scholastic performance

distinctly above average, qualifies the student for admission to the School of Mechanical and Aerospace Engineering as a candidate for the MS, ME, and PhD degrees. Graduates from disciplines other than mechanical or aerospace engineering may be admitted if an evaluation of their transcripts by the School of Mechanical and Aerospace Engineering indicates they are prepared to take graduate-level coursework in mechanical or aerospace engineering or can be expected to do so after a reasonable amount of prerequisite work.

Degree Requirements

All degree programs follow an approved plan of study designed to satisfy the individual goals of the student, while conforming to the general requirements of the School of Mechanical and Aerospace Engineering and the Graduate College.

The Master of Science degree program requires 24 credit hours of approved graduate-level coursework and a suitable research thesis of six credit hours. The Master of Engineering degree requires 30 credit hours of approved graduate-level coursework and 3 hours of capstone experience coursework.

The Doctor of Philosophy degree requires a minimum of 60 credit hours beyond the master's degree consisting of 24-30 hours of formal coursework, 6 hours of Preliminary Examination credit and 24-30 hours of dissertation research credit. Qualified students may also enter the Ph.D. program directly with a Bachelor of Science degree. The direct to Ph.D. program requires a minimum of 90 credit hours beyond the Bachelor of Science degree consisting of 48-54 hours of formal coursework, 6 hours of Preliminary Examination credit and 30-36 hours of dissertation research credit.

Faculty

Rasim Guldiken, PhD—John Brammer Endowed Professor and Department Head
Dean of CEAT, Professor, Donald and Cathey Humphreys Endowed Chair: Hanchen Huang, PhD
Professor and Associate Dean, OSU-Tulsa, Director of the Helmerich Advance Technology Research Center, Director of the State EPSCOR Office for Oklahoma, and Helmerich Endowed Chair: Raman P. Singh, PhD
Regents Professor and Herrington Chair in Advanced Materials: Don A. Lucca, PhD, Drhc, CMfgE
Regents Professor and OG&E Energy Technology Chair: J.D. Spitler, PhD, PE
Regents Professor, Williams Chair and Director of Oklahoma Aerospace Institute for Research and Education: Jamey D. Jacob, PhD, PE
Professor, Noble Foundation Chair and Director, NASA Oklahoma Space Grant Consortium/ EPSCoR: Andrew S. Arena, Jr., PhD
Professor, Van Weathers Chair and Director of Zink Center: Daniel Fisher, PhD, PE
Professor, Albert H. Nelson, Jr. Chair: Sandip Harimkar, PhD
Professors: Christian Bach, PhD; Brian R. Elbing, PhD; Afshin J. Ghajar, PhD, PE (emeritus); James K. Good, PhD, PE (emeritus); Lawrence L. Hoberock, PhD, PE (emeritus); David G. Lilley, PhD, DSc, PE (emeritus); Richard L. Lowery, PhD, PE (emeritus); Christopher E. Price, PhD, PE (emeritus); Gary E. Young, PhD, PE (emeritus)
Associate Professors: Aurelie Azoug, PhD; He Bai, PhD; Frank W. Chambers, PhD, PE (emeritus); Imraan Faruque, PhD; Jay C. Hanan, PhD; Kaan Kalkan, PhD; Kursat Kara, PhD; James M. Manimala, PhD; Kurt P. Rouser, PhD; Ritesh Sachan, PhD; Khaled A. Sallam, PhD; Arvind Santhanakrishnan, PhD; Shuodao Wang, PhD; Yujiang "Mike" Xiang, PhD
Assistant Professors: Jacob Bair, PhD; Anthony Comer, PhD; Atanu Halder, PhD; Jerome Hausselle, PhD; Sicheng Kevin Li, PhD; Haotian Liu, PhD; Hemanth Manjunatha, PhD; Ardeshir Moftakhari, PhD; Pranjal Nautiyal, PhD; Ryan C. Paul, PhD; Chitrarth Prasad, PhD; Wei Zhao, PhD
Career Track Faculty: Alyssa Avery, PhD (teaching assistant professor); Gus Azevedo, PhD (research assistant professor); Jeffrey Callicoat, PhD (teaching associate professor); Joseph P. Conner, Jr., PhD (teaching associate professor); Ronald D. Delahoussaye, PhD (emeritus); Paul Elliott, PhD (research assistant professor); Anthony Hassett, PhD (teaching assistant professor); Ben Loh, PhD (research assistant professor); Ehsan Moallem, PhD (teaching associate professor); Laura Southard (teaching associate professor)

Aerospace Engineering, BSAE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 123

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course Designated (H)		3
Course Designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114 (LN)	University Physics II (LN)	4
Exploring Society & Human Behavior (S)		
Course Designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [1]	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
Select one of the following:		3
ASTR 1013	The Solar System (N)	
ASTR 1023	Stars, Galaxies, Universe (N)	
BIOL 1113	Introductory Biology (N)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) ((May not be used for degree credit with CHEM 1414))	
CHEM 3053	Organic Chemistry I	
GEOL 1114	Physical Geology (LN)	
GEOL 3413	Petroleum Geology for Engineers	
PHYS 3213	Optics	
PHYS 3313	Introduction to Semiconductor Device Physics	
PHYS 3713	Modern Physics	
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Choose one of the below laboratory options: [1]		3
OPTION 1		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two more hours from the following labs:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [2]	
Hours Subtotal		**32**
Upper Division Major Requirements [2]		
ENSC 3313	Materials Science	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3253	Applied Aerodynamics and Performance	3
MAE 3293	Fundamentals of Aerodynamics	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3
MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
MAE 4223	Aerospace Engineering Laboratory	3
MAE 4243	Aerospace Propulsion and Power	3

MAE 4283	Aerospace Vehicle Stability and Control	3
MAE 4374	Aerospace System Design	4
MAE 4513	Aerospace Structures	3
Upper Division Elective Requirements		
3 hours of technical elective to be selected from the following list:		3
3000-level or above from:		
ENGR 3030	Co-op Industrial Practice II	
MATH 3583	Introduction to Mathematical Modeling	
or from BAE, CHE, CIVE, ECEN, IEM, MAE, PETE		
4000-level or above courses from:		
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ENGR 4030	Co-op Industrial Practice III	
Or from MATH, MET, or STAT		
Hours Subtotal		**51**
Total Hours		**123**

[1]

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

[2]

Grades of "C" or higher in all Upper Division Major Requirements courses

Graduation Requirements

1. A "C" or better is required in each course taken that is designated with footnote 1 or footnote 2.
2. The major engineering design experience, capstone course, is satisfied by MAE 4374 Aerospace System Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical Engineering, BSME

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 121

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course Designated (H)		3
Course Designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course Designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
Select one of the following:		3
ASTR 1013	The Solar System (N)	
ASTR 1023	Stars, Galaxies, Universe (N)	
BIOL 1113	Introductory Biology (N)	
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) ((May not be used for degree credit with CHEM 1414))	
CHEM 3053	Organic Chemistry I	
GEOL 1114	Physical Geology (LN)	
GEOL 3413	Petroleum Geology for Engineers	
PHYS 3213	Optics	
PHYS 3313	Introduction to Semiconductor Device Physics	
PHYS 3713	Modern Physics	
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming (1) [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Choose one of the below laboratory options: [1]		3
OPTION 1 (ENGR 2421 is required for this option)		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two more from the following labs:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [2]	
Hours Subtotal		**32**
Upper Division Major Requirements [2]		
ENSC 3313	Materials Science	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3233	Heat Transfer	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3
MAE 3524	Thermal Fluids Design	4
MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
Select 7 hours of the following 2 categories, selecting one course from each category so that both categories are represented:		*7*

Category I (Realization): [2]		
MAE 4243	Aerospace Propulsion and Power	
MAE 4263	Energy Conversion Systems	
MAE 4353	Mechanical Design II	
MAE 4363	Advanced Methods in Design	
MAE 4513	Aerospace Structures	
MAE 4623	Biomechanics	
MAE 4703	Design of Indoor Environmental Systems	
MAE 4713	Thermal Systems Realization	
MAE 4723	Refrigeration Systems Design	
Category II (Capstone Design): [2]		
MAE 4344	Design Projects	
MAE 4354	Aerospace Systems Design for Mechanical Engineers	
MAE 4374	Aerospace System Design	
Upper Division Elective Requirements		
6 hours of MAE electives to be selected from the following list, or from courses in the Category I listed above, but not used to satisfy the category requirement:		6
MAE 3033	Design of Machines and Mechanisms	
MAE 3123	Manufacturing Processes	
MAE 3223	Thermodynamics II	
MAE 3253	Applied Aerodynamics and Performance	
MAE 3293	Fundamentals of Aerodynamics	
MAE 4003	Introduction to Autonomous Systems	
MAE 4010	Mechanical and Aerospace Engineering Projects	
MAE 4053	Automatic Control Systems	
MAE 4063	Mechanical Vibrations	
MAE 4273	Experimental Fluid Dynamics	
MAE 4313	Advanced Processing of Engineered Materials	
MAE 4333	Mechanical Metallurgy	
MAE 4583	Corrosion	
MAE 4733	Mechatronics Design	
3 hours of technical elective to be selected from the following list (or from courses in the Category I listed above, but not used to satisfy the category requirement):		3
3000-level or above from:		
ENGR 3030	Co-op Industrial Practice II	
MATH 3583	Introduction to Mathematical Modeling	
Or from BAE, BIOL, BIOC, CHE, CHEM, CIVE, CS, ECEN, IEM, GEOL, LSB, MAE, PETE, or PHYS		
4000-level or above courses from:		
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ENGR 4030	Co-op Industrial Practice III	
ENGR 4403	Interdisciplinary Senior Design	
Or from MATH, MET, or STAT		
Hours Subtotal		**49**
Total Hours		**121**

1

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

2

Grades of "C" or higher in all Upper Division Major Requirements courses and ME Realization Category course and Capstone Design Category course.

Graduation Requirements

1. A "C" or better is required in each course that is designated with footnote 1 or footnote 2.
2. The major engineering design experience, capstone course, is satisfied by MAE 4344 Design Projects or MAE 4354 Aerospace Systems Design for Mechanical Engineers or MAE 4374 Aerospace Systems Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical Engineering: Fire Protection Systems, BSME

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 130

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Courses designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming (1) [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Choose one of the below laboratory options: [1]		3
OPTION 1 (ENGR 2421 is required for this option)		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two more from the following labs:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [2]	
Hours Subtotal		**29**
Upper Division Major Requirements [2]		
ENSC 3313	Materials Science	3
FPST 1213	Fire Safety Hazards Recognition	3
FPST 1373	Fire Suppression and Detection Systems	3
FPST 2243	Design and Analysis of Sprinkler Systems	3
FPST 3373	Fire Dynamics	3
FPST 4143	Industrial Ventilation and Smoke Control	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3233	Heat Transfer	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3
MAE 3524	Thermal Fluids Design	4
MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
Select 7 hours of the following 2 categories, selecting one course from each category so that both categories are represented:		*7*
Category I (Realization): [2]		
MAE 4243	Aerospace Propulsion and Power	
MAE 4263	Energy Conversion Systems	
MAE 4353	Mechanical Design II	
MAE 4363	Advanced Methods in Design	
MAE 4513	Aerospace Structures	
MAE 4703	Design of Indoor Environmental Systems	

MAE 4713	Thermal Systems Realization	
MAE 4723	Refrigeration Systems Design	
Category II (Capstone Design): [2]		
MAE 4344	Design Projects	
MAE 4354	Aerospace Systems Design for Mechanical Engineers	
MAE 4374	Aerospace System Design	
Upper Division Elective Requirements		
3 hours of MAE electives to be selected from the following list, or from courses in the Category I listed above, but not used to satisfy the category requirement:		3
MAE 3033	Design of Machines and Mechanisms	
MAE 3123	Manufacturing Processes	
MAE 3223	Thermodynamics II	
MAE 3253	Applied Aerodynamics and Performance	
MAE 3293	Fundamentals of Aerodynamics	
MAE 4003	Introduction to Autonomous Systems	
MAE 4010	Mechanical and Aerospace Engineering Projects	
MAE 4053	Automatic Control Systems	
MAE 4063	Mechanical Vibrations	
MAE 4273	Experimental Fluid Dynamics	
MAE 4313	Advanced Processing of Engineered Materials	
MAE 4333	Mechanical Metallurgy	
MAE 4583	Corrosion	
MAE 4733	Mechatronics Design	
3 hours of FPST/CET electives to be selected from the following list, or from courses in the Category I listed above, but not used to satisfy the category requirement:		3
3000-level or above from:		
CET 4443	Construction Safety and Loss Control	
FPST 3113	Advanced Special Hazard Suppression and Detection	
FPST 3383	Building Electrical Systems	
FPST 4213	Advanced Building Design and Analysis	
FPST 4383	Fire and Evacuation Modeling	
Hours Subtotal		**61**
Total Hours		**130**

1

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

2

Grades of "C" or higher in all Upper Division Major Requirements courses and ME Realization Category course and Capstone Design Category course.

Graduation Requirements

1. A "C" or better is required in each course taken that is designated with footnote 1 or footnote 2.
2. The major engineering design experience, capstone course, is satisfied by MAE 4344 Design Projects or MAE 4354 Aerospace Systems Design for Mechanical Engineers or MAE 4374 Aerospace Systems Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical Engineering: Petroleum, BSME

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 130

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN) [1]	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN) [1]	4
Exploring Society & Human Behavior (S)		
Course designated (GS)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
GEOL 3413	Petroleum Geology for Engineers	3
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Select one of the below laboratory options: [1]		3
OPTION 1 (ENGR 2421 is required for this option)		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two from more from the following labs:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [2]	
Hours Subtotal		**32**
Upper Division Major Requirements [2]		
ENSC 3313	Materials Science	3
GEOL 4323	Applied Well Log Analysis for Engineers	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3233	Heat Transfer	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3
MAE 3524	Thermal Fluids Design	4
MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
PETE 4303	Petroleum Rocks and Fluids	3
PETE 4313	Drilling and Well Completions	3
PETE 4333	Production Engineering	3
PETE 4343	Reservoir Engineering and Well Testing	3
Select 7 hours of the following 2 categories, selecting one course from each category so that both categories are represented:		7
Category I (Realization): [2]		
MAE 4243	Aerospace Propulsion and Power	
MAE 4263	Energy Conversion Systems	
MAE 4353	Mechanical Design II	
MAE 4363	Advanced Methods in Design	
MAE 4513	Aerospace Structures	

MAE 4623	Biomechanics	
MAE 4703	Design of Indoor Environmental Systems	
MAE 4713	Thermal Systems Realization	
MAE 4723	Refrigeration Systems Design	
Category II (Capstone Design): [2]		
MAE 4344	Design Projects	
MAE 4354	Aerospace Systems Design for Mechanical Engineers	
MAE 4374	Aerospace System Design	
Upper Division Elective Requirements		
3 hours of MAE electives to be selected from the following list, or from courses in the Category I listed above, but not used to satisfy the category requirement:		3
MAE 3033	Design of Machines and Mechanisms	
MAE 3123	Manufacturing Processes	
MAE 3223	Thermodynamics II	
MAE 3253	Applied Aerodynamics and Performance	
MAE 3293	Fundamentals of Aerodynamics	
MAE 4003	Introduction to Autonomous Systems	
MAE 4010	Mechanical and Aerospace Engineering Projects	
MAE 4053	Automatic Control Systems	
MAE 4063	Mechanical Vibrations	
MAE 4273	Experimental Fluid Dynamics	
MAE 4313	Advanced Processing of Engineered Materials	
MAE 4333	Mechanical Metallurgy	
MAE 4583	Corrosion	
MAE 4733	Mechatronics Design	
Hours Subtotal		**58**
Total Hours		**130**

1

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

2

Grades of "C" or higher in all Upper-Division Major Requirements courses and ME Realization Category course and Capstone Design Category course.

Graduation Requirements

1. A "C" or better is required in each course taken that is designated with footnote 1 or footnote 2.
2. The major engineering design experience, capstone course, is satisfied by MAE 4344 Design Projects or MAE 4354 Aerospace Systems Design for Mechanical Engineers or MAE 4374 Aerospace Systems Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Mechanical Engineering: Pre-Medical, BSME

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 135

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II [1]	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H) [2]		3
Courses designated (DH) [2]		3
Reasoning in the Natural Sciences (N) [1]		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1515	Chemistry II (LN) [1]	5
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
Courses designated (GS) [2]		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
MATH 2163	Calculus III [1]	3
MATH 2233	Differential Equations [1]	3
Basic Science		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN) [1]	4
Engineering and Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE [1]	2
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2123	Elementary Dynamics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2213	Thermodynamics [1]	3
ENSC 2613	Introduction to Electrical Science [1]	3
Select one of the below laboratory options: [1]		3
OPTION 1 (ENGR 2421 is required for this option)		
ENGR 2421	Engineering Data Acquisition Controls Lab	
and two more from the following options:		
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3311	Material Science Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
OPTION 2		
MAE 3113	Measurements and Instrumentation [3]	
Hours Subtotal		**44**
Upper Division Major Requirements [3]		
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
ENSC 3313	Materials Science	3
IEM 3503	Engineering Economic Analysis	3
MAE 3013	Engineering Analysis and Methods I	3
MAE 3153	Introduction to MAE Design	3
MAE 3233	Heat Transfer	3
MAE 3333	Fundamental Fluid Dynamics	3
MAE 3324	Mechanical Design I	4
MAE 3403	Computer Methods in Analysis and Design	3
MAE 3524	Thermal Fluids Design	4
MAE 3724	Dynamic Systems Analysis and Introduction to Control	4
MICR 3033	Cell and Molecular Biology	3
Select 7 hours of the following 2 categories, selecting one course from each category so that both categories are represented:		*7*
Category I (Realization): [3]		
MAE 4243	Aerospace Propulsion and Power	
MAE 4263	Energy Conversion Systems	
MAE 4353	Mechanical Design II	
MAE 4363	Advanced Methods in Design	

MAE 4513	Aerospace Structures	
MAE 4623	Biomechanics	
MAE 4703	Design of Indoor Environmental Systems	
MAE 4713	Thermal Systems Realization	
MAE 4723	Refrigeration Systems Design	
Category II (Capstone Design): [3]		
MAE 4344	Design Projects	
MAE 4354	Aerospace Systems Design for Mechanical Engineers	
MAE 4374	Aerospace System Design	
Upper Division Elective Requirements		
3 hours of MAE electives to be selected from the following list, or from courses in the Category I listed above, but not used to satisfy the category requirement:		3
MAE 3033	Design of Machines and Mechanisms	
MAE 3123	Manufacturing Processes	
MAE 3223	Thermodynamics II	
MAE 3253	Applied Aerodynamics and Performance	
MAE 3293	Fundamentals of Aerodynamics	
MAE 4003	Introduction to Autonomous Systems	
MAE 4010	Mechanical and Aerospace Engineering Projects	
MAE 4053	Automatic Control Systems	
MAE 4063	Mechanical Vibrations	
MAE 4273	Experimental Fluid Dynamics	
MAE 4313	Advanced Processing of Engineered Materials	
MAE 4333	Mechanical Metallurgy	
MAE 4583	Corrosion	
MAE 4733	Mechatronics Design	
The following are suggested, but not required:		
BIOC 3653	Survey of Biochemistry	
BIOL 3023	General Genetics	
BIOL 3204	Physiology	
BIOL 4134	Embryology	
CHEM 1314 is recommended with CHEM 1515 to meet the Oklahoma medical schools' requirement for 9 hours of inorganic chemistry		
Hours Subtotal		**51**
Total Hours		**135**

1

MAE requires grades of "C" or better for any course that is a pre-requisite or co-requisite to a required course on the degree plan.

2

Medical school recommendations: Humanities Courses (H) - select one from PHIL and one from ENGL. Society and Human Behavior Course (S) - select from ANTH, PSYC, or SOC.

3

Grades of "C" or higher in all Upper-Division Major Requirements courses and ME Realization Category course and Capstone Design Category course.

Note: The entrance requirements of medical schools of choice should be reviewed to ensure an application is competitive.

Graduation Requirements

1. A "C" or better is required in each course taken that is designated with footnote 1 or footnote 3.
2. The major engineering design experience, capstone course, is satisfied by MAE 4344 Design Projects or MAE 4354 Aerospace Systems Design for Mechanical Engineers or MAE 4374 Aerospace Systems Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

School of Architecture

The School of Architecture, founded in 1909, offers professional degree programs in both architecture and architectural engineering. The integration of these programs through shared faculty, facilities and coursework is a major strength of the School. It is one of the few integrated programs in the United States, and as such produces graduates who are particularly prepared for the interdisciplinary nature of professional practice. Additionally, a Bachelor of Science in Design Studies is offered, where the distinct paths of Design Management and Leadership, Design Thinking and Communication, and Design, Culture and Urban Studies can be pursued. The School of Architecture is a department in the College of Engineering, Architecture and Technology, and therefore benefits from excellent state-of-the-art resources which significantly enhance the student experience.

Oklahoma State University graduates are recruited by the leading architectural and architectural engineering firms across the United States and beyond. School of Architecture graduates are routinely accepted into premier graduate schools in architecture, engineering, and related fields. The Oklahoma State University School of Architecture is particularly proud of having among its alumni many of the leaders of the best firms in the country, an AIA Gold Medalist (the highest award given to an architect), and presidents of the American Institute of Architects (AIA), the National Architectural Accreditation Board (NAAB), the Accreditation Board for Engineering and Technology (ABET), and the National Council of Structural Engineering Associations (NCSEA).

Mission and Goals

Architecture is the creative blend of the art and science of designing a setting for human life. It is unique among today's professions in that its successful practice requires a blend of traits normally considered less than compatible: human empathy, artistic creativity, technological competence, organizational acumen, and economic awareness. In contrast to other fine arts, architecture is rarely self-generated; it is rather a creative response to a stated or perceived human need. It must, therefore, be more user-oriented than fine art alone and more humane than pure science. Its design solutions are simultaneously subjective and objective, while striving to be functionally, technically, and economically sound. Yet, in a seemingly insoluble contradiction, the keenest technological and economic functionality will fall far short of becoming architecture unless it also strongly appeals to spiritual and emotional values. When one thinks of the environment, one cannot help but recall architectural images: pyramids in Egypt, Greek and Roman temples, gothic cathedrals, medieval castles, industrial cities, modern skyscrapers and dwellings, or entire cities which significantly express the culture and values of the people who live or lived there.

The mission of the School of Architecture is to cultivate a collaborative learning community focused upon critical thinking and ethical responsibility. To do so, the faculty embraces established fundamentals and encourage the exploration of emerging innovations in design. The vision of the school is to empower students to make creative contributions in the cause of architecture.

The School of Architecture endeavors to instill in each individual a sensitivity to human needs, a genuine concern for quality, integrity and high ideals, a positive attitude for life-long learning, and personal confidence in one's ability to make positive contributions to society.

The School's primary goal is to provide excellence in professional education for students preparing to enter the private practice of architecture or architectural engineering, or affiliated disciplines. The School is proud to educate students that will become licensed professionals in their field and assume positions of leadership within the profession and society.

Accreditation

The School of Architecture offers two separately accredited professional degree programs. The Bachelor of Architecture degree, BArch, is accredited by the NAAB. The Bachelor of Architectural Engineering degree, BArchE, is accredited by the Accreditation Board for Engineering and Technology (ABET http://www.abet.org (http://www.abet.org/)) as an engineering program. Both programs require approximately five years of study to complete. In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB) is the sole agency authorized to accredit U.S. professional degree programs in architecture offered by institutions with U.S. regional accreditation. NAAB recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year, three-year or two-year term of accreditation, depending on the extent of its conformance with established educational standards. Doctor of Architecture and Master of Architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree. The Oklahoma State University School of Architecture offers the following NAAB-accredited degree programs - BArch. (154 undergraduate credits).

The next NAAB accreditation visit will occur in 2026.
The next ABET accreditation visit will occur in 2027.

Architecture

Architecture is the complex synthesis of creatively solving problems involving both art and science through the disciplined orchestration of image-making, activity organization, technological applications, legal constraints, and budgetary parameters which together express culture, enhance quality of life and contribute to the environment.

Education in architecture consists of on-campus classroom and studio courses, where the focus is on observation and experimentation, and hands-on learning. The intellectual climate stimulates inquiry, introduces principles and values, and teaches the discipline necessary to work in collaboration with others. The goal of the program is to educate future leaders within the architecture profession.

In the pre-professional portion of the architectural program (approximately two years of study), the focus is on the fundamental principles of design and technology supplemented by appropriate general education courses in English, social sciences, natural sciences, math, and humanities. These courses allow students to assimilate a beginning knowledge base in architecture along with a broader liberal-based component to their education.

Students who demonstrate proficiency in this portion of the program by meeting a specific set of admission criteria are eligible for admission to the professional program in architecture.

The professional program in architecture (typically three years) builds on the knowledge acquired in the pre-professional curriculum. Students expand their design and problem-solving abilities through a sequential series of design studios informed by courses dealing with structure, systems and materials, building technology, the history

and theory of architecture, and business and project management principles. In addition, students fully utilize the computer as a design and communication tool in the problem-solving process.

The design studio is the center of the School's educational program. It is the setting where students and faculty work most closely together, and where all specialized study and knowledge comes together as a synthesized study in design. The record of OSU students' achievements in the design studios is evidenced by the success in national and international architectural design competitions.

Architectural Engineering

Architectural engineering is a profession that combines the art and science known as architecture with a detailed knowledge of fundamental and applied engineering principles. In its broadest sense, it involves the creative application of science and technology to the design of structures meant for human occupancy. Architectural engineering differs from architecture in its focus upon the design of elements, systems and procedures for buildings, rather than the design of buildings themselves. Architectural engineers practice in a wide variety of professional engineering settings such as consulting firms, architectural firms, industrial or commercial organizations and governmental agencies.

The objective of the Bachelor of Architectural Engineering program is to provide a professional education to engineering students in building-related systems. OSU graduates possess broad-based knowledge, skills and judgment that prepare them to succeed in the profession of architectural engineering or in further studies at the graduate level. The program is designed to prepare students to contribute to society as professional engineers dealing with analysis, design, and related activities within the construction industry. The program utilizes the broad resources of the University and a close relationship with the architectural program to provide in-depth understanding of professional engineering and sensitivity to other qualitative concerns related to the building environment faced by architectural engineers.

The primary focus of the architectural engineering program at OSU is the safe and economical design of technical systems used in buildings. Structural systems must withstand the various forces of nature such as gravity, winds and earthquakes while also accommodating users. These systems require a working knowledge of the mechanics of materials commonly used for building structures such as steel, timber, masonry, and reinforced concrete. Within the major of Architectural Engineering, the School offers a focus either in Structural Engineering or a focus in Construction Project Management.

In the pre-professional portion of the architectural engineering program (approximately two years of study), the focus is on the underlying scientific and mathematical principles of engineering and basic design principles supplemented by appropriate general education courses in English, social sciences, natural sciences, math, and humanities. These courses allow students to assimilate a beginning knowledge base in architecture and engineering along with a broader liberal-based component to their education. Students who demonstrate proficiency in this portion of the program by meeting a specific set of admission criteria are eligible for admission to the professional program in architectural engineering.

The professional program in architectural engineering (typically two and a half years) builds on the scientific and architectural knowledge acquired in the pre-professional curriculum. Students acquire detailed technical engineering knowledge and problem-solving abilities through a series of progressively more detailed and comprehensive courses and studios.

Each architectural engineering course builds upon the preceding architectural engineering courses to develop in students the ability to identify and solve meaningful architectural engineering problems. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. This coursework includes sensitizing students to socially related technical problems and their responsibilities as engineering professionals to behave ethically and protect public safety. The program culminates in a capstone design course in which the students integrate analysis, synthesis, and other abilities they have developed throughout the earlier portions of their study.

An integral part of this educational continuum from basic knowledge through comprehensive architectural engineering design is learning experiences that facilitate the students' abilities to function effectively in both individual and team environments. Students are exposed to a wide variety of problems dealing with contemporary issues in many contexts. Moreover, the program provides every graduate with learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and used as a part of the students' problem-solving process. Finally, the students' experience in solving ever-more-challenging problems provides them with the ability to continue to learn independently throughout their professional careers.

The Architectural Engineering Program Educational Objectives expected of program graduates a few years after graduation are as follows. Graduates will:

- Be successful in pursuing a graduate degree if they choose to continue their education past a Bachelor's degree.
- Be valued members of interdisciplinary design teams through collaboration during the design and construction process.
- Excel in their careers, displaying leadership, initiative, ethical character, technical ability, and engineering skills.
- Utilize their education in architectural engineering to contribute to society as licensed professional engineers.
- Maintain membership in professional organizations, have an awareness of emerging technologies in the field, and have a positive attitude towards advancing their professional skills through life-long learning.

The architectural engineering program has adopted the following student outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The program outcomes were adopted with the concept that they would provide students with the educational experience necessary to successfully achieve the longer-term program educational objectives.

Architectural Design Studies

The Bachelor of Science in Architectural Design Studies prepares students for a diverse range of fields in industry and beyond. It is designed to provide a general understanding of architectural issues for those students who wish to pursue a design-related career. The purpose of this degree plan is to allow students to have the opportunity of an array of career paths available to them, beyond the roles of traditional professional practice.

There are three options within this degree: Design Management and Leadership, Design Thinking and Communication, and Design, Culture, and Urban Studies. After foundational coursework, students pursue a combination of core and elective coursework governed by their selected concentration. This degree is not accredited by NAAB, and therefore if the graduate wished to pursue professional licensure as an Architect through the Architects Registration Exam, it may only be allowable in some states depending upon the regulations of that state. The BS degree, however, could become a platform for Graduate-level studies in Business Administration, Strategic Communication, Urban Planning, etc.

Undergraduate Curriculum

The programs in architecture and architectural engineering are approximately five years long and offer professional degrees of Bachelor of Architecture and Bachelor of Architectural Engineering. The Bachelor of Science in Architectural Design Studies is a four-year degree plan.

Professional and liberal study electives provide extensive opportunities for educational breadth and depth. Minor plans of study are also available from the School of Architecture; the Architectural History/Theory minor (ASHT), the Architecture and Entrepreneurship minor (ASAE). A minor in Design (ASDS) is available for non-majors. A twelve-credit hour Graduate Certificate focused upon the Integrative Design of the Building Envelope is also available.

Undergraduate Admission

Students who satisfy the University admission requirements and CEAT Admissions standards are eligible to enroll for the first two years of the program (pre-Professional School). Admissions into Design Studio I, however, is dependent upon a student's progress in the curricula, with special attention paid to position within the math and science string of Calculus, Physics, and Statics. Upon completion of the first two years, the most qualified students are selected, upon application, by the School for admission to the upper division (Professional School). Admission to the Professional School of Architecture and Architectural Engineering is based upon academic achievement and professional potential. Admission criteria are subject to annual review by the School and may be obtained directly from the School.

Transfer students are required to furnish transcripts and course descriptions for previous classroom courses, as well as a portfolio with examples of previous studio work. Evaluation and enrollment by the School are on a course-by-course basis for all transfer students.

General Education

All students of OSU are required to complete 40 hours of general education coursework. English composition, American History, Political Science, Social Sciences, Basic Science and Mathematics are part of the General Education requirements. Some required coursework in History and Theory of Architecture can be used for General Education (H) credit.

Electives

Electives should be selected to comply with the appropriate undergraduate degree requirements for the program. (See 3.2 "Changes in Degree Requirements" in the "University Academic Regulations (http://catalog.okstate.edu/university-academic-regulations/)" section of the Catalog.) These requirements assure compliance with institutional and accreditation criteria.

Study Abroad

The School of Architecture is committed to preparing its graduates for the professional opportunities presented by the expanding global economy. As part of this preparation, the School requires all students in the BArch and BS Architectural Design Studies degree paths to participate in one of its summer study-abroad courses of at least four weeks in length. Students study, in an organized and disciplined fashion, major examples of modern and historic architecture, including urban issues in a range of places outside the United States. Analytic and artistic sketching skills, descriptive writing, and other forms of observational research and record keeping are important in these courses of study.

Alternatively, students may elect to spend a semester abroad, which would meet the conditions of the degree plans as well. At least a year before a student plans to study a semester abroad, foreign university program and coursework must be coordinated with the School of Architecture advisors and the OSU Study Abroad Office to ensure that courses taken abroad meet the requirements of the degree plan.

Experience has shown that participation in a study-abroad program significantly increases a student's level of maturity, independent thinking, and cultural and social awareness of others. Knowing the values and accomplishments of other cultures also makes a student a better and more responsible citizen of his or her own country.

Faculty and Facilities

School of Architecture faculty have extensive academic and professional experience as successful practicing architects and architectural engineers. These experiences benefit the students through consideration and discussion of real-world issues that affect architectural and architectural design projects.

The school moved into the Donald W. Reynolds School of Architecture Building, a newly renovated facility in 2009, which provides spacious design studios, a large expanded architectural library, a day-lighting lab, a workshop, classroom facilities and many other amenities. The Donald

W. Reynolds School of Architecture Building received an AIA Oklahoma Honor Award recognizing it for outstanding design in 2011.

Computers

All School of Architecture students enrolled in either the architecture or architectural engineering programs are required to purchase a laptop computer as they enter the design studio sequence. Updated specifications for the computer and software are provided each year and posted to the School's website.

Student Work

Projects submitted for regular class assignments may be retained by the School for archival and accreditation purposes. All work not retained for this purpose will be returned to the student.

Student Body

Annual student enrollment is approximately 400 students.

Academic Advising

Students admitted to CEAT and who wish to study in the School of Architecture are advised by the Architecture Academic Advisors. The College's Office of Student Academic Services also has the capability to provide advisement for all entering freshmen pre-professional architecture and architectural engineering students.

Each student is personally advised in the planning and scheduling of his or her coursework and is counseled and advised individually on matters of career choice, his or her activities at OSU, and on other academic matters. A digital academic file is created for each student at the time of initial enrollment.

Admission to Professional School

Students applying for admission to the Professional School in Architecture or Architectural Engineering must first meet the required criteria established for each program. Applicants will be selected based upon their performance in the first- and second-year Architecture and Architectural Engineering curricula. Particular courses in the curricula, which have proven to be good indicators of success in these two programs, will be factored with a multiplier to increase their influence in the selection procedure. To be considered for either professional school program, applicants must:

1. Complete a minimum of 55 credit hours of coursework (applicable to the degree plan) prior to admission to professional school.
2. Complete the following required first- and second-year courses with a grade of 'C' or better.
   a. For the Architecture program: ARCH 1211, 1216, 2116, 2216, 2252, 2183, 2283, 2263, MATH 2114, PHYS 1114 or 2014, ENSC 2113, and ENGL 1113.
   b. For the Architectural Engineering program: ARCH 1211, 1216, 2116, 2252, 2003, 2263, MATH 2114, PHYS 2014, ENSC 2113, ENSC 2143, ENGR 1412, and ENGL 1113.
3. Achieve a grade of "C" or better in all required ARCH prefix courses, substitutes for ARCH prefix courses, and prerequisites for ARCH prefix courses.
4. Achieve a 2.8 or higher Selection Grade Point Average. The Selection Grade Point Average (SGPA) will be calculated for each applicant by multiplying course credit hours by the multiplier, multiplying by the numerical course grade, and dividing by the total factored hours. For consideration of admission to the Architecture program, several of the listed courses will have multipliers applied in the calculation of the Selection GPA. See the School of Architecture website for the Professional School Admissions Policy and the SGPA worksheet.

Double Degree

Applicants wishing to enter the Professional School in both the BArch and BArchE degree programs must apply for both programs and be accepted to each, independent of the other.

A double degree in the BArch and BS Architectural Design Studies is not permitted.

Declaration and/or Change of Program

When students apply to Professional School, they must indicate whether they are applying for the architecture program or the architectural engineering program. Further, architectural engineering applicants must indicate which degree option they wish to pursue. If changing programs, Architecture to Architectural Engineering or vice versa, a formal application and admission to the other program through the Professional School application and admission process is required.

Taking ARCH Prefix Courses When Not Admitted to Professional School

Students not admitted to Professional Schools may not enroll in any 3000-level or higher without prior permission of the instructor and Academic Advisor.

Transfer Students

Students wishing to transfer into Professional School of the OSU School of Architecture must apply for admission to the Professional School in the same manner as OSU students.

Completion of Required Pre-Professional School Courses

All students applying for admission to Professional School must satisfactorily complete all required courses for consideration by the end of the spring semester of the year of application.

Application and Notification Dates

Application for admission, readmission or transfer to the Professional School of Architecture and Architectural Engineering must be made by the last working day of April of the year of intended admission. Notification of selection decisions will normally be made soon after June 1st but not before a two-week period after Grade Reports have been received by the School—if there should be any problem with a grade that may impact acceptance to Professional School the student should contact the School immediately. Selected applicants must confirm acceptance of the offer of a position in Professional School by the date indicated in the letter of offer.

Reapplication

Applicants who are not admitted may reapply for admission to Professional School the following year; such applicants do not carry any priority or disadvantage but are included in the full application pool.

Graduation

Students will graduate with a Bachelor of Architecture or Bachelor of Architectural Engineering degree upon the successful completion of the requirements articulated on the degree sheet. Architectural Engineering students are encouraged to complete the Fundamentals of Engineering Exam before graduation. Architecture majors are encouraged to establish an NCARB record before graduation. It is important to note that the accredited degree is the first step toward professional licensure; internship experience hours and examination are needed post-graduation for a student to become a licensed architect or licensed professional engineer.

Graduates of the Bachelor of Science in Architectural Design Studies are encouraged to enter the profession in roles supporting the creation of architecture. In some states, professional licensure is possible; each state controls its own professional licensing requirements. Graduates of the BS degree may complement their undergraduate education with advanced studies at the Master's level.

Courses

ARCH 1112 Introduction to Architecture
Description: An introduction to the professions of architecture and architectural engineering. Previously offered as ARCH 1111. Same course as UNIV 1111.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 1211 Introduction to Architectural Studies
Description: An introduction to the professions of architecture and architectural engineering. No degree credit with credit in ARCH 1112.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 1216 Architectural Design Studio I
Prerequisites: Grade of "C" or better in ARCH 1112, or consent of instructor.
Description: Architectural graphics and design fundamentals. Students progressing in the Physics 1114/2014 and MATH 2144 course sequence will be given preference in enrollment. Additionally, students who have not received a grade for ARCH 1216 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture advisor.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2003 Architecture and Society (GH)
Description: Design, planning, and building considered in their social and aesthetic contexts. Some sections may be restricted to Architectural Engineering majors, see course offerings. May not be used for degree credit with ARCH 2183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ARCH 2100 Architectural Studies
Description: Beginning studies in graphics and design in architecture. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 2116 Architectural Design Studio II
Prerequisites: Grade of "C" or better in ARCH 1216.
Description: Students who have not received a grade for ARCH 2116 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture adviser. Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2183 History and Theory of Architecture I
Description: History and theory of global architecture prior to the year 1400 CE. May not be used for degree credit with ARCH 2003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2203 History and Theory of Architecture Since 1900
Prerequisites: ARCH 2003. Grade of "C" or better.
Description: History and theory of world architecture in the 20th century and beyond. May not be used for degree credit with ARCH 2283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2216 Architectural Design Studio III
Prerequisites: Grade of "C" or better in ARCH 1216 and ARCH 2116. Students who have not received a grade for ARCH 2216 will be given first priority in enrollment. Students who have received a grade in this course will be admitted on a space available basis and at the discretion of the school head and architecture adviser.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 2252 Design Communication I: Visual and Graphic Acuity
Prerequisites: Co-requisite enrollment in ARCH 2116 or permission of instructor.
Description: Introduction to the communication strategies unique to the professions of architecture and architectural engineering.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2263 Building Systems
Prerequisites: Grade of "C" or better in ARCH 1216 and ARCH 2116.
Description: Architectural, structural, and environmental control systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 2283 History and Theory of Architecture II (H)
Description: A study of mankind's accomplishments exhibited in architecture from the renaissance to the present day. May not be used for degree credit with ARCH 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 2890 Honors for Topics in Architecture
Prerequisites: Honors student standing.
Description: Honors Topics course to be used as an Add on for students concurrently enrolled in other ARCH courses, or can be used as a stand-alone course. Enrichment experiences to enhance the understanding of Architectural design. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Honors Credit

ARCH 3033 Design Methods
Prerequisites: ARCH 2216 or permission of instructor.
Description: Investigations in design problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3043 Structural Loadings in Architecture
Prerequisites: "C" or better in ENSC 2143, and/or co-requisite enrollment in ARCH 3143.
Description: An exploration of types of loadings and their application in the design of building structures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3083 History and Theory of Renaissance and Baroque Architecture (H)
Prerequisites: ARCH 2003. Grade of "C" or better. Or ARCH 2283. Grade of "C" or better.
Description: History and theory of Renaissance and Baroque architecture in the western world.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 3100 Special Topics in Architecture
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 3116 Architectural Design Studio IV
Prerequisites: Grade of "C" or better in ARCH 2216 and admission to Professional School.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3143 Structures: Analysis I
Prerequisites: Grade of "C" or better in ENSC 2143.
Description: Structural theory for applications in architecture. Previously offered as ARCH 3243.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3163 Architectural Science I: Thermal Systems and Life Safety for Architects
Prerequisites: Admission to Professional School, or permission of instructor.
Description: A survey of the scientific and design fundamentals of thermal comfort, building physics, building performance and energy concerns, and mechanical systems for buildings as well as the basic principles of life safety. May not be used for degree credit with ARCH 4134 or ARCH 4163. Previously offered as ARCH 3134.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3173 History and Theory of American Architecture
Prerequisites: ARCH 2003. Grade of "C" or better. Or ARCH 2283. Grade of "C" or better.
Description: History and theory of American architecture from the colonial period to the present day.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3216 Architectural Design Studio V
Prerequisites: Grade of "C" or better in ARCH 3116.
Description: Problems in architectural design.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3223 Structures: Timbers
Prerequisites: Grade of "C" or better in ARCH 3323.
Description: Analysis and design of timber structures used in architecture.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3224 Structures: Steel II
Prerequisites: Grade of "C" or better in ARCH 3323 and ARCH 3143.
Description: Design and analysis of multi-story steel frames, trusses, arches, and other architectural structure components. Previously offered as ARCH 4244 and ARCH 4144.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3252 Computer Applications in Architecture I
Prerequisites: Grade of C or better in ARCH 2116, and concurrent enrollment in ARCH 2216.
Description: Introduction to 2D and 3D computer topics and their application in the design process. No credit for students with credit in ARCH 3253.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3262 Design Communication II: Advanced Digital Applications
Prerequisites: Grade of "C" or better in ARCH 2252 or ENGR 1412.
Description: State-of-the-art applications of computers to the practice of architecture and architectural engineering. Previously offered as ARCH 4053.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3263 Materials In Architecture
Prerequisites: Grade of "C" or better in ARCH 2263 and admission to Professional School.
Description: Introduction to the basic materials used in the construction of architecture and how such materials affect both the design and implementation of the systems that incorporate these materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3273 History and Theory of Medieval Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2183, Grade of "C" or better. Or consent of instructor.
Description: History and theory of the architecture created between the 8th and 15th centuries in Europe, and its impact on the subsequent religious architecture of today.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3323 Structures: Steel I
Prerequisites: Grade of "C" or better in ENSC 2113 and admission to the Professional Program or permission of school head and advisor.
Description: Analysis and design of steel structures used in architecture.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3343 Structures: Steel II
Prerequisites: Grade of "C" or better in ARCH 3323 and ARCH 3043.
Description: Analysis, design, detailing and documentation of multi-story steel structures, and other structural components used in architecture applications. Previously offered as ARCH 3224.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3353 Advanced Graphics and Theory of Representation
Prerequisites: Grade of "C" or better in ARCH 2252 or consent of instructor.
Description: Manual and digital graphic techniques are explored in a project-based studio learning environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3373 Design and Diversity in Urban Centers of the US
Prerequisites: Permission of Instructor.
Description: Field study analysis of the diverse social and cultural issues evidenced through the design of architecture in major urban centers of the United States. Previously offered as ARCH 3370.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 3423 Biomimicry and Architecture
Description: Introduction to principles of biomimicry and how these can be utilized to achieve innovative solutions in architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 3433 Architectural Science II: Acoustics, Lighting, and Service Systems
Prerequisites: MATH 2144, Grade of "C" or better.
Description: A survey of scientific and design fundamentals of architectural acoustics, lighting, electrical, and signal, conveying, and plumbing systems for buildings. May not be used for degree credit with ARCH 4433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 3473 History and Theory of Structures in Architecture (H)
Prerequisites: "C" or better in ARCH 2003 or ARCH 2183 or ARCH 2283.
Description: A study of the language of structural systems as manifested in architecture through the ages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4073 History and Theory of Early Modern Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of modern architecture in the western world from the industrial revolution to the early twentieth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4093 Architectural Project Management
Prerequisites: Concurrent enrollment in ARCH 4216 or ARCH 5226 or consent of instructor.
Description: Principles of management as applied to architectural and architectural engineering projects. Previously offered as ARCH 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4100 Special Topics in Architecture
Prerequisites: Consent of instructor and head of the school.
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 4116 Design Studio VI
Prerequisites: Grade of "C" or better in ARCH 3216 and ARCH 3262.
Description: Problems in architectural design. Previously offered as ARCH 4517.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4123 Structures: Concrete I
Prerequisites: Grade of "C" or better in ARCH 3323.
Description: Analysis and design applications in architectural problems using concrete structures.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4131 Architectural Science Lab
Prerequisites: Enrollment by permission of instructor or academic advisor; senior standing.
Description: Laboratory experiments for building systems. Systems may include heating, cooling, electrical, lighting, acoustics and plumbing.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4143 Structures: Foundations for Buildings
Prerequisites: Grade of "C" or better in ARCH 4123.
Description: Subsurface soil conditions and design of foundation systems and retaining walls for buildings.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4163 Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers
Prerequisites: Admission to Professional School, or permission of instructor.
Description: A survey of the scientific and design fundamentals of thermal comfort, building physics, building performance and energy concerns, and mechanical systems for buildings, as well as the basic principles of life safety. May not be used for degree credit with ARCH 3134, ARCH 4134, or ARCH 3163. Previously offered as ARCH 4134.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4173 History and Theory of Skyscraper Design (H)
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of the development of the skyscraper in the USA from the late 19th century to the present.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4183 History and Theory of Architecture: Cities
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: The development of cities as an aspect of architecture from ancient times to the twentieth century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4203 Experimental Design Lab
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4216 Architectural Design Studio VII
Prerequisites: Grade of "C" or better in ARCH 3163 and ARCH 3433 and ARCH 4116 and ARCH 4123.
Description: Problems in Architectural Design. May not be used for degree credit with ARCH 5226.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 4224 Structures: Concrete II
Prerequisites: Grades of "C" or better in ARCH 3262, ARCH 4123, and concurrent enrollment in ARCH 4143.
Description: Design and analysis of multi-story reinforced concrete frames used in architecture applications. Previously offered as ARCH 4225.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4233 Sustainable Design in Architecture
Prerequisites: Grade of "C" or better in ARCH 3134 or ARCH 3163 or ARCH 4163.
Description: Sustainability topics and their application to architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4263 Architecture Seminar
Prerequisites: Co-requisite enrollment in ARCH 4216 or ARCH 5226, or permission of instructor.
Description: Topics in architecture and architectural engineering. May not be used for degree credit with ARCH 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4273 History and Theory of Islamic Architecture
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2183, Grade of "C" or better.
Description: Architecture of the Islamic World.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4283 Architecture of Asia
Prerequisites: ARCH 2003 Architecture and Society.
Description: History and theory of the architecture of Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4293 The Ethics of the Built Environment (H)
Prerequisites: Admission to the professional program or consent of instructor.
Description: Analysis of basic values that determine the form of the built environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures

ARCH 4343 Structures: Concrete II
Prerequisites: Grade of "C" or better in ARCH 3262 and ARCH 4123.
Description: Analysis, design, detailing and documentation of multi-story reinforced concrete structures, and other structural components used in architecture applications. Previously offered as ARCH 4224.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4353 Computational Foundations
Description: The use of advanced 3D digital design tools for architectural applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4373 Field Study in Europe I
Prerequisites: Senior standing in architecture or consent of instructor.
Description: On-site analysis and study of European architecture, culture, and urban design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4374 International Field Study (GH)
Prerequisites: Admission to Professional Program in Architecture or Architectural Engineering or approval of instructor and head of school.
Description: On-site analysis and study of international architecture, culture and urban design.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture
General Education and other Course Attributes: Human Heritage & Cultures, International Dimension

ARCH 4383 History and Theory of Modern Architecture in Italy
Prerequisites: ARCH 2003, Grade of "C" or better. Or ARCH 2283, Grade of "C" or better.
Description: History and theory of the progressive experimental architecture created in Italy in the Modern era amidst the cultural, economic, and political realities of 1909-1943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 4433 Architectural Science II: Acoustics, Lighting, and Service Systems for Architectural Engineers
Prerequisites: MATH 2144, Grade of "C" or better.
Description: Engineering fundamentals of architectural acoustics, lighting, electrical, and signal, conveying, and plumbing systems for buildings. May not be used for degree credit with ARCH 3433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4444 Structures: Analysis II
Prerequisites: Grade of "C" or better in ARCH 3143 and ENGR 1412.
Description: Mathematical formulation of architectural structural behavior. Matrix applications, finite element, finite differences, stability considerations, and three dimensional structural modeling.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 4991 Professional Development for Architects and Architectural Engineers
Prerequisites: Admission to Professional School, or permission of instructor.
Description: Professional values, culture, mentorship, and leadership development companion course to a professional experience.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5003 Integrative Design
Prerequisites: Admission to the Graduate College and the Architecture Graduate Certificate Program.
Description: Advanced Topics in Integrative Design.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 5016 Architectural Design Studio VIII
Prerequisites: Grade of "C" or better in ARCH 4216 or permission of school head or advisor.
Description: Problems in architectural design. May not be used with degree credit in ARCH 5117.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5023 Timber and Masonry Design and Analysis
Prerequisites: Grade of "C" or better or concurrent enrollment in ARCH 4123, or by permission of instructor.
Description: Analysis and design of timber and masonry structures, including code requirements, analysis techniques, design of components, and detailing of architectural engineering contract documents conforming to the relevant codes.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 5093 Real Estate Development
Prerequisites: Admission to professional program, or consent of instructor.
Description: Introduction to real estate development as a function of project conception, analysis, design and delivery. Same course as EEE 5200.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5100 Special Topics in Architecture
Prerequisites: Consent of instructor and head of the school.
Description: Subjects to be selected by the faculty in architecture from advances in state-of-the-art areas. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 5117 Architectural Design Studio VIII
Prerequisites: Grade of "C" or better in 4216 or permission of school head or advisor.
Description: Problems in architectural design. No credit for students with credit in ARCH 5116.
Credit hours: 7
Contact hours: Lab: 16 Contact: 16
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5133 Advanced Energy Issues in Architecture
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5143 Structures: Special Loadings
Prerequisites: Grade of "C" or better in ARCH 4444.
Description: Mathematical formulations and modeling in architectural structures. Human response to vibrations. Seismic design in building. Design for extreme winds on buildings. Approximate methods for preliminary design of architectural structures. Previously offered as ARCH 5243.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 5193 Management of Architectural Practice
Prerequisites: Fifth-year standing in architecture or architectural engineering or consent of instructor.
Description: Principles of management as applied to the private practice of architecture and architectural engineering.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5217 Architectural Design Studio IX
Prerequisites: Grade of "C" or better in 5117 or consent of instructor.
Description: Problems in architectural design. Previously offered as ARCH 5216.
Credit hours: 7
Contact hours: Lab: 16 Contact: 16
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5226 Architectural Engineering Comprehensive Design Studio
Prerequisites: Grade of "C" or better in ARCH 4143, ARCH 4163, ARCH 4433, and ARCH 5023.
Description: Problems in architectural and architectural engineering design. May not be used for degree credit with ARCH 4216.
Credit hours: 6
Contact hours: Lab: 12 Contact: 12
Levels: Graduate, Undergraduate
Schedule types: Lab
Department/School: Architecture

ARCH 5263 Advanced Architecture Technology Seminar
Prerequisites: Concurrent enrollment in ARCH 4216 or ARCH 5226, or permission of instructor.
Description: Advanced topics in technology related to the disciplines of architecture and architectural engineering. May not be used for degree credit with ARCH 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5373 Field Study in Europe II
Prerequisites: Senior standing in architecture or consent of instructor
Description: On-site analysis and study of European architecture, culture and urban design.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 5493 Entrepreneurship and Architecture
Prerequisites: Senior standing.
Description: Introduction to entrepreneurship within the context of architecture, with direct application to architectural services, activities, and products. Emphasis on implementing the entrepreneurial process in starting and sustaining new ventures that significantly shape the built environment. Same course as EEE 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6000 Special Problems
Prerequisites: Consent of instructor and head of school.
Description: Theory, research or design investigation in specific areas of study in the field of architecture and its related disciplines. Plan of study determined jointly by student and graduate faculty. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 6083 History and Theory of Contemporary Architecture
Prerequisites: Graduate standing or consent of instructor
Description: American architecture beginning in the 16th century through the 20th century.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6113 Creative Component Research
Prerequisites: Admission to graduate program.
Description: Data gathering, analysis and program formulation related to creative component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6117 Graduate Design Studio
Prerequisites: Admission to graduate program.
Description: Problems in architectural design.
Credit hours: 7
Contact hours: Lab: 14 Contact: 14
Levels: Graduate
Schedule types: Lab
Department/School: Architecture

ARCH 6203 Creative Component in Architectural Engineering
Description: A design project based on a program previously developed by the student, to include a written report and supporting documents when appropriate. Must be approved by the project advisor and completed in the final semester of the graduate program.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Graduate
Schedule types: Lab
Department/School: Architecture

ARCH 6207 Creative Component in Architecture
Prerequisites: ARCH 6117.
Description: A design project based on a program previously developed by the student to include a written report and supportive documents when appropriate. Must be approved by the project adviser and completed in the final semester of the graduate program.
Credit hours: 7
Contact hours: Contact: 7 Other: 7
Levels: Graduate
Schedule types: Independent Study
Department/School: Architecture

ARCH 6243 Structures: Analysis III
Prerequisites: Grade of "C" or better in ARCH 4444 and admission to the graduate program.
Description: Analysis techniques for architectural structures including stability, space frames, computer applications, guyed towers and project research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Architecture

ARCH 6343 Structures: Steel III
Prerequisites: Grade of "C" or better in ARCH 3343, or by permission of instructor.
Description: Advanced topics in structural steel design, and steel connection design and detailing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

ARCH 6543 Structures: Concrete III
Prerequisites: Grade of C or better in ARCH 4224.
Description: Design of prestressed concrete structures, including pre- and post-tensioning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Architecture

Undergraduate Programs

- Architectural Design Studies: Design Management and Leadership, BS (p. 2459)
- Architectural Design Studies: Design Thinking and Communication, BS (p. 2461)
- Architectural Design Studies: Design, Culture and Urban Studies, BS (p. 2463)

- Architectural Engineering: Construction Project Management, BEN (p. 2465)
- Architectural Engineering: Structures, BEN (p. 2467)
- Architecture, BAR (p. 2472)

Minors

- Architectural Studies: Architecture and Entrepreneurship (ASAE), Minor (p. 2469)
- Architectural Studies: Design (ASDS), Minor (p. 2470)
- Architectural Studies: History and Theory (ASHT), Minor (p. 2471)

Faculty

Nathan Richardson, MArch, AIA—School of Architecture Head and Professor
Associate Dean for Academic Affairs and Professor: Carisa Ramming, MArchE and MSCivE, PE
Professors: Khaled Mansy, PhD; John Phillips, MArchE, PE; Seung Ra, MArch, RA
Associate Professors: Jared Macken, Dr. Sc.; Christina McCoy, MArchE, SE, RA; Keith Peiffer, MArch, AIA; Sarah Ra, MArch, AIA, NCIDQ; Michael Rabens, PhD; Jerry L. Stivers, MArch, RA; Jay Yowell, MArch, AIA
Assistant Professors: Bailey Brown, MArch; Alex Campbell, MSCivE, PE; Michael Frush, MArch, AIA; Bodhi Hajra, PhD; Blake Mitchell, MArch; James Piccone, MArch, RA

Architectural Design Studies: Design Management and Leadership, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q)	3
or MATH 2144	Calculus I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2283	History and Theory of Architecture II (H)	3
or ARCH 2003	Architecture and Society (GH)	
ARCH 4374	International Field Study (GH)	4
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		4
PHYS 1114	College Physics I (LN)	
or PHYS 2014	University Physics I (LN)	
Select 3 hours designated (N)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I	6
ARCH 2116	Architectural Design Studio II	6
ARCH 2183	History and Theory of Architecture I	3
ARCH 2216	Architectural Design Studio III	6
ARCH 2252	Design Communication I: Visual and Graphic Acuity	2
ARCH 2263	Building Systems	3
Hours Subtotal		**28**
Major Requirements		
Architecture		
ARCH 3033	Design Methods	3
ARCH 4203	Experimental Design Lab	3
ARCH 4991	Professional Development for Architects and Architectural Engineers	1
Architecture Electives		
Select 9 hours from:		9
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 3100	Special Topics in Architecture	
ARCH 3173	History and Theory of American Architecture	
ARCH 3273	History and Theory of Medieval Architecture	
ARCH 3353	Advanced Graphics and Theory of Representation	
ARCH 3373	Design and Diversity in Urban Centers of the US	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4100	Special Topics in Architecture	
ARCH 4173	History and Theory of Skyscraper Design (H)	
ARCH 4233	Sustainable Design in Architecture	
ARCH 4273	History and Theory of Islamic Architecture	
ARCH 5093	Real Estate Development	
ARCH 5493	Entrepreneurship and Architecture	
Option Core Courses		
ARCH 5093	Real Estate Development	3
ARCH 5493	Entrepreneurship and Architecture	3
ARCH 5193	Management of Architectural Practice	3
ACCT 2003	Survey of Accounting	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
MKTG 3213	Marketing (S)	3
or MGMT 3013	Fundamentals of Management (S)	
BCOM 3113	Written Communication	3
or ENGL 3323	Technical Writing	
Hours Subtotal		**40**
Electives		
Select 15 UPPER DIVISION hours from these subject areas - ARCH, ENGL, EEE, MGMT, MKTG, PHIL, SPCH		15

Hours Subtotal	**15**
Total Hours	**124**

Other Requirements

- A minimum 2.00 Technical GPA. The Technical GPA is calculated from all required courses in the curriculum with a prefix belonging to the degree program, or substitution for these courses.
- A final grade of "C" or better in all ARCH prefix courses and ARCH course substitutes which are prerequisites to other ARCH courses. A final grade of "C" or better in all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course and ARCH substitutes.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Architectural Design Studies: Design Thinking and Communication, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q)	3
or MATH 2144	Calculus I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2283	History and Theory of Architecture II (H)	3
or ARCH 2003	Architecture and Society (GH)	
ARCH 4374	International Field Study (GH)	4
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		4
PHYS 1114	College Physics I (LN)	
or PHYS 2014	University Physics I (LN)	
Select 3 hours designated (N)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I	6
ARCH 2116	Architectural Design Studio II	6
ARCH 2183	History and Theory of Architecture I	3
ARCH 2216	Architectural Design Studio III	6
ARCH 2252	Design Communication I: Visual and Graphic Acuity	2
ARCH 2263	Building Systems	3
Hours Subtotal		**28**
Major Requirements		
Architecture		
ARCH 3033	Design Methods	3
ARCH 4203	Experimental Design Lab	3
ARCH 4991	Professional Development for Architects and Architectural Engineers	1
Architecture Electives		
Select 9 hours from:		9
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 3100	Special Topics in Architecture	
ARCH 3173	History and Theory of American Architecture	
ARCH 3273	History and Theory of Medieval Architecture	
ARCH 3353	Advanced Graphics and Theory of Representation	
ARCH 3373	Design and Diversity in Urban Centers of the US	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4100	Special Topics in Architecture	
ARCH 4173	History and Theory of Skyscraper Design (H)	
ARCH 4233	Sustainable Design in Architecture	
ARCH 4273	History and Theory of Islamic Architecture	
ARCH 5093	Real Estate Development	
ARCH 5493	Entrepreneurship and Architecture	
Option Core Courses		
ARCH 3353	Advanced Graphics and Theory of Representation	3
ART 2283	Studio Art Digital Survey	3
ART 3643	History of Graphic Design	3
MC 2003	Mass Media Style and Structure	3
SPCH 3733	Elements of Persuasion (S)	3
EEE 2023	Introduction to Entrepreneurship	3
CS 1113	Computer Science I (Q)	3
or CS 1013	Computer Science Principles	
BCOM 3113	Written Communication	3
or ENGL 3323	Technical Writing	
Hours Subtotal		**40**
Electives		

Select 15 upper division hours from these subject areas - ARCH, ART, CS, DHM, EEE, LA, MC, SPCH, SC	15
Hours Subtotal	**15**
Total Hours	**124**

Other Requirements

- A minimum 2.00 Technical GPA. The Technical GPA is calculated from all required courses in the curriculum with a prefix belonging to the degree program, or substitution for these courses.
- A final grade of "C" or better in all ARCH prefix courses and ARCH course substitutes which are prerequisites to other ARCH courses. A final grade of "C" or better in all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course and ARCH substitutes.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Architectural Design Studies: Design, Culture and Urban Studies, BS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q)	3
or MATH 2144	Calculus I (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2283	History and Theory of Architecture II (H)	3
or ARCH 2003	Architecture and Society (GH)	
ARCH 4374	International Field Study (GH)	4
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		4
PHYS 1114	College Physics I (LN)	
or PHYS 2014	University Physics I (LN)	
Select 3 hours designated (N)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**41**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I	6
ARCH 2116	Architectural Design Studio II	6
ARCH 2183	History and Theory of Architecture I	3
ARCH 2216	Architectural Design Studio III	6
ARCH 2252	Design Communication I: Visual and Graphic Acuity	2
ARCH 2263	Building Systems	3
Hours Subtotal		**28**
Major Requirements		
Architecture		
ARCH 4203	Experimental Design Lab	3
ARCH 3033	Design Methods	3
ARCH 4991	Professional Development for Architects and Architectural Engineers	1
Architecture Electives		
Select 9 hours from:		9
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 3100	Special Topics in Architecture	
ARCH 3173	History and Theory of American Architecture	
ARCH 3273	History and Theory of Medieval Architecture	
ARCH 3353	Advanced Graphics and Theory of Representation	
ARCH 3373	Design and Diversity in Urban Centers of the US	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4100	Special Topics in Architecture	
ARCH 4173	History and Theory of Skyscraper Design (H)	
ARCH 4233	Sustainable Design in Architecture	
ARCH 4273	History and Theory of Islamic Architecture	
ARCH 5093	Real Estate Development	
ARCH 5493	Entrepreneurship and Architecture	
Option Core Courses		
ARCH 4183	History and Theory of Architecture: Cities	3
ARCH 3373	Design and Diversity in Urban Centers of the US	3
ANTH 3353	Cultural Anthropology (GS)	3
POLS 2313	Social Justice Politics (D)	3
SOC 3423	Urban Sociology	3
EEE 2023	Introduction to Entrepreneurship	3
GEOG 3123	Urban Geography (S)	3
or GEOG 3173	Cultural Geography (S)	
BCOM 3113	Written Communication	3
or ENGL 3323	Technical Writing	
Hours Subtotal		**40**
Electives		

Select 15 UPPER DIVISION hours from these subject areas - ARCH, ANTH, EEE, GEOG, HIST, MC, POLS	15
Hours Subtotal	**15**
Total Hours	**124**

Other Requirements

- A minimum 2.00 Technical GPA. The Technical GPA is calculated from all required courses in the curriculum with a prefix belonging to the degree program, or substitution for these courses.
- A final grade of "C" or better in all ARCH prefix courses and ARCH course substitutes which are prerequisites to other ARCH courses. A final grade of "C" or better in all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course and ARCH substitutes.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Architectural Engineering: Construction Project Management, BEN

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 140

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2003	Architecture and Society (GH)	3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN)	4
Three additional hours of (N)		3
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I [1]	6
ARCH 2116	Architectural Design Studio II [1]	6
ARCH 2252	Design Communication I: Visual and Graphic Acuity [1]	2
ARCH 2263	Building Systems [1]	3
Engineering Science		
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2141	Strength of Materials Lab [1]	1
Hours Subtotal		**28**
Major Requirements/Professional School		
Admitted to Professional School of Architecture (see requirements for admission to the upper-division)		
Architecture		
ARCH 3043	Structural Loadings in Architecture	3
ARCH 3262	Design Communication II: Advanced Digital Applications	2
ARCH 3323	Structures: Steel I	3
ARCH 4093	Architectural Project Management	3
ARCH 4123	Structures: Concrete I	3
ARCH 4143	Structures: Foundations for Buildings	3
ARCH 4163	Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers	3
ARCH 4263	Architecture Seminar	3
ARCH 4433	Architectural Science II: Acoustics, Lighting, and Service Systems for Architectural Engineers	3
ARCH 5023	Timber and Masonry Design and Analysis	3
ARCH 5226	Architectural Engineering Comprehensive Design Studio	6
Civil Engineering		
CIVE 3623	Engineering Materials Laboratory	3
CIVE 4183	Construction Estimating	3
or CIVE 4103	Construction Simulation	
or CIVE 4113	Construction Business Management	
or CIVE 4133	Construction Contracts and Specifications	
CIVE 4273	Construction Engineering and Project Management	3
CIVE 4711	Basic Soils Testing Laboratory	1
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
Engineering Science, Engineering		
ENSC 2123	Elementary Dynamics	3
ENSC 3313	Materials Science	3
Mathematics		

MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Statistics		
STAT 4033	Engineering Statistics	3
Hours Subtotal		**63**
Controlled Electives		
Select 6 credit hours from:		6
ARCH 2890	Honors for Topics in Architecture	
ARCH 3100	Special Topics in Architecture	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4100	Special Topics in Architecture	
ARCH 4233	Sustainable Design in Architecture	
ARCH 4293	The Ethics of the Built Environment (H)	
ARCH 5093	Real Estate Development	
ARCH 5193	Management of Architectural Practice	
ARCH 5493	Entrepreneurship and Architecture	
CIVE 5123	The Legal and Regulatory Environment of Engineering	
CIVE 5133	Construction Contracts and Specifications	
CIVE 5143	Project Engineering and Management	
CIVE 5153	Contract Administration	
CET 2263	Estimating I	
CET 3273	Scheduling Construction Projects	
CET 4263	Estimating II	
CET 4283	Business Practices for Construction	
Upper division ARCH, CIVE, CET ENGR, FPST, MAE		
Hours Subtotal		**6**
Total Hours		**140**

[1]

Courses that must be completed prior to admission to professional school with a "C" or better.

Admission to Professional School (required)

- Refer to the OSU Catalog corresponding to your matriculation date for detailed admissions requirements.

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A final grade of "C" or better in all ARCH prefix courses, substitutions for ARCH prefix courses, and all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course. The final grade of "C" is however not needed in the terminal courses in a series.
3. The capstone course for Architectural Engineering majors is ARCH 5226 Architectural Engineering Comprehensive Design Studio.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Architectural Engineering: Structures, BEN

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 140

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2003	Architecture and Society (GH)	3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN) [1]	4
PHYS 2114	University Physics II (LN)	4
3 hours of (N)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I [1]	6
ARCH 2116	Architectural Design Studio II	6
ARCH 2252	Design Communication I: Visual and Graphic Acuity [1]	2
ARCH 2263	Building Systems [1]	3
Engineering Science		
ENGR 1412	Introductory Engineering Computer Programming [1]	2
ENSC 2113	Statics [1]	3
ENSC 2143	Strength of Materials [1]	3
ENSC 2141	Strength of Materials Lab [1]	1
Hours Subtotal		**28**
Major Requirements		
Architecture		
ARCH 3043	Structural Loadings in Architecture	3
ARCH 3143	Structures: Analysis I	3
ARCH 3262	Design Communication II: Advanced Digital Applications	2
ARCH 3323	Structures: Steel I	3
ARCH 3343	Structures: Steel II	3
ARCH 4093	Architectural Project Management	3
ARCH 4123	Structures: Concrete I	3
ARCH 4143	Structures: Foundations for Buildings	3
ARCH 4163	Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers	3
ARCH 4263	Architecture Seminar	3
ARCH 4343	Structures: Concrete II	3
ARCH 4433	Architectural Science II: Acoustics, Lighting, and Service Systems for Architectural Engineers	3
ARCH 5023	Timber and Masonry Design and Analysis	3
ARCH 5226	Architectural Engineering Comprehensive Design Studio	6
Civil Engineering		
CIVE 4711	Basic Soils Testing Laboratory	1
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
Engineering Science, Engineering		
ENSC 2123	Elementary Dynamics	3
ENSC 3313	Materials Science	3
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Statistics		
STAT 4033	Engineering Statistics	3
Hours Subtotal		**63**
Electives		
Select 6 credit hours from:		6
ARCH 2890	Honors for Topics in Architecture	

ARCH 3100	Special Topics in Architecture
ARCH 3473	History and Theory of Structures in Architecture (H)
ARCH 4100	Special Topics in Architecture
ARCH 4233	Sustainable Design in Architecture
ARCH 5143	Structures: Special Loadings
ARCH 6243	Structures: Analysis III
ARCH 6343	Structures: Steel III
ARCH 6543	Structures: Concrete III
CIVE 3623	Engineering Materials Laboratory
CIVE 3614	Engineering Surveying
CIVE 5403	Advanced Strength of Materials
CIVE 5433	Energy Methods in Applied Mechanics
CIVE 5533	Prestressed Concrete
CIVE 5573	Timber Design
Upper division ARCH, FPST, MAE, ENGR, CIVE, CET	
Hours Subtotal	**6**
Total Hours	**140**

[1]

Courses that must be completed prior to admission to professional school with a "C" or better.

Admission to Professional School (required)

- Refer to the OSU Catalog corresponding to your matriculation date for detailed admissions requirements.

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A final grade of "C" or better in all ARCH prefix courses, substitutions for ARCH prefix courses, and all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course. The final grade of "C" is however not needed in the terminal courses in a series.
3. The capstone course for Architectural Engineering majors is ARCH 5226 Architectural Engineering Comprehensive Design Studio.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Architectural Studies: Architecture and Entrepreneurship (ASAE), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 21

Code	Title	Hours
Minor Requirements		
ARCH 5093	Real Estate Development	3
ARCH 5193	Management of Architectural Practice	3
ARCH 5493	Entrepreneurship and Architecture	3
Select six hours of the following:		6
ECON 3033	Economics of Entrepreneurship and Innovation	
LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
Six hours of Entrepreneurship (EEE) courses		6
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Architectural Studies: Design (ASDS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

John Philips, john.j.phillips@okstate.edu, 101 DWR Arch. Bldg, 405-744-6043

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 23

Code	Title	Hours
Required Courses		
ARCH 1112	Introduction to Architecture	2
Select 12 hours of lower-division ARCH		12
Select nine hours of upper-division ARCH as approved by the advisor		9
Total Hours		**23**

Additional Requirements

- Students in the Bachelor of Architecture majors are not eligible to receive this minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Architectural Studies: History and Theory (ASHT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

John Phillips, john.j.phillips@okstate.edu, 101 DWR Arch. Bldg, 405-744-6043

Minimum Overall Grade Point Average: 2.50 with no grade below "C."
Total Hours: 21

Code	Title	Hours
Minor Requirements		
ARCH 2003	Architecture and Society (HI)	3
or ARCH 2283	History and Theory of Architecture II (H)	
Select any six additional Architectural history/theory courses [1]		18
Total Hours		**21**

1

May include ARCH 4373 Field Study in Europe I/ARCH 5373 Field Study in Europe II (European Program), ARCH 4374 International Field Study (HI) and/or ARCH 3373 Design and Diversity in Urban Centers of the US (Urban USA Program).

* Up to 6 hours of ART History and Theory coursework may be included, but must be approved by Head of the School of Architecture or Architecture Academic Advisor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Architecture, BAR

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 154

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
ARCH 2003	Architecture and Society (GH) [1]	3
or ARCH 2283	History and Theory of Architecture II (H)	
Select 3 hours ARCH history designated (H):		3
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4173	History and Theory of Skyscraper Design (H)	
ARCH 4293	The Ethics of the Built Environment (H)	
ART 3603	History of Classical Art (H)	
ART 3623	History of Italian Renaissance Art (H)	
ART 3633	History of Baroque Art (H)	
ART 3663	History of American Art (DH)	
ART 3683	History of 20th Century Art (GH)	
Any other ARCH (H)		
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		4
PHYS 1114	College Physics I (LN) [1]	
or PHYS 2014	University Physics I (LN)	
Courses designated (N)		3
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Three Additional Hours of Upper-Division Courses Designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**41**
College/Departmental Requirements		
Architecture		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ARCH 1211	Introduction to Architectural Studies	1
ARCH 1216	Architectural Design Studio I [1]	6
ARCH 2116	Architectural Design Studio II [1]	6
ARCH 2216	Architectural Design Studio III [1]	6
ARCH 2263	Building Systems [1]	3
ARCH 2252	Design Communication I: Visual and Graphic Acuity [1]	2
ARCH 2183	History and Theory of Architecture I	3
ENSC 2113	Statics [1]	3
Hours Subtotal		**31**
Major Requirements		
Architecture		
ARCH 3116	Architectural Design Studio IV	6
ARCH 3216	Architectural Design Studio V	6
ARCH 3163	Architectural Science I: Thermal Systems and Life Safety for Architects	3
ARCH 3262	Design Communication II: Advanced Digital Applications	2
ARCH 3323	Structures: Steel I	3
ARCH 3433	Architectural Science II: Acoustics, Lighting, and Service Systems	3
ARCH 4203	Experimental Design Lab	3
ARCH 4093	Architectural Project Management	3
ARCH 4116	Design Studio VI	6
ARCH 4123	Structures: Concrete I	3
ARCH 4216	Architectural Design Studio VII	6
ARCH 4263	Architecture Seminar	3
ARCH 4374	International Field Study (GH)	4
ARCH 4991	Professional Development for Architects and Architectural Engineers	1
ARCH 5016	Architectural Design Studio VIII	6
ARCH 5193	Management of Architectural Practice	3
Architecture Electives		
Select 12 hours from:		12
ARCH 3100	Special Topics in Architecture	
ARCH 3083	History and Theory of Renaissance and Baroque Architecture (H)	
ARCH 3143	Structures: Analysis I	
ARCH 3173	History and Theory of American Architecture	

ARCH 3273	History and Theory of Medieval Architecture	
ARCH 3353	Advanced Graphics and Theory of Representation	
ARCH 3373	Design and Diversity in Urban Centers of the US	
ARCH 3473	History and Theory of Structures in Architecture (H)	
ARCH 4100	Special Topics in Architecture	
ARCH 4073	History and Theory of Early Modern Architecture	
ARCH 4143	Structures: Foundations for Buildings	
ARCH 4173	History and Theory of Skyscraper Design (H)	
ARCH 4183	History and Theory of Architecture: Cities	
ARCH 4233	Sustainable Design in Architecture	
ARCH 4273	History and Theory of Islamic Architecture	
ARCH 4293	The Ethics of the Built Environment (H)	
ARCH 4353	Computational Foundations	
ARCH 4383	History and Theory of Modern Architecture in Italy	
ARCH 5023	Timber and Masonry Design and Analysis	
ARCH 5093	Real Estate Development	
ARCH 5493	Entrepreneurship and Architecture	
Hours Subtotal		**73**
Electives		**9**
Additional ARCH Courses		
SPCH 2713	Introduction to Speech Communication (S)	
MUSI 2610	University Bands I	
MUSI 2620	Symphony Orchestra I	
MUSI 2630	University Choral Ensembles I	
MATH 2153	Calculus II (Q)	
MATH 2163	Calculus III	
ENSC 2143	Strength of Materials	
PHYS 1214	College Physics II (LN)	
PHYS 2114	University Physics II (LN)	
ART 2000 level, approved by ARCH Advisor		
Lower division CHIN, LATN, FREN, GRMN, SPAN, JAPN		
Upper division AMST, ANTH, ART, CET, CMT, DHM, ECON, EEE, ENGR, ENGL, GEOG, GWST, HIST, HTM, LA, LSB, MC, MKTG, MGMT, PHIL, POLS, REL, SC, SOC and any other upper division course that is approved by the departmental advisor.		
Hours Subtotal		**9**
Total Hours		**154**

[1]

Courses that must be completed prior to admission to professional school with a grade of C or better.

Admission to Professional School (required)

- Refer to the OSU Catalog corresponding to your matriculation date for detailed admissions requirements.

Graduation Requirements

- A minimum 2.00 Technical GPA. The Technical GPA is calculated from all required courses in the curriculum with a prefix belonging to the degree program, or substitution for these courses.
- A final grade of 'C' or better in all ARCH prefix courses and ARCH course substitutes which are prerequisites to other ARCH courses. A final grade of 'C' or better in all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course and ARCH substitutes.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

FERGUSON COLLEGE OF AGRICULTURE

College Administration

Jayson L. Lusk, PhD—Vice President and Dean
Cynda R. Clary, PhD—Associate Dean, Academic Programs
Danielle Bellmer, PhD—Assistant Dean, Academic Programs

Campus Address and Phone

Address: 146 Agricultural Hall, Stillwater, OK 74078
Phone: 405.744.5395
Fax: 405.744.5339
Website: http://agriculture.okstate.edu (http://agriculture.okstate.edu/)
E-mail: fergusoninfo@okstate.edu

The Ferguson College of Agriculture is the academic unit of the Division of Agricultural Sciences and Natural Resources and offers outstanding undergraduate and graduate programs that are recognized at the state, regional, national and international levels. In collaboration with the OSU Extension and OSU Ag Research, the Ferguson College of Agriculture faculty provides great breadth and exceptional quality in teaching, mentoring, research, extension, and service.

The Ferguson College of Agriculture values hands-on instruction and a well-rounded student experience. The college's award-winning faculty members are dedicated to developing students and passionate about adding value to the total educational experience. The college's academic programs not only teach the technical skills needed in their chosen field, but also prepare students to analyze information, communicate effectively, think critically, solve problems, and assume leadership roles in their respective fields of study. Students also receive a solid general education in communications, humanities, and social sciences.

Students in our college have a broad set of non-agricultural and traditional agricultural backgrounds and experiences. They come from urban cities and rural communities. Our students may be first-generation, legacy, in-state, out-of-state or international students. This collection of perspective and background adds strength to the college experience for all students.

Career opportunities in agricultural sciences and natural resources are also broad-based. The college's majors include traditional agricultural and natural resource disciplines such as animal and food sciences, agricultural business, soil science, range science, horticulture, entomology, and agricultural education, in addition to distinctive areas such as plant and animal biotechnology, food safety, natural resource management, agricultural communications, and agricultural systems technology. Programs in the Ferguson College of Agriculture also include many fields not commonly associated with agriculture such as landscape architecture, turf management, biochemistry and molecular biology, environmental science, leadership, pre-law, and pre-medical sciences. Active international programs, including study abroad opportunities, are available to students in every Ferguson College of Agriculture major and add a unique dimension to the college experience.

Accreditation

Agricultural sciences and natural resources include broad and diverse professions and do not have a single accrediting society as do some other professions. Programs in agricultural education, biochemistry and molecular biology, biosystems engineering, forest ecology and management, and landscape architecture are accredited by their professional organizations.

Academic Programs

Undergraduate Programs

The Bachelor of Science in Agricultural Sciences and Natural Resources degree is offered in the following major fields of study: agribusiness, agricultural communications, agricultural economics, agricultural education, agricultural leadership, agricultural systems technology, animal science, biochemistry and molecular biology, entomology, environmental sciences, food science, horticulture, natural resource ecology and management, and plant and soil sciences. The Bachelor of Landscape Architecture is also offered in the Ferguson College of Agriculture. The biosystems engineering degree program is jointly administered by the Ferguson College of Agriculture and the College of Engineering, Architecture and Technology (Bachelor of Science in Biosystems Engineering). Every major must meet the College/Departmental requirements for the Ferguson College of Agriculture. In addition to undergraduate majors, most of the college's departments offer one or more minors. The requirements for the minors are available from the department offering the specified minor. The college also offers undergraduate certificate programs in equine enterprise management, food safety, and ethical leadership.

Graduate Programs

Graduate study is available in all Ferguson College of Agriculture academic departments and in the multidisciplinary international agriculture and food science programs. In addition to the Master of Agriculture and Master of Science degrees that may be obtained through several departments, the Doctor of Philosophy degree (PhD) may be earned in the following areas: agricultural economics, agricultural education, biosystems engineering, animal science, biochemistry and molecular biology, crop science, entomology, food science, plant pathology, soil science, natural resource ecology and management and in horticulture through multidisciplinary programs in crop science, and plant science.

High School Preparation and Admission Requirements

The high school preparation and admission requirements for the College are the same as the general University requirements. Additional online information can be found at https://go.okstate.edu/admissions/.

Transfer Students

Students who transfer from an accredited college or two-year college must meet the general University admission requirements. All transferred courses are recorded on the OSU transcript; however, a minimum of 60 credit hours must be earned at a senior college (baccalaureate degree-granting institution) to meet the Oklahoma State Regents for Higher Education requirements. Credits will be accepted by transfer from a community college to meet lower-division (i.e., 1000- and 2000-level courses) requirements only. Specific departmental requirements needed for graduation are determined by the department in which the student plans to earn his or her degree.

Scholarships

Students enrolled in and entering the Ferguson College of Agriculture are annually awarded over 1.8 million dollars in scholarships by the College

and its departments. When awarding scholarships, the Ferguson College of Agriculture looks at several areas of a student's background, including (but not limited to) scholastic standing in high school or college, organization and community involvement, financial need, and sincere interest in the various agriculture and natural resource disciplines.

Additional information may be obtained from the office of the associate dean, Ferguson College of Agriculture, Oklahoma State University, 146 Agricultural Hall, Stillwater, OK 74078 (https://agriculture.okstate.edu/students/undergraduate-students/scholarships.html).

Student Success Center

The Ferguson College of Agriculture's Hilst Center for Student Success (SSC (https://agriculture.okstate.edu/students/student-success-center/)) provides students with resources and opportunities for educational, personal, and professional growth. The SSC provides important services and programs including Prospective Student Services, Study and Snacks, Freshman in Transition (https://agriculture.okstate.edu/students/undergraduate-students/freshmen-in-transition.html), Global Programs, and Career Services. With the help of Student Success Leaders, the SSC implements a "students helping students" philosophy to provide our students with academic support and student development opportunities.

Special Academic Programs

Honors Program

The Honors Program through the Ferguson College of Agriculture provides students with opportunities to pursue new challenges and academic excellence. Honors courses, seminars and special honors contracts provide for discussions and independent study by students who have the desire and ability to explore academic subjects beyond the normal classwork material. The OSU Honors College oversees the following Honors Award Recognitions:

1. General Honors.
2. College or Department Honors.
3. The Honor's College Degree.

Award descriptions and Honors College eligibility requirements can be found in the Honors College section of the catalog. Online information is available at http://honors.okstate.edu (http://honors.okstate.edu/).

Pre-Professional Programs

Pre-law, pre-medical, and pre-veterinary are not majors, but rather statements of intention that indicate a career goal you are working toward while obtaining your bachelor's degree. The Ferguson College of Agriculture offers several pathways to help achieve your goal of pursuing an advanced degree.

Pre-Law

The Ferguson College of Agriculture Animal Science and Agribusiness majors have specific degree options for students interested in pre-law that promote the development of problem-solving abilities and exceptional writing skills.

Pre-Medical

The Ferguson College of Agriculture offers degree tracks within several majors that can lead you to a career in the medical#field. Majors with a pre-medical option include animal science, biochemistry and molecular biology, biosystems engineering, and entomology.

Pre-Veterinary Medicine Curriculum

Specific pre-veterinary science options in agribusiness, animal science, biochemistry and molecular biology, entomology, and natural resource ecology and management as offered in the Ferguson College of Agriculture, include courses required for admission to the College of Veterinary Medicine.

Graduation Requirements

General University requirements for graduation are stated elsewhere in the Catalog. In addition, specific requirements must be met for the Bachelor of Science in Agricultural Sciences and Natural Resources and Bachelor of Landscape Architecture degrees. Required total semester credit hours for each degree vary by department, major, and option. A minimum of 40 semester credit hours and 100 grade-points must be earned in courses numbered 3000 or above.

College and Departmental Organizations, Competitive Teams and Honor Societies

There are more than 60 student organizations and competitive teams within the Ferguson College of Agriculture providing students with leadership, social, and career opportunities. Online information about student involvement is available at (https://agriculture.okstate.edu/students/student-involvement/index.html (https://agriculture.okstate.edu/students/student-involvement/)).

Academic Areas

- Agricultural Communications (p. 2478)
- Agricultural Economics (p. 2485)
- Agricultural Education (p. 2522)
- Agricultural Leadership (p. 2529)
- Animal and Food Sciences (p. 2539)
- Biochemistry and Molecular Biology (p. 2565)
- Biosystems and Agricultural Engineering (p. 2580)
- Entomology and Plant Pathology (p. 2600)
- Environmental Sciences (p. 2613)
- Horticulture and Landscape Architecture (p. 2628)
- International Agriculture (p. 2656)
- Natural Resource Ecology and Management (p. 2659)
- Plant and Soil Sciences (p. 2689)

Undergraduate Programs

The Bachelor of Science in Agricultural Sciences and Natural Resources degree is offered in the following major fields of study: agribusiness, agricultural communications, agricultural economics, agricultural education, agricultural leadership, agricultural systems technology, animal science, biochemistry and molecular biology, entomology, environmental science, food science, horticulture, natural resource ecology and management, and plant and soil sciences. The Bachelor of Landscape Architecture is also offered in the Ferguson College of Agriculture. Every major must meet the College/Departmental requirements for the Ferguson College of Agriculture. Most departments offer one or more minors. The requirements for the minors are available from the department offering the specified minor. The college also offers undergraduate certificate programs in equine enterprise management, food safety, and ethical leadership.

- Agribusiness, BSAG (p. 2496)
- Agribusiness: Accounting Double Major, BSAG (p. 2498)
- Agribusiness: Agricultural Communications Double Major, BSAG (p. 2500)
- Agribusiness: Community and Regional Analysis, BSAG (p. 2502)
- Agribusiness: Crop and Soil Sciences, BSAG (p. 2504)
- Agribusiness: Farm and Ranch Management, BSAG (p. 2506)
- Agribusiness: International, BSAG (p. 2508)
- Agribusiness: Natural Resources, BSAG (p. 2510)
- Agribusiness: Pre-Law, BSAG (p. 2512)
- Agribusiness: Pre-Veterinary Business Management, BSAG (p. 2515)
- Agricultural Communications, BSAG (p. 2483)
- Agricultural Economics, BSAG (p. 2518)
- Agricultural Education: Multidisciplinary, BSAG (p. 2527)
- Agricultural Leadership, BSAG (p. 2533)
- Agricultural Leadership: Extension Education, BSAG (p. 2535)
- Agricultural Leadership: International Studies, BSAG (p. 2537)
- Agricultural Systems Technology, BSAG (p. 2588)
- Animal Science: Business/Pre-Law, BSAG (p. 2552)
- Animal Science: General Option, BSAG (p. 2554)
- Animal Science: Pre-Veterinary/Pre-Medical, BSAG (p. 2556)
- Animal Science: Production and Operations, BSAG (p. 2558)
- Biochemistry and Molecular Biology, BSAG (p. 2574)
- Biochemistry and Molecular Biology: Biotechnology, BSAG (p. 2576)
- Biochemistry and Molecular Biology: Pre-Medical or Pre-Veterinary Science, BSAG (p. 2578)
- Entomology: Insect Biology and Ecology, BSAG (p. 2607)
- Entomology: Pre-Professional, BSAG (p. 2609)
- Environmental Science: Environmental Policy, BSAG (p. 2622)
- Environmental Science: Natural Resources, BSAG (p. 2624)
- Environmental Science: Water Resources, BSAG (p. 2626)
- Food Science, BSAG (p. 2563)
- Horticulture: Horticultural Business, BSAG (p. 2640)
- Horticulture: Horticultural Food Safety, BSAG (p. 2642)
- Horticulture: Horticultural Science, BSAG (p. 2644)
- Horticulture: Landscape Management, BSAG (p. 2646)
- Horticulture: Public Horticulture, BSAG (p. 2648)
- Horticulture: Turf Management, BSAG (p. 2650)
- Horticulture: Urban Horticulture, BSAG (p. 2652)
- Landscape Architecture, BLA (p. 2654)
- Natural Resource Ecology & Management: Fisheries & Aquatic Ecology, BSAG (p. 2674)
- Natural Resource Ecology & Management: Forest Ecology & Management, BSAG (p. 2676)
- Natural Resource Ecology & Management: Rangeland Ecology & Management, BSAG (p. 2678)
- Natural Resource Ecology & Management: Wildlife Biology & Preveterinary Science, BSAG (p. 2681)
- Natural Resource Ecology & Management: Wildlife Ecology & Management, BSAG (p. 2684)
- Plant and Soil Sciences: Agronomic Business, BSAG (p. 2702)
- Plant and Soil Sciences: Crop Production and Management, BSAG (p. 2704)
- Plant and Soil Sciences: Plant Biotechnology and Improvement, BSAG (p. 2706)
- Plant and Soil Sciences: Soil and Water Resources, BSAG (p. 2708)

The Biosystems Engineering degree program is jointly administered by the Ferguson College of Agriculture and the College of Engineering, Architecture and Technology.

- Biosystems Engineering: Bioprocessing & Food Processing, BSBE (p. 2590)
- Biosystems Engineering: Biosystems Engineering, BSBE (p. 2592)
- Biosystems Engineering: Environmental and Natural Resources, BSBE (p. 2594)
- Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE (p. 2596)
- Biosystems Engineering: Pre-Medical, BSBE (p. 2598)

Certificates

Undergraduate Certificates

- Equine Enterprise Management, UCRT (p. 2560)
- Food Safety, UCRT (p. 2561)
- Pest Management, UCRT (p. 2612)

Minors

- Agricultural Economics and Agribusiness (AEAB), Minor (p. 2517)
- Agricultural Leadership (AGLE), Minor (p. 2532)
- Agricultural Real Estate Appraisal (AREA), Minor (p. 2520)
- Agronomy (AGRN), Minor (p. 2701)
- Animal Science (ANSI), Minor (p. 2551)
- Biochemistry (BIOC), Minor (p. 2573)
- Entomology (ENTO), Minor (p. 2606)
- Environmental Economics, Politics and Policy (EEPP), Minor (p. 2521)
- Environmental Science (ENVR), Minor (p. 2621)
- Fisheries and Aquatic Ecology (FAEC), Minor (p. 2672)
- Food Science (FDSC), Minor (p. 2562)
- Forestry (FOR), Minor (p. 2673)
- Horticulture (HORT), Minor (p. 2639)
- Natural Resource Ecology and Management (NREM), Minor (p. 2686)
- Pest Management (PEST), Minor (p. 2611)
- Rangeland Ecology and Management (REM), Minor (p. 2687)
- Soil Science (SOIL), Minor (p. 2710)
- Wildlife Ecology (WLEC), Minor (p. 2688)

Graduate Programs

Graduate study is available in all Ferguson College of Agriculture academic departments and in the multidisciplinary international agriculture program. In addition to the Master of Agriculture and Master of Science degrees that may be obtained through several departments, the Doctor of Philosophy degree (PhD) may be earned in the following areas: agricultural economics, agricultural education, biosystems engineering, animal science, biochemistry and molecular biology, crop science, entomology, food science, plant pathology, soil science,

natural resource ecology and management and in horticulture through interdisciplinary programs in crop science, and plant science.

- Agribusiness, MAG (p. 2494)
- Agricultural Communication, MS (p. 2481)
- Agricultural Economics, MS/PhD (p. 2494)
- Agricultural Education, MS/PhD (p. 2525)
- Agricultural Leadership, MAG (p. 2531)
- Animal Science, MS/PhD (p. 2550)
- Biochemistry and Molecular Biology, MS/PhD (p. 2571)
- Crop Science, PhD (p. 2699)
- Environmental Science, MS (p. 3214)
- Environmental Science, PhD (p. 3000)
- Entomology, MS/PhD (p. 2604)
- Fisheries and Aquatic Ecology, MS/PhD (p. 2670)
- Food Science, MS/PhD (p. 2550)
- Forest Resources, MS/PhD (p. 2670)
- Horticulture, MS (p. 2628)
- International Agriculture, MAG/MS (p.)
- Plant and Soil Sciences, MS (p. 2699)
- Plant Pathology, MS/PhD (p. 2604)
- Rangeland Ecology and Management, MS/PhD (p. 2670)
- Soil Science, PhD (p. 2699)
- Wildlife Ecology and Management, MS/PhD (p. 2670)

Agricultural Communications

Modern agriculture, with its diversity and specialization, requires accurate communication between industry leaders and the public. Education in agricultural communications prepares students to provide the necessary communications link mixing the most current media platforms with traditional principles.

By majoring in agricultural communications, students gain communications education with industry specific classes in advertising and public relations, Web design, magazine writing and production, radio and television broadcasting, photography, reporting and newswriting, or research report writing. Opportunities also are available for the student to develop a double-major program with other departments in the Ferguson College of Agriculture.

For the graduate with a bachelor's degree in agricultural communications, career opportunities are abundant in the agricultural production industry and in service organizations as well as with publishing firms, broadcast stations, trade publications or related media.

Courses

AGCM 2113 Introduction to Agricultural Communications
Prerequisites: ENGL 1213 or 1413. Major in AGCM or consent of instructor.
Description: Fundamentals of agricultural news writing and other communication methods. Careers in and the role of the media in agriculture and related fields. Previously offered as AGCM 2103 and AGCM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 3100 Special Topics in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Investigation of specialized and/or advanced topics and issues related to agricultural communications. Previously offered as AGCM 3101. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 3103 Written Communications in Agricultural Sciences and Natural Resources
Prerequisites: ENGL 1213; College of Agricultural Sciences and Natural Resources student.
Description: Understanding and application of writing principles and communications theory as related to public issues in agriculture, food and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 3113 Writing and Editing for Agricultural Publications
Prerequisites: AGCM 2113 with a grade of "C" or better; major in agricultural communications.
Description: Interviewing, reporting, writing, and editing for agricultural publications.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3123 Audio and Video Storytelling in Agricultural Communications
Prerequisites: Grade of "C" or better in AGCM 2113; Grade of "C" or better in AGCM 3233 or AGCM 4233, or concurrent enrollment in AGCM 3233.
Description: Exploration and application of audio and video media storytelling techniques for agricultural communicators as used in promoting, marketing and communicating about agriculture, food, natural resources and the environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3203 Oral Communications in Agricultural Sciences & Natural Resources (S)
Prerequisites: Student in the College of Agricultural Sciences and Natural Resources.
Description: Application of oral communications skills used in the dissemination of information related to agricultural sciences and natural resources, and related topics. Acquisition of interpersonal communications skills and small group, impromptu and professional presentation skills.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Society & Human Behavior

AGCM 3213 Layout and Design for Agricultural Publications
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Fundamentals of layout and design as applied to agricultural publications. Practical application of design principles, typography, design software and printing practices.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3223 Digital and Online Media in Agricultural Communications
Prerequisites: AGCM 2113 and AGCM 3213 with a "C" or better; major in agricultural communications.
Description: Fundamentals of using digital and online media and mass communication for agriculture and natural resources, including web, social media and email marketing. Practical application of theory and skills related to design, management and evaluation of digital and online media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 3233 Basic Photography and Photo Editing for Agriculture
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Beginning course focusing on photographic equipment, related software and photo composition in an agricultural setting.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 2 Contact: 5 Other: 2
Levels: Undergraduate
Schedule types: Independent Study, Lab, Lecture, Lecture Lab Indep Study
Department/School: Ag Ed, Comm & Leadership

AGCM 3503 Issues Management and Crisis Communications in Agriculture and Natural Resources
Prerequisites: Junior or senior standing; Major in CASNR.
Description: Theoretical perspectives and practical applications of issues management, crisis management, and crisis communications principles. Development of knowledge, skills, and abilities necessary for identifying and managing issues faced by organizations; leading organizations through crises; and communicating before, during and after crisis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4113 Features Writing and Editing for Agricultural Publications
Prerequisites: AGCM 3113 with a grade of "C" or better; major in agricultural communications or consent of instructor.
Description: Brainstorming, researching, interviewing, developing, writing and editing feature stories for agricultural publications. May not be used for degree credit with AGCM 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4203 Professional Development in Agricultural Communications
Prerequisites: AGCM 2113 with a "C" or better; major in agricultural communications.
Description: Professional preparation and personal development for careers in agricultural communications, including business communications writing, resume and portfolio development, presentation delivery, financial planning and management, networking, and job interview skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 4233 Agricultural Photography Tour
Description: Agricultural photography travel course focused on advanced composition techniques including but not limited to night photography, portraits, painting, etc. Students will be exposed to many cultural and agricultural sites from a photographic perspective. No credit for students with credit in AGCM 5233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4300 Internships in Agricultural Communications
Prerequisites: Consent of internship coordinator and adviser.
Description: Supervised work experience with approved employers in agricultural communications. Presentation required following the internship experience. Previously offered as AGCM 4500. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 4403 Planning Campaigns for Agriculture and Natural Resources
Prerequisites: AGCM 3113, AGCM 3213 and AGCM 3223 with a "C" or better; major in agricultural communications.
Description: Communications campaign development for agriculture and natural resources activities and issues, including development of materials, budgets and contracts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4413 Agricultural Communications Capstone
Prerequisites: AGCM 3213 and AGCM 3233 or AGCM 4233, and AGCM 4113 with a "C" or better; senior or graduate standing in agricultural communications.
Description: The development of an agricultural magazine through advanced feature writing and editing, page layout, graphic design, photography, and sponsor communications as well as an understanding of the printing process. May not be used for degree credit with AGCM 4413.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 4990 Problems in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Small group and individual study and research in problems relating to communications within the agricultural sector and from the agricultural sector to other constituencies. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5000 Research and Thesis
Prerequisites: Graduate standing.
Description: Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5100 Special Topics in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Investigation of specialized and/or advanced topics and issues related to agricultural communications. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5103 History and Philosophical Foundations of Agricultural Communications
Prerequisites: Graduate standing.
Description: Discussion of the history, philosophical foundations and current issues regarding agricultural communications and the land-grant system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5113 Features Writing and Editing for Agricultural Publications
Prerequisites: AGCM 3113 with a grade of "C" or better; major in agricultural communications or consent of instructor.
Description: Brainstorming, researching, interviewing, developing, writing and editing feature stories for agricultural publications. May not be used for degree credit with AGCM 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5123 Advanced Audio and Video Storytelling in Agricultural Communications
Description: Application of audio and video storytelling concepts to communicating about issues in agriculture, food, natural resources, and the environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5132 Writing for Scholarly Publications in Agricultural Sciences and Natural Resources
Description: Development of scientific writing skills for agricultural sciences and natural resources disciplines, including research proposals, theses, dissertations, conference papers, and journal articles.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5133 Agricultural Photography and Photo Editing
Description: Photographic history, theory and research along with practical knowledge in equipment, software, composition, and the photographic light triangle. May not be used for degree credit with AGCM 3233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 2 Contact: 5 Other: 2
Levels: Graduate
Schedule types: Independent Study, Lab, Lecture, Lecture Lab Indep Study
Department/School: Ag Ed, Comm & Leadership

AGCM 5203 Theory and Practice in Agricultural Communications
Prerequisites: Graduate standing.
Description: The study of major communication theories and theorists in the context of agricultural communications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5213 Advanced Concepts in Agricultural Publishing
Prerequisites: Graduate standing.
Description: Analysis, redesign and creation of agricultural publications. Evaluation of audience, production, advertising and editorial content.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5223 Digital and Online Media in Agricultural Communications
Prerequisites: Consent of instructor.
Description: Fundamentals of using digital and online media and mass communication for agriculture and natural resources, including web, social media and email marketing. Practical application of theory and skills related to design, management and evaluation of digital and online media. May not be used for degree credit with AGCM 3223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5233 Agricultural Photography Tour
Description: Agricultural photography travel course focused on advanced composition techniques including but not limited to night photography, portraits, painting, etc. Students will be exposed to many cultural and agricultural sites from a photographic perspective. No credit for students with credit in AGCM 4233.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5303 Communicating Ethical Issues in Agriculture
Prerequisites: Graduate standing.
Description: An introduction to communicating ethical theories in the context of agriculture. Ethical theory and current research are used to critique contemporary issues in agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5403 Public Relations Campaigns in Agricultural Sciences and Natural Resources
Prerequisites: AGCM 5213.
Description: Public relations campaign development for agriculture and natural resources organizations and issues, including public relations theory, strategic planning and campaign material development. No credit for students with credit in AGCM 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5413 Agricultural Communications Capstone
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGCM 5503 Risk and Crisis Communication in Agricultural Sciences and Natural Resources
Description: Development of risk and crisis communication skills and knowledge with special emphasis in agricultural sciences and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGCM 5990 Advanced Studies in Agricultural Communications
Prerequisites: Consent of supervising professor.
Description: Individual and small group study or research in agricultural communications topics and issues. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

Undergraduate Programs

- Agricultural Communications, BSAG (p. 2483)

Graduate Programs

The Master of Science degree in Agricultural Communications is designed to build mastery of knowledge in key areas such as communication theory, history, philosophy, technology, advanced communication skills and research and data analysis. The Master of Science degree in agricultural communications reflects the distinctive body of knowledge, research base, professional delivery, and program focus of the discipline. In addition, the program introduces and requires students to apply research tools and methods.

The Master of Science program offers students two options for completion of the degree: thesis option and formal report option. The thesis option requires 30 approved credit hours of coursework, which includes six credit hours to complete a thesis following the graduate college format. The formal report option requires 32 approved semester credit hours of coursework, including two credit hours to create a formal report.

The Doctor of Philosophy program in Agricultural Education, Communications and Leadership is designed to prepare graduates for careers in professional education, supervision, administration, curriculum development and other areas of professional leadership in agriculture, agricultural extension, career and technology, and agricultural communications. Within the minimum 60-credit hour requirement, 19 credit hours must be completed in the core area. In addition, 11 credit hours must be completed in an area of specialization such as agricultural communications, Extension, technical agriculture, educational administration, or other similar areas. The additional hours include 15 hours of research design and statistics and 15 hours for the dissertation.

Graduate Admission Requirements

Students seeking admission to the master's degree program must have earned a bachelor's degree in agricultural communications or a closely related field. A student with background deficiencies must compensate for such deficiencies before completing the Master of Science degree. Evidence of academic ability (2.80 GPA or above) in undergraduate coursework is required. Two letters of reference and a statement of purpose are also required. Graduate Record Exam (GRE) scores are required for students seeking admission to the Master of Science degree program with an undergraduate GPA below 3.25.

Admission to the doctoral degree program is based upon evidence the applicant meets the general requirements of the Graduate College, has demonstrated superior achievement, and can successfully complete a doctoral program as evidenced by two letters of recommendation, GRE scores, a minimum of 2.80 undergraduate GPA and 3.00 graduate GPA, and a philosophy statement and goals. Alternative criteria may be considered by the graduate committee for those who submit ample supportive evidence of other exemplary qualifications.

Faculty

J. Shane Robinson, PhD—Professor and Head
Professors: D. Dwayne Cartmell, PhD; M. Craig Edwards, PhD; Shelly R. Legg, PhD; Jon W. Ramsey, PhD; H. Robert Terry, Jr., PhD
Associate Professor: Angel Riggs, PhD; Quisto Settle, PhD
Assistant Professors: Carrie Baker, PhD; Courtney Brown, PhD; Lauren Cline, PhD; Bradley Coleman, PhD; Chris Eck, PhD; Audrey E. H. King, PhD

Lecturers: Kenna Sandberg, MS; Nathan Smith, PhD; Kaylee Travis, MS

Agricultural Communications, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1493	Applications of Modern Mathematics (Q)	
MATH 1513	College Algebra (Q)	
MATH 1813	Preparation for Calculus (Q)	
STAT 2013	Elementary Statistics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Any course designated (N)		6
Must include one Laboratory-Based Inquiry (L) course		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
or ECON 2103	Introduction to Microeconomics (S)	
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AECL 1101	Orientation to Agricultural Education, Communications and Leadership	1
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	4
or ANSI 1124	Introduction to the Animal Sciences	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
Select one course from each of the following lists:		
Group 1: [2]		2
FDSC 1133	Fundamentals of Food Science	
FDSC 2102	Regional Diversity in Food Production, Selection and Consumption (D)	
ANSI 2233	The Meat We Eat	
ANSI 2253	Meat Animal and Carcass Evaluation	
NSCI 2013	Principles of Human Nutrition (N)	
NSCI 3543	Food and the Human Environment (GS)	
Group 2: [2]		3
AGEC 4503	Environmental Economics and Resource Development	
ENPP 2143	Global Agricultural Biosecurity and Forensics	
ENTO 2003	Insects and Society (N)	
ENTO 2223	Insects in Global Public Health (N)	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
ENVR 1113	Elements of Environmental Science (N)	
NREM 1014	Introduction to Natural History (LN)	
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3: [2]		3
AGED 4713	International Programs in Agricultural Education and Extension (G)	
AGEC 2303	Food Marketing to a Diverse Population (D)	
AGEC 3403	Agricultural Small Business Management	
AGEC 3423	Farm and Agribusiness Management	
AGEC 3463	Agricultural Cooperatives	
AGLE 2303	Agricultural Leaders in Society (S)	
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	
AGLE 3403	Facilitating Social Change in Agriculture	
AGLE 3803	Global Leadership in Agriculture (G)	
Written & Oral Communications		
AGCM 2113	Introduction to Agricultural Communications	3
AGCM 3113	Writing and Editing for Agricultural Publications	3
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	
SPCH 2713	Introduction to Speech Communication (S) [1]	

Hours Subtotal		**26**
Major Requirements		
Core Courses		
AGCM 3123	Audio and Video Storytelling in Agricultural Communications	3
AGCM 3213	Layout and Design for Agricultural Publications	3
AGCM 3223	Digital and Online Media in Agricultural Communications	3
AGCM 3233	Basic Photography and Photo Editing for Agriculture	3
or AGCM 4233	Agricultural Photography Tour	
AGCM 3503	Issues Management and Crisis Communications in Agriculture and Natural Resources	3
AGCM 4113	Features Writing and Editing for Agricultural Publications	3
AGCM 4203	Professional Development in Agricultural Communications	3
AGCM 4300	Internships in Agricultural Communications	2
AGCM 4403	Planning Campaigns for Agriculture and Natural Resources	3
AGCM 4413	Agricultural Communications Capstone	3
AGEC 3323	Agricultural Product Marketing and Sales	3
or MKTG 3213	Marketing (S)	
AGEC 3703	Issues in Agricultural Policy	3
or NREM 4043	Natural Resource Administration and Policy	
or POLS 3493	Public Policy	
or POLS 4363	Environmental Law And Policy	
or POLS 4593	Natural Resources and Environmental Policy	
AGEC 3713	Agricultural Law	3
or AGEC 3723	Environmental Law for Agriculture and Natural Resources	
or LSB 3213	Legal and Regulatory Environment of Business	
Select one of the following courses:		3
FIN 2123	Personal Finance	
ACCT 2003	Survey of Accounting	
ACCT 2103	Financial Accounting	
Related Courses		
To be selected from courses in the following areas:		13
AECL, AG, AGCM, AGEC, AGED, AGLE, ANSI, ART, AST, BIOC, DHM, ECON, EEE, ENTO, ENGL, ENVR, FDSC, GEOG, GEOL, HIST, HORT, HTM, MC, MGMT, MKTG, MMJ, NREM, PLNT, POLS, PSYC, SC, SOC, SOIL, SPAN, SPCH, STAT, or TH		
Hours Subtotal		**54**
Electives		
0 or hours to complete required total for degree		
Total Hours		**120**

[1]

College & Departmental requirements that may be used to meet General Education requirements.

[2]

If used as (N) or (S) courses in General Education, hours in this block reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- The student must earn a minimum grade of “C” in all AGCM courses.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Economics

The Department of Agricultural Economics at Oklahoma State University offers programs of study leading to the BS, MS, MAg and PhD degrees in Agricultural Economics and the BS and MAg degree in Agribusiness. Agricultural economics and agribusiness curricula study the economic relationships among individuals, firms and service agencies in agriculture and between the agricultural sector and other sectors of the economy. The department's courses emphasize the economic issues and concepts associated with producing, processing, marketing, and consuming agricultural goods and services and those used in the industry.

Undergraduate programs in Agricultural Economics and Agribusiness combine instruction in technical agricultural sciences with education in the application of economic and business management principles and tools. The agricultural economist or agribusiness person draws upon the physical and social sciences to outline, understand and solve economic problems created by agriculture's dynamic operating environment. Curricula in the Department of Agricultural Economics emphasize the decision-making and problem-solving skills used in the management of agricultural production and marketing firms.

Study in agricultural economics or agribusiness prepares students to excel in many challenging careers. Many graduates work to improve food production and processing throughout the world. Other graduates work with government policies that affect the food and fiber sector. Others assist rural communities to adjust and thrive in the rapidly changing world. Graduates also help protect and maintain natural resources and the environment for the greatest benefit of society. Many graduates choose career paths that lead them far from the farm; and others choose to return to family businesses.

Agricultural Economics

The Agricultural Economics BS degree trains students to analyze problems and make decisions using a solid framework of economic, business, mathematical and statistical principles. Students may tailor study to a wide variety of career interests. The Agricultural Economics degree plan emphasizes quantitative studies including calculus and statistical methods. The degree prepares students for graduate study in agricultural economics or related fields or for a variety of employment opportunities at competitive salaries in private industry and government agencies that require more quantitative skills.

Agribusiness

The Agribusiness BS degree trains students to analyze problems and make decisions using a solid framework of economic and business principles. In addition, the agribusiness degree targets the skills needed for careers in agribusiness firms, including all areas of food and fiber production, processing and marketing. Students may choose from nine degree options: Farm and Ranch Management, Crop and Soil Science, International, Pre-Law, Pre-Veterinary Business Management, Natural Resources, and Community and Regional Analysis, or a double major with Agricultural Communications or Accounting. Agribusiness students also may develop a minor area of study or other double major by selecting various course electives. Employment opportunities for agribusiness graduates are widely diverse, including jobs with farms, agricultural advisors, processing firms, wholesalers and retailers of food and fiber products, farm input supply firms, banks and other financial services firms, utilities and educational institutions.

Minor in Agricultural Economics and Agribusiness

The minor helps students understand the basics of economics and business within the context of Agricultural Sciences and Natural Resources. Requirements of the minor include an introduction to Agricultural Economics or Microeconomics and Financial Accounting or Survey of Accounting plus 15 hours controlled electives of upper division Agricultural Economics courses.

Minor in Environmental Economics, Politics and Policy

This minor offered in cooperation with Political Science helps students understand economics, politics and policy issues related to environmental issues. Requirements of the minor include an introduction to Agricultural Economics or Microeconomics, a 3000-level environmental economics course, Environmental Economics and Resource Development and 12 hours controlled electives from related upper-division courses.

Minor in Agricultural Real Estate Appraisal

This minor helps students understand the basis of agricultural real estate appraisal. Requirements of the minor include financial and managerial accounting or survey of accounting and foundational accounting skills, statistics, quantitative methods in agricultural economics, farm and agribusiness management, agricultural finance and farm appraisal.

Courses

AGEC 1101 Agricultural Economics and Agribusiness Experience
Description: Developing connections between the student's major curriculum, career goals specific to agricultural economics or agribusiness, and networking with other students, faculty and alumni.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 1113 Introduction to Agricultural Economics (S)
Description: Economic theory of production, marketing, and consumption of agricultural products and natural resources. The role and structure of agricultural sciences and natural resources within the American economy. Policies to achieve efficiency and welfare goals in agriculture. No general education credit for students also taking ECON 1113 or ECON 2103. Previously offered as AGEC 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Society & Human Behavior

AGEC 2303 Food Marketing to a Diverse Population (D)
Description: Food and beverage demand and preferences of socially and ethnically constructed groups in American Society. Real life issues of marketing to a diverse population, including Native, Asian, African and Hispanic Americans, and low-income populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Diversity

AGEC 2313 Case Studies in Agricultural Trade and Development
Prerequisites: A course in economics or marketing.
Description: Real world issues in international trade and development of agricultural and food products. Development of an understanding of issues facing policymakers, producers, consumers, and other groups in examining the costs and benefits of various trade and development programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for 1-3 credit hours, max of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Honors Credit

AGEC 2990 Problems in Agricultural Economics and Agribusiness
Description: Directed study on topics related to agricultural economics or agribusiness. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 3010 Internship in Agricultural Economics
Prerequisites: Approval of internship committee and advisor.
Description: Supervised work experience with approved public and private employers in agricultural economics, including banks, farm credit services, agriculture chemical firms, Soil Conservation Service, congressional offices and other opportunities. Credit will not substitute for required courses. Graded on a pass-fail basis. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 3023 Farm to Fork
Description: Survey of agriculture and natural resources and their relationships to society. Role of advanced scientific technologies in alternative systems of food production and distribution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3101 Professional Career Development
Prerequisites: Major in Agricultural Economics or Agribusiness or consent of instructor.
Description: Overview of the various areas of specialization within agricultural economics and agribusiness and their associated career opportunities and obligations. Development and improvement of written communication, oral communication and leadership skills. Previously offered as AGEC 4902.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3183 Agribusiness Accounting and Taxation
Prerequisites: 60 semester credit hours, including ENGL 1113 and MATH 1513 or equivalent.
Description: Development of the ability to read, analyze, and use accounting information to improve decision-making and tax planning. Same course as ACCT 3183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3213 Quantitative Methods in Agricultural Economics
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (MATH 1483 or MATH 1513 or MATH 2103 or MATH 2144, each with a grade of "C" or better; or Math placement score required for MATH 2103 (see placement.okstate.edu)).
Description: Indices, graphics, budgeting, interest calculations, compounding and discounting, basic statistic measures, regression, optimization and computer applications.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 3323 Agricultural Product Marketing and Sales
Prerequisites: 40 semester credit hours, including (AGEC 1113 or ECON 2003 or ECON 2103) and ENGL 1113.
Description: Fundamentals of agricultural marketing management and planning applied to specific agricultural product (input and output) marketing problems. Institutional differences between agricultural and non-agricultural marketing environments. The role of the individual sales representative in a marketing and sales organization. Written and oral presentations of marketing and sales information required of all students. Previously offered as AGEC 4313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3333 Agricultural Marketing and Price Analysis
Prerequisites: AGEC 3213 with a minimum grade of C.
Description: Supply, demand, and price determination within the institutional environment of agricultural commodity markets. Roles provided by government intervention, marketing agreements, and cooperatives in agricultural markets. Includes graphical, mathematical, and statistical analysis of commodity markets. Fundamentals of futures markets applied to agriculture. Previously offered as AGEC 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3403 Agricultural Small Business Management
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ACCT 2003 or ACCT 2103 or ACCT 3183 or AGEC 3183).
Description: The essentials of operating an agricultural small business. An introduction to the planning, organizing, marketing, managing, financing, controlling and operating an agricultural small business. Not recommended for agricultural economics or agribusiness majors. No credit for students with prior credit in 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3423 Farm and Agribusiness Management
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ACCT 2003 or ACCT 2103 or ACCT 3183 or AGEC 3183).
Description: Fundamentals of managerial functions as applied to agricultural firms. Organization and management of human, financial, and physical assets for the profitable operation of an agricultural business. An introduction to business planning, enterprise budgeting, financial statements and record keeping. Previously offered as AGEC 3413.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 3463 Agricultural Cooperatives
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: An evaluation of the fundamental principles, objectives, structure, finance, and management associated with the cooperative organization. An analysis of the cooperative business organization within the modern economy: history, legislation and evolution. An examination of careers related to cooperatives. Previously offered as AGEC 3313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3503 Natural Resource Economics
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: Framework for analyzing natural resource management decisions. Applications of microeconomic theory to the management of soil, water, and other resources, with special emphasis on the institutions having an impact on management opportunities. Supply of and demand for natural resources, resource allocation over time, rights of ownership, public issues of taxation, police power and eminent domain.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3603 Agricultural Finance
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3423) and (ACCT 2203 or ACCT 2003).
Description: Analyze farm and agribusiness financial statements. Understand the relationship between firm growth and financial leverage. Time value of money concepts and their application to capital budgeting. Discuss how agricultural lenders acquire and use funds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3703 Issues in Agricultural Policy
Prerequisites: AGEC 1113 or ECON 2003 or ECON 2103.
Description: Emerging issues related to agricultural policy in the United States.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3713 Agricultural Law
Prerequisites: 40 semester credit hours, including AGEC 1113 or ECON 2003 or ECON 2103.
Description: Survey of law with emphasis on agricultural problems, applications, and strategies for managing legal risk in the agribusiness setting. Contract law, tort law, property law, real estate transactions, business organization, estate planning, debtor/creditor law, environmental law and water/resources law. Previously offered as AGEC 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3723 Environmental Law for Agriculture and Natural Resources
Description: Analysis of U.S. environmental laws and regulations with application to agricultural production and natural resource management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3803 International Agricultural Economics Tour (G)
Prerequisites: Consent of instructor.
Description: A two-three week international travel component. An integrated approach to the cultural, agricultural, historical, technological, political, economic, and religious backgrounds of the region. Comparison of the agricultural business environment of the region to that of the U.S. Previously offered as AGEC 4803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: International Dimension

AGEC 3810 Domestic Agricultural Economics Tour
Prerequisites: Consent of instructor.
Description: An integrated approach to the cultural, agricultural, historical, technological, political and economic backgrounds of an agricultural region of the United States. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered 1-3 credit hours, max of 9 hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: Honors Credit

AGEC 3990 Special Problems in Agricultural Economics
Description: Directed study of selected agricultural economics topics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 4101 Agricultural Economics Seminar
Prerequisites: Senior standing and agricultural economics or agribusiness major status.
Description: Contemporary problems in agricultural economics. Previously offered as AGEC 4911.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4213 Advanced Quantitative Methods in Agricultural Economics
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Quantitative analysis of agricultural production and markets including risk and uncertainty. Introduction to simulation. Development of statistical and software skills. Written presentation of an analysis of data. Previously offered as AGEC 3203. May not be used for Degree Credit with AGEC 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4223 Quantitative Supply Chain Management in Agribusiness
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Challenge in food supply chain management. Tools to solve logistics problems including traveling salesperson, vehicle routing, and distribution center problems. Forecasting sales and queuing theory. Introduction to specialized software used in supply chain management. May not be used for Degree Credit with AGEC 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4243 Researching Consumer Food Preferences
Prerequisites: (AGEC 1113 or ECON 2003 or ECON 2103) and (ANSI 1124 or FDSC 1133) and (STAT 2013 or STAT 2023 or STAT 4013).
Description: Design, implementation, and interpretation of research in consumer food preferences. Includes design of consumer surveys, conducting consumer interviews, preparing food and questionnaires for taste-test experiments, targeting and recruiting scientifically valid samples, the statistical analysis of data, and communication of results. Previously offered as FDSC 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4333 Commodity Futures Markets
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3333).
Description: The economics of commodity futures markets. The vocabulary of futures markets and the mechanics of trading and hedging. Basis and producer marketing strategies. Fundamental analysis and statistical analysis of data. Technical analysis, behavioral finance, efficient market hypothesis and basics of option pricing. May not be used for degree credit with AGEC 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4343 International Agricultural Markets and Trade (G)
Prerequisites: ECON 3023 OR ECON 3113.
Description: Contemporary international agricultural trade theory and applications. Tools to identify, evaluate critically, and seek solutions to complex international trade and development problems, such as gains from trade, comparative advantage, impacts of trade barriers on social welfare, export promotion effectiveness, trade impacts on environment and land degradation, free trade areas and impacts of genetically modified crops on trade.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics
General Education and other Course Attributes: International Dimension

AGEC 4403 Advanced Farm and Ranch Management
Prerequisites: AGEC 3423 with a minimum grade of C, and AGEC 3603 with a minimum grade of C or concurrent enrollment.
Description: The development of problem solving and risk management skills needed on the modern farm or ranch. Use of spreadsheets to perform production planning and analysis of farm and ranch problems with linear programming, simulations, and other tools. Analysis of the acquisition of resources and the use of information systems in managing the individual farm or ranch business. May not be used for Degree Credit with AGEC 5043.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 4423 Advanced Agribusiness Management
Prerequisites: AGEC 3333 and (AGEC 3603 or concurrent).
Description: Application of modern decision theory in the uncertain environment that the agricultural business operates. Planning, organizing, implementing, coordinating, and controlling problems associated with establishing an agricultural business, achieving firm growth and operating the firm through time. Use of spreadsheets to perform production planning and analysis related to agricultural business operation with linear programming, simulations, and other tools. Analysis of the interaction of resources, prices and production alternatives. Previously offered as AGEC 4323. May not be used for Degree Credit with AGEC 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4503 Environmental Economics and Resource Development
Prerequisites: AGEC 3503 or ECON 3023 or ECON 3113 or consent of instructor.
Description: Economic, social, and political factors relating to conservation, natural resource development, and environmental quality. Valuation of priced and non-priced natural and environmental resources. Analysis of environmental and natural resource policy and the role of public and private agencies in conservation and development. May not be used for Degree Credit with AGEC 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4513 Farm Appraisal
Prerequisites: AGEC 3423.
Description: Estimating the market value of agricultural real estate using the three approaches to value - sales comparison, cost and income approaches. Analysis of sales to value the different characteristics of the farm. May not be used for Degree Credit with AGEC 5513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 4613 Advanced Agricultural Finance
Prerequisites: (AGEC 3603 or FIN 3113 with a grade of “B” or better), (ECON 3023 or ECON 3113), and (STAT 2013 or STAT 2023 or STAT 2053 or STAT 4013 or STAT 4053).
Description: Advanced time value of money and financial management concepts as applied to the management of agricultural firms. Incorporating risk into agricultural investment and financial management decisions. Introduction to risk modeling. May not be used for degree credit with AGEC 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4703 American Agricultural Policy
Prerequisites: ("C" or better in AGEC 3333), (MATH 2103 or MATH 2123 or MATH 2144), and (ECON 3023 or ECON 3113 or concurrent).
Description: Economic characteristics and problems of agriculture; evolution and significance of programs and policies. May not be used for Degree Credit with AGEC 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4723 Rural Economics Development
Prerequisites: AGEC 3213.
Description: Concepts, theories, and applications of regional and community economics, including the theories of economic development, analytic techniques, infrastructure and community services, targeted development and associated policies. Focus on domestic rural areas. May not be used for Degree Credit with AGEC 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 4990 Problems of Agricultural Economics
Prerequisites: Consent of instructor.
Description: Research on special problems in agricultural economics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5000 Master's Thesis/Report
Description: For students working on an MS degree in agricultural economics. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5010 Professional Experience in Agricultural Economics or Agribusiness
Prerequisites: Approval of internship committee and advisor.
Description: Supervised professional experience with approved public and private employers in agricultural economics or agribusiness. Designed for Master of Agriculture program. Graded on pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 5013 Advanced Quantitative Methods in Agricultural Economics
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Quantitative analysis of agricultural production and markets including risk and uncertainty. Introduction to simulation. Development of statistical and software skills. Written presentation of an analysis of data. May not be used for degree credit with AGEC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5023 Quantitative Supply Chain Management in Agribusiness
Prerequisites: ("C" or better in AGEC 3213) and (MATH 2103 or MATH 2123 or MATH 2144).
Description: Challenge in food supply chain management. Tools to solve logistics problems including traveling salesperson, vehicle routing, and distribution center problems. Forecasting sales and queuing theory. Introduction to specialized software used in supply chain management. May not be used for degree credit with AGEC 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5033 Commodity Futures Markets
Prerequisites: ("C" or better in AGEC 3213 and AGEC 3333).
Description: The economics of commodity futures markets. The vocabulary of futures markets and the mechanics of trading and hedging. Basis and producer marketing strategies. Fundamental analysis and statistical analysis of data. Technical analysis, behavioral finance, efficient market hypothesis and basics of option pricing. May not be used for degree credit with AGEC 4333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5043 Advanced Farm and Ranch Management
Prerequisites: ("C" or better in AGEC 3423) and (AGEC 3603 or concurrent).
Description: The development of problem solving and risk management skills needed on the modern farm or ranch. Use of spreadsheets to perform production planning and analysis of farm and ranch problems with linear programming, simulations, and other tools. Analysis of the acquisition of resources and the use of information systems in managing the individual farm or ranch business. May not be used for Degree Credit with AGEC 4403.
Credit hours: 3
Contact hours: Lecture: 1 Contact: 3 Other: 2
Levels: Graduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Agricultural Economics

AGEC 5053 Environmental Economics and Resource Development
Prerequisites: AGEC 3503 or ECON 3023 or ECON 3113 or consent of instructor.
Description: Economic, social, and political factors relating to conservation, natural resource development, and environmental quality. Valuation of priced and non-priced natural and environmental resources. Analysis of environmental and natural resource policy and the role of public and private agencies in conservation and development. May not be used for degree credit with AGEC 4503.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5073 Rural Economics Development
Prerequisites: AGEC 3213.
Description: Concepts, theories, and applications of regional and community economics, including the theories of economic development, analytic techniques, infrastructure and community services, targeted development and associated policies. Focus on domestic rural areas. May not be used for degree credit with AGEC 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5101 Research Methodology
Prerequisites: Selection of a thesis advisor and a thesis topic.
Description: Using the scientific method to solve problems related to agriculture. Preparation of a thesis proposal required.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5103 Mathematical Economics
Prerequisites: MATH 2103 or MATH 2123 or MATH 2144, and ECON 3113.
Description: Mathematical tools necessary for formulation and application of economic theory and economic models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5113 Applications of Mathematical Programming
Prerequisites: AGEC 5103 or AGEC 5403.
Description: The application of concepts and principles of existing linear and nonlinear programming techniques to agricultural problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5203 Advanced Agricultural Prices
Prerequisites: AGEC 5103, STAT 4043.
Description: Demand and price structures, price discovery, time series and agricultural price research methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5213 Econometric Methods
Prerequisites: AGEC 5103 and ECON 4213 or STAT 4043.
Description: Application of econometric techniques to agricultural economic problems, theory and estimation of structural economic parameters.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5233 Primary Data Analysis in Economic Research
Prerequisites: AGEC 5213 or concurrent enrollment.
Description: Sampling theory and model-based hypothesis testing for the analysis and reporting of economic models of observational or experimental data. Introduction of classes of general linear models, including qualitative and limited dependent variable models, commonly used to analyze economic problems. Differences and commonalities between frequentist and Bayesian estimation methods and interpretation. Examples pertain to food and fiber markets and production agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5303 Agricultural Market Policy and Organization
Prerequisites: ECON 3112, MATH 2103 or MATH 2144, and STAT 2023 or equivalent.
Description: Role of markets in the food system; Price variation across space, time, and form; Structure, conduct and performance of agricultural industries; Interregional trade theory; and government policies that influence decisions. Previously offered as AGEC 5311.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5321 Agricultural Marketing and Economic Development
Prerequisites: AGEC 5311.
Description: Role of marketing in economic development, focusing on international economics; role of institutions in a market economy.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5331 Agricultural Marketing: Advanced Concepts
Prerequisites: AGEC 5311.
Description: Advanced topics in price variation across space, time, and form. Market and firm efficiency. Market structure, conduct and performance; role of information in a market economy; and other selected topics.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5343 International Agricultural Markets and Trade
Description: Contemporary international agricultural trade theory and applications. Broaden students' understanding of contemporary cultural and economic issues outside the U.S. that affect global demand. Gains from trade and the theory of comparative advantage. No credit for students with credit in AGEC 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5403 Production Economics
Prerequisites: AGEC 5103.
Description: Analysis of micro-static production economics problems; factor-product, factor-factor and product-product relationships; functional forms for technical unit and aggregate production functions; maximizing and minimizing choice rules; firm cost structure; scale relationships.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5423 Agribusiness Management
Prerequisites: AGEC 3333 and (AGEC 3603 or concurrent).
Description: Application of quantitative analysis to the evaluation of business plans for agribusiness firms. Preparation of business plans, including mission statements, financial analyses, marketing plans, personnel and organization requirements of the firm, production and operations plans as well as a contingency plan. Analysis of risk factors associated with agriculturally-based companies. No credit for students with credit in AGEC 4423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5463 Advanced Agricultural Cooperatives
Prerequisites: AGEC 3463 or consent of instructor.
Description: Advanced understanding of cooperative business model and management skills. Advanced cooperative finance including profit center analysis, equity management, working capital management, budgeting and capital budgeting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5483 Bio-Energy Feasibility and Commercialization
Prerequisites: AGEC 1113 or ECON 2103.
Description: Feasibility and commercialization of bio-fuel and bio-based projects. Issues and processes in transitioning a project from pilot scale into commercialization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5503 Economics of Natural and Environmental Resource Policy
Prerequisites: AGEC 4503, ECON 3113, or ECON 3023; and MATH 2103.
Description: Economics of long-term resource use with particular emphasis on agricultural and environmental problems. Methods for estimation of nonmarket prices. Cost benefits analysis of long-term natural resource use and environmental policy. Elementary computer simulation of long-term resource use and environmental policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5513 Farm Appraisal
Prerequisites: AGEC 3423.
Description: Estimating the market value of agricultural real estate using the three approaches to value - sales comparison, cost and income approaches. Analysis of sales to value the different characteristics of the farm. May not be used for degree credit with AGEC 4513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Agricultural Economics

AGEC 5603 Advanced Agricultural Finance
Prerequisites: AGEC 3603 or FIN 3113, ECON 3023 or ECON 3113 and STAT 2023 or equivalent.
Description: Advanced investment and financial management concepts applied firms that operate in the agricultural sector. Incorporating uncertainty and risk into financial modeling and decision making via stochastic simulation and other tools. Risk/return tradeoff for stocks, portfolio management and business investments. May not be used for degree credit with AGEC 4613. Same course as AGEC 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5703 American Agricultural Policy
Prerequisites: ("C" or better in AGEC 3333), (MATH 2103 or MATH 2123 or MATH 2144), and (ECON 3023 or ECON 3113 or concurrent).
Description: Economic characteristics and problems of agriculture; evolution and significance of programs and policies. May not be used for degree credit with AGEC 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5713 Rural Regional Analysis
Prerequisites: AGEC 5103.
Description: Concepts of market and nonmarket based rural welfare; theories of regional growth as applied to rural areas; methods of regional analysis including computable general equilibrium; analysis of policies and programs for improving welfare of rural population groups.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5723 Plan & Pol Devlpmnt
Prerequisites: Master's-level microeconomics, macroeconomics and regression analysis.
Description: Economics of market-based planning and policy analysis for developing countries, topics and tools in macro- and microeconomics of development, and social cost-benefit and project analysis with emphasis on agricultural and public policy. Hands-on application of econometrics, input-output analysis and cost-benefit analysis using econometric software.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5733 Food Import Demand and Trade Policy
Description: Global welfare analysis of national food and agricultural trade and development policies of developed and developing countries. Analysis of import demand systems using real world data and incorporating economic and demographic variables.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5783 Bio-Energy Economics and Sustainability
Prerequisites: AGEC 1113 or ECON 2103.
Description: Economic issues related to supply chains producing bio-energy and bio-based products. Economic, sustainability and social dimensions of these industries. Triple bottom line objectives, life cycle analysis and the principles of feasibility analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 5990 Advanced Studies
Prerequisites: Consent of instructor.
Description: Investigation in designated areas of agricultural economics. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6000 Doctoral Dissertation
Description: Open to students pursuing graduate study in agricultural economics beyond the requirements for a master's degree. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-15 credit hours, maximum of 24 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6102 Teaching Practicum in Agricultural Economics
Prerequisites: Two semesters of graduate study in agricultural economics.
Description: Philosophies of resident and nonresident teaching, general tasks performed, review, evaluation and lecture organization, preparation and presentation.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6103 Advanced Applications of Mathematical Programming
Prerequisites: AGEC 5103, AGEC 5113.
Description: General presentation of nonlinear optimization theory and methods followed by applications of nonlinear programming. Use of GAMS/MINOS optimization software package.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6213 Advanced Econometrics
Prerequisites: AGEC 5213 or ECON 5243; STAT 4203 and AGEC 4213 recommended.
Description: Using advanced econometric techniques in applied research. Linear and nonlinear hypothesis testing; non-nested hypothesis tests; Monte Carlo hypothesis testing; stochastic simulation; misspecification testing. Extensive use of SAS statistical software package.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6222 Spatial Econometrics
Description: Develop concept of spatial dependence. Introduce tools and techniques used to explore spatial dependence including spatial statistics and regression. Use of geographic information system (GIS) software in spatial analysis.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6300 Agricultural Marketing Seminar
Prerequisites: Consent of instructor.
Description: Current developments in theory, techniques for evaluating marketing behavior, market legislation and market development. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6303 Advanced Agricultural Marketing
Prerequisites: AGEC 5303.
Description: Marketing theory, market structure and performance, governmental regulation and policy and bargaining in agricultural markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6400 Seminar in Farm Management and Production Economics
Prerequisites: AGEC 5403 or consent of instructor.
Description: Scientific research methodology applied to problems of resource efficiency. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

AGEC 6403 Advanced Production Economics
Prerequisites: AGEC 5403.
Description: Formulating and solving applied economic optimization problems in agricultural production economics. Expected profit maximization; analyzing data from agronomic experiments; credit scoring; risk models such as stochastic dominance and expected utility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Agricultural Economics

AGEC 6700 Agricultural Policy and Rural Resource Development Seminar
Description: Frontier issues in agricultural policy, natural resources and rural development. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Agricultural Economics

Undergraduate Programs

- Agribusiness, BSAG (p. 2496)
- Agribusiness: Accounting Double Major, BSAG (p. 2498)
- Agribusiness: Agricultural Communications Double Major, BSAG (p. 2500)
- Agribusiness: Community and Regional Analysis, BSAG (p. 2502)
- Agribusiness: Crop and Soil Sciences, BSAG (p. 2504)
- Agribusiness: Farm and Ranch Management, BSAG (p. 2506)
- Agribusiness: International, BSAG (p. 2508)
- Agribusiness: Natural Resources, BSAG (p. 2510)
- Agribusiness: Pre-Law, BSAG (p. 2512)
- Agribusiness: Pre-Veterinary Business Management, BSAG (p. 2515)
- Agricultural Economics, BSAG (p. 2518)

Graduate Programs

The department offers graduate work leading to the Master of Science, the Master of Agriculture and the Doctor of Philosophy degrees. Both thesis and non-thesis options are available at the MS level. PhD students complete a teaching practicum in addition to the research thesis as a part of the degree requirements.

The graduate program stresses development of superior professional competence, suited to the demands of the modern business, academic, government and research environments. Advanced courses concentrate on economic analysis applied to problems of production, distribution and consumption of agricultural products. Courses in economic theory, econometrics, mathematical programming and statistics are an integral part of the program. Primary data analysis, natural resource use, international trade, planning, policy and development are also important topics included in graduate courses.

The faculty provide direction and individual guidance to student research in marketing, production, management of agricultural enterprises, demand and price analysis, land and water use and development, non-market valuation, rural development and planning, agricultural finance, international trade, farm appraisal, agricultural policy, econometrics and experimental economics. Students specialize through course electives and research topics. In addition, an advisory committee guides each student in preparing the program of study to ensure that the student's background, graduate coursework, and research program together lead to the desired depth and breadth of proficiency.

Admission Requirements

Prerequisites to advanced training in agricultural economics are:

1. the desire to understand and solve the complex and changing economic problems faced by agriculture and rural society, and
2. the desire and ability to learn methods of rigorous logical analysis.

In addition, differential calculus, statistics and intermediate macro- and micro-economic theory constitute a minimum background for advanced study in agricultural economics. In certain cases, a student can take part of this work after admission but the work will not count toward a graduate degree.

Acceptance by an advisor in the department is not required prior to admission to the departmental graduate program. GRE test scores are required for admission to the program.

Minors

- Agricultural Economics and Agribusiness (AEAB), Minor (p. 2517)
- Agricultural Real Estate Appraisal (AREA), Minor (p. 2520)
- Environmental Economics, Politics and Policy (EEPP), Minor (p. 2521)

Faculty

Cheryl S. DeVuyst, PhD—Professor and Department Head
Regents Professors: B. Wade Brorsen, PhD; Damona G. Doye, PhD; Phil Kenkel, PhD; Jayson Lusk, PhD
Professors: Chanjin Chung, PhD; Cynda R. Clary, PhD; Eric DeVuyst, PhD; Shannon Ferrell, JD; Rodney Holcomb, PhD; Rodney Jones, PhD; Dayton Lambert, PhD; F. Bailey Norwood, PhD; Derrell S. Peel, PhD; Kellie Raper, PhD; Karl Rich, PhD; Brian Whitacre, PhD
Associate Professors: Courtney Bir, PhD; Amy Hagerman, PhD; Deepthi Kolady, PhD; John Michael Riley, PhD; K. Aleks Schaefer, PhD; Jeff Vitale, PhD
Assistant Professors: Lixia He Lambert, PhD; Hannah Shear, PhD; Bhawna Thapa, PhD

Non-Tenure Track Teaching Assistant Professor: Elizabeth Norwood, PhD
Non-Tenure Track Extension Associate: J.C. Hobbs, MS

Agribusiness, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1, 5]	
MATH 2123	Calculus for Technology Programs I (Q) [1,5]	
MATH 2144	Calculus I (Q) [1,5]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1, 5]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated L/N [1,5]		
One course designated (N) [1,5]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1, 5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
From two of the following groups, select one course:		6
Group 1		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
AGCM 3113	Writing and Editing for Agricultural Publications [5]	
BCOM 3113	Written Communication [5]	
BCOM 3443	Business Communication for International Students [5]	
ENGL 3323	Technical Writing [2, 5]	
Select one of the following: [3]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
Six credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)) [5]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [5]	1
AGEC 3101	Professional Career Development [5]	1

AGEC 3213	Quantitative Methods in Agricultural Economics [5]	3
AGEC 3333	Agricultural Marketing and Price Analysis [5]	3
AGEC 3423	Farm and Agribusiness Management [5]	3
AGEC 3603	Agricultural Finance [5]	3
AGEC 3713	Agricultural Law [5]	3
Select 9 hours from AGEC 4000 level excluding AGEC 4990 [5]		9
ECON 2203	Introduction to Macroeconomics [5]	3
ECON 3113	Intermediate Microeconomics [5]	3
or ECON 3023	Managerial Economics	
Select 6 upper division hours from the following:		6
AGEC, ECON, AGCM 3213, MKTG 3213 or MGMT 3013		
Related Courses		
Check with your Advisor about using these hours and electives to minor in an area in Ferguson College of Agriculture or Spears School of Business (SSB)		
12 hours from Ferguson College of Agriculture or SSB courses not used elsewhere with at least 9 of the 12 hours upper division		12
Hours Subtotal		**56**
Electives		
Select 11 hours or hours to complete required total for degree [4]		11
Hours Subtotal		**11**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block reduced by 3.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

5

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Accounting Double Major, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 144

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [8]	3
or MATH 2123	Calculus for Technology Programs I (Q)	
or MATH 2144	Calculus I (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,2,5,6,8]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (DH)		3
Course designated (GH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1,8]	4
or CHEM 1215	Chemical Principles I (LN)	
or CHEM 1014	Chemistry In Civilization (LN)	
Any course designated (N)		3
Exploring Society & Human Behavior (S)		
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	3
or SPCH 2713	Introduction to Speech Communication (S)	
MGMT 3013	Fundamentals of Management (S) [1,3]	3
MKTG 3213	Marketing (S) [1,3]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Courses cannot be used here and as (N) course		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [8]	1
Select one course from two groups:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written Communications		
BCOM 3113	Written Communication [1,2,5,6]	3
or BCOM 3443	Business Communication for International Students	
Hours Subtotal		**10**
Major Requirements		
Agribusiness Core Courses		
AGEC 1101	Agricultural Economics and Agribusiness Experience [8]	1
AGEC 3101	Professional Career Development [8]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [8]	3
AGEC 3333	Agricultural Marketing and Price Analysis [8]	3
AGEC 3423	Farm and Agribusiness Management [8]	3
AGEC 3603	Agricultural Finance [8]	3
9 hours from AGEC 4000-level excluding AGEC 4990 [8]		9
ECON 3113	Intermediate Microeconomics [2,5,6,8]	3
or ECON 3023	Managerial Economics	
Accounting Required Courses		

Common Body [3]		
A GPA of 2.20 is required in the Common Body courses		
Select one of the following options:		3
ACCT 2003	Survey of Accounting [8]	
ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting [8]	
ACCT 3004	Foundational Accounting and Data Skills [8]	4
AGEC 1113	Introduction to Agricultural Economics (S) [4]	3
or ECON 2103	Introduction to Microeconomics (S)	
or ECON 2003	Microeconomic Principles for Business	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2203	Introduction to Macroeconomics [4,8]	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business [4,8]	3
or AGEC 3713	Agricultural Law	
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
School of Accounting Major Requirements		
ACCT 3001	Practicum in Professional Accounting I [5,6,7]	1
ACCT 3013	Federal Income Taxation [5,6,7]	3
ACCT 3104	Intermediate Accounting I and Data Analysis [5,6,7]	4
ACCT 3113	Intermediate Accounting II [5,6,7]	3
ACCT 3203	Cost Accounting [5,6,7]	3
ACCT 3603	Accounting Information Systems and Data Analytic Tools [5,6,7]	3
ACCT 4133	Advanced Accounting [5,6,7]	3
ACCT 4503	External Auditing [5,6,7]	3
ACCT 4553	Ethics for Public Accountants [5,6,7]	3
ACCT 4901	Advanced Accounting Tools and Technologies [5,6,7]	1
ACCT 4911	Practicum in Professional Accounting II [5,6,7]	1
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	3
MSIS 4123	Cybersecurity Systems Management [5,6]	3
Hours Subtotal		**94**
Electives		
(or hours to complete required total for degree)		
MATH 1483 or MATH 1513 may need to be taken as prerequisite to required Calculus course		
Hours Subtotal		**0**
Total Hours		**144**

1

College or departments requirements that meet GE requirements and cannot be waived with an Associate's degree

2

Nine hours School of Accounting core courses are used elsewhere.

3

MGMT 3013 and MKTG 3213 are common body requirements, but are counted in general education requirements

4

15 hours Agribusiness core courses included in Accounting Common Body

5

A grade of "C" or better must be earned in these courses

6

A GPA of 2.20 is required in these 39 hours. 18 of these 39 hours must be taken in residence at OSU

7

15 of 21 required 3000- and 4000-level accounting hours must be taken in residence at OSU

8

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Agricultural Communications Double Major, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 130

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,5]	
MATH 2123	Calculus for Technology Programs I (Q) [1,5]	
MATH 2144	Calculus I (Q) [1,5]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,5]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1,5]		
One course designated (N) [1,5]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Course cannot be used here and as an (N)		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
ANSI 1124	Introduction to the Animal Sciences	4
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
Oral Communications		
Select one of the following: [2]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**11**
Major Requirements		
Agribusiness Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003, (ACCT 2103 & ACCT 2203), or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)). [5]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [5]	1
AGEC 3101	Professional Career Development [5]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [5]	3
AGEC 3323	Agricultural Product Marketing and Sales	3
AGEC 3333	Agricultural Marketing and Price Analysis [5]	3
AGEC 3423	Farm and Agribusiness Management [5]	3
AGEC 3603	Agricultural Finance [5]	3
AGEC 3713	Agricultural Law [5]	3
AGEC 4343	International Agricultural Markets and Trade (G) [3]	3
AGEC 4503	Environmental Economics and Resource Development [3]	3
AGEC 4703	American Agricultural Policy [3]	3
ECON 2203	Introduction to Macroeconomics [5]	3
ECON 3113	Intermediate Microeconomics [5]	3
or ECON 3023	Managerial Economics	
Agricultural Communications Core Courses		
AGCM 2113	Introduction to Agricultural Communications	3
AGCM 3113	Writing and Editing for Agricultural Publications	3
AGCM 3123	Audio and Video Storytelling in Agricultural Communications	3
AGCM 3213	Layout and Design for Agricultural Publications	3

AGCM 3223	Digital and Online Media in Agricultural Communications	3
AGCM 3233	Basic Photography and Photo Editing for Agriculture	3
or AGCM 4233	Agricultural Photography Tour	
AGCM 3503	Issues Management and Crisis Communications in Agriculture and Natural Resources	3
AGCM 4113	Features Writing and Editing for Agricultural Publications	3
AGCM 4203	Professional Development in Agricultural Communications	3
AGCM 4300	Internships in Agricultural Communications (2 hours)	2
AGCM 4403	Planning Campaigns for Agriculture and Natural Resources	3
AGCM 4413	Agricultural Communications Capstone	3
Select 3 hours from the following:		3
FDSC 1133	Fundamentals of Food Science	
FDSC 2102	Regional Diversity in Food Production, Selection and Consumption (D)	
ANSI 2233	The Meat We Eat	
ANSI 2253	Meat Animal and Carcass Evaluation	
NSCI 2013	Principles of Human Nutrition (N)	
NSCI 3543	Food and the Human Environment (GS)	
Hours Subtotal		**79**
Electives		
or hours to complete required total for degree [4]		
Hours Subtotal		**0**
Total Hours		**130**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (S) course above, hours in this block reduced by 3.

3

AGEC 4503 Environmental Economics and Resource Development satisfies environmental science requirement and AGEC 4703 American Agricultural Policy satisfies policy requirement for the Agricultural Communications major. AGEC 4343 International Agricultural Markets and Trade (G) satisfies international dimension requirements. If another course is taken for these requirements, a different 4000-level AGEC course except AGEC 4990 Problems of Agricultural Economics may be taken. At least nine hours of 4000-level AGEC besides 4990 required for AGBU major.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

5

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- The student must earn a minimum grade of “C” in all AGCM courses.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Community and Regional Analysis, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1, 2]	3
or MATH 2123	Calculus for Technology Programs I (Q)	
or MATH 2144	Calculus I (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,2]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated L/N [1,2]		
One course designated (N) [1,2]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Course cannot be used here and as an (N)		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [2]	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written and Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [2]	3
or AGCM 3113	Writing and Editing for Agricultural Publications	
or BCOM 3113	Written Communication	
or BCOM 3443	Business Communication for International Students	
or ENGL 3323	Technical Writing	
If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3.		
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	3
or SPCH 2713	Introduction to Speech Communication (S)	
or SPCH 3733	Elements of Persuasion (S)	
If used as (S) course above, hours in this block reduced by 3.		
Hours Subtotal		**13**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113) [2]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [2]	1
AGEC 3101	Professional Career Development [2]	1

AGEC 3213	Quantitative Methods in Agricultural Economics [2]	3
AGEC 3333	Agricultural Marketing and Price Analysis [2]	3
AGEC 3423	Farm and Agribusiness Management [2]	3
AGEC 3603	Agricultural Finance [2]	3
AGEC 3713	Agricultural Law [2]	3
AGEC 4723	Rural Economics Development	3
6 additional hours from AGEC 4000-level excluding AGEC 4990 [2]		6
ECON 2203	Introduction to Macroeconomics [2]	3
ECON 3113	Intermediate Microeconomics [2]	3
or ECON 3023	Managerial Economics	
6 upper division hours from:		6
AGEC, ECON, MKTG 3213 or MGMT 3013		
Related Courses		
ECON 3423	Public Finance	3
9 hours from the following courses:		9
ECON 4643	International Economic Development (GS)	
ECON 4913	Urban and Regional Economics	
GEOG 3123	Urban Geography (S)	
GEOG 3163	Economic Geography (S)	
GEOG 3183	Transportation Geography	
GEOG 3333	Spatial Analysis (Q)	
GEOG 4123	Geographical Aspects of Urban Planning	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4153	Geography of Outdoor Recreation	
GEOG 4373	Geographic Information Systems in Public Health	
GEOG 4443	Sustainable Tourism and Geography	
POLS 2033	Introduction to Public Administration	
POLS 3493	Public Policy	
POLS 3613	State and Local Government	
POLS 4403	Urban Politics and Management	
POLS 4413	Government Budgeting	
SOC 3423	Urban Sociology	
SOC 4533	World Population Problems	
Hours Subtotal		**56**
Electives		
(or hours to complete required total for degree)		11
MATH 1483 or MATH 1513 may need to be taken as prerequisite to required Calculus course		
Hours Subtotal		**11**
Total Hours		**120**

1

College and Departmental requirements that meet General Education requirements

2

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above
- A 2.00 GPA or higher in upper-division hours

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Crop and Soil Sciences, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,6]	
MATH 2123	Calculus for Technology Programs I (Q) [1,6]	
MATH 2144	Calculus I (Q) [1,6]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,6]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated L/N [1,5]		
One course designated (N) [1,5]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,6]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [6]	1
SOIL 2124	Fundamentals of Soil Science (N) [2]	4
PLNT 1213	Introduction to Plant and Soil Systems (N) [2]	3
or HORT 1013	Principles of Horticultural Science (LN)	
or NREM 1113	Elements of Forestry	
Written & Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [3,6]	3
or AGCM 3113	Writing and Editing for Agricultural Publications	
or BCOM 3113	Written Communication	
or BCOM 3443	Business Communication for International Students	
or ENGL 3323	Technical Writing	
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4,6]	3
or SPCH 2713	Introduction to Speech Communication (S)	
or SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**14**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both (ACCT 2103 and ACCT 2003), (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)). [6]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [6]	1
AGEC 3101	Professional Career Development [6]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [6]	3
AGEC 3323	Agricultural Product Marketing and Sales	3
AGEC 3333	Agricultural Marketing and Price Analysis [6]	3
AGEC 3423	Farm and Agribusiness Management [6]	3
AGEC 3503	Natural Resource Economics	3
AGEC 3603	Agricultural Finance [6]	3
AGEC 3713	Agricultural Law [6]	3
AGEC 4403	Advanced Farm and Ranch Management	3
Select 6 hours from AGEC 4000 level excluding AGEC 4990 [6]		6
ECON 2203	Introduction to Macroeconomics [6]	3
ECON 3113	Intermediate Microeconomics [6]	3
or ECON 3023	Managerial Economics	
Minor Areas		
Select at least one of the following minors:		22

Agronomy	
Entomology	
Forestry	
Horticulture	
Natural Resource Ecology and Management	
Pest Management	
Rangeland Ecology & Management	
Soil Science	
Take additional hours from courses in any other minor areas or MATH 1483 or MATH 1513 to complete the required total of 22 hours	
Hours Subtotal	**66**
Electives	
0 hours to complete required total for degree [5]	
Hours Subtotal	**0**
Total Hours	**120**

[1]

College & Departmental requirements that may be used to meet General Education requirements.

[2]

Depending upon minor chosen.

[3]

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

[4]

If used as (S) course above, hours in this block reduced by 3.

[5]

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

[6]

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Farm and Ranch Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,5]	
MATH 2123	Calculus for Technology Programs I (Q) [1,5]	
MATH 2144	Calculus I (Q) [1,5]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,5]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1,5]		
One course designated (N) [1,5]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
From two of the following groups, select one course:		6
Group 1		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
AGCM 3113	Writing and Editing for Agricultural Publications [5]	
BCOM 3113	Written Communication [5]	
BCOM 3443	Business Communication for International Students [5]	
ENGL 3323	Technical Writing [2,5]	
Select one of the following: [3]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		

6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 &(Acct 3003 or ACCT 3004 or FIN 3113)) [5]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [5]	1
AGEC 3101	Professional Career Development [5]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [5]	3
AGEC 3333	Agricultural Marketing and Price Analysis [5]	3
AGEC 3423	Farm and Agribusiness Management [5]	3
AGEC 3603	Agricultural Finance [5]	3
AGEC 3713	Agricultural Law [5]	3
AGEC 4403	Advanced Farm and Ranch Management	3
6 additional hours from AGEC 4000 excluding AGEC 4990 [5]		6
ECON 2203	Introduction to Macroeconomics [5]	3
ECON 3113	Intermediate Microeconomics [5]	3
or ECON 3023	Managerial Economics	
Select 6 upper division hours of the following:		6
AGEC, ECON, MKTG 3213 or MGMT 3013		
Related Courses		
15 hours from the following course prefixes that are not used elsewhere with at least 9 of the 15 hours upper division:		15
ANSI, AST, ENTO, HORT, NREM, PLNT, PLP, SOIL		
Hours Subtotal		**59**
Electives		
8 hours or hours to complete required total for degree [4]		8
Hours Subtotal		**8**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3

3

If used as (S) course above, hours in this block reduced by 3.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course

5

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: International, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,7]	
MATH 2123	Calculus for Technology Programs I (Q) [1,7]	
MATH 2144	Calculus I (Q) [1,7]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,7]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1,7]		
One course designated (N) [1,7]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,7]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [7]	1
From two of the following groups, select one course:		6
Group 1		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [7]	
AGCM 3113	Writing and Editing for Agricultural Publications [7]	
BCOM 3113	Written Communication [7]	
BCOM 3443	Business Communication for International Students [7]	
ENGL 3323	Technical Writing [2,7]	
Select one of the following: [3]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [7]	
SPCH 2713	Introduction to Speech Communication (S) [7]	
SPCH 3733	Elements of Persuasion (S) [7]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)) [7]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [7]	1
AGEC 3101	Professional Career Development [7]	1

AGEC 3213	Quantitative Methods in Agricultural Economics [7]	3
AGEC 3333	Agricultural Marketing and Price Analysis [7]	3
AGEC 3423	Farm and Agribusiness Management [7]	3
AGEC 3603	Agricultural Finance [7]	3
AGEC 3713	Agricultural Law [7]	3
AGEC 3803	International Agricultural Economics Tour (G)	3
AGEC 4343	International Agricultural Markets and Trade (G)	3
Select 6 hours from AGEC 4000 level excluding AGEC 4990 [7]		6
ECON 2203	Introduction to Macroeconomics [7]	3
ECON 3113	Intermediate Microeconomics [7]	3
or ECON 3023	Managerial Economics	
6 upper division hours from:		6
AGEC, ECON, MKTG 3213 or MGMT 3013		
International Related Courses		
Select 12 hours from courses in same foreign language [5]		12
Select 6 additional hours from courses in above foreign language or upper-division courses designated (I)		6
Hours Subtotal		**65**
Electives		
2 hours or more to complete required total for degree [6]		2
Hours Subtotal		**2**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block reduced by 3.

4

An international student may substitute 3 hours of AGEC 3810 Domestic Agricultural Economics Tour for AGEC 3803 International Agricultural Economics Tour (G).

5

A native speaker of a foreign language may substitute 18 hours towards one or more minors for the 18 hours in the same foreign language or upper-division courses designated (I).

6

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

7

Hours meeting the Major core.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Natural Resources, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1,4]	3
or MATH 2123	Calculus for Technology Programs I (Q)	
or MATH 2144	Calculus I (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,4]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1,4]		
One course designated (N) [1,4]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,4]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Course cannot be used here and as (N) course		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [4]	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written and Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [2,4]	3
or AGCM 3113	Writing and Editing for Agricultural Publications	
or BCOM 3113	Written Communication	
or BCOM 3443	Business Communication for International Students	
or ENGL 3323	Technical Writing	
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3,4]	3
or SPCH 2713	Introduction to Speech Communication (S)	
or SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)) [4]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [4]	1
AGEC 3101	Professional Career Development [4]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [4]	3
AGEC 3333	Agricultural Marketing and Price Analysis [4]	3
AGEC 3423	Farm and Agribusiness Management [4]	3

AGEC 3503	Natural Resource Economics	3
AGEC 3603	Agricultural Finance [4]	3
AGEC 3713	Agricultural Law [4]	3
AGEC 4503	Environmental Economics and Resource Development	3
6 additional hours from AGEC 4000-level excluding AGEC 4990 [4]		6
ECON 2203	Introduction to Macroeconomics [4]	3
ECON 3113	Intermediate Microeconomics [4]	3
or ECON 3023	Managerial Economics	
3 upper division hours from:		3
AGEC, ECON, MKTG 3213 or MGMT 3013		
Related Courses:		
GEOG 4203	Fundamentals of Geographic Information Systems	3
9 hours from the following courses:		9
AST 4112	Land Measurement and Site Analysis	
AST 4203	Agricultural Water Management	
ECON 3903	Economics of the Environment	
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
ENVR 4112	Land Measurement and Site Analysis	
ENVR 4363	Environmental Soil Science	
GEOG 3023	Climatology (N)	
GEOG 3033	Meteorology (N)	
GEOG 3063	Economic Meteorology	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 3163	Economic Geography (S)	
GEOG 4053	Biogeography, Biodiversity, and Humankind	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOG 4083	Grasslands and Savannas: Evolution and Environmental Issues	
GEOG 4153	Geography of Outdoor Recreation	
GEOG 4163	Resource Management in the National Parks	
GEOG 4323	Mapping in Modern Society	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	
GEOL 1014	Geology and Human Affairs (LN)	
GEOL 2013	Geology of the National Parks (N)	
GEOL 3503	Environmental Geology (N)	
NREM any upper-division		
PLNT 4033	Applied Agricultural Meteorology	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
RM 4473	Recreation in the Natural Environment	
RM 4553	Tourism in Recreation Settings	
SOC 4433	Environmental Sociology (S)	
SOIL 4363	Environmental Soil Science	
SOIL 4463	Soil and Water Conservation	
SOIL 4683	Soil, Water, and Weather	
SOIL 4893	Environmental Soil Chemistry	
Hours Subtotal		**56**
Electives		**11**
(or hours to complete required total for degree)		
MATH 1483 or MATH 1513 may need to be taken as prerequisite to required Calculus course		
Hours Subtotal		**11**
Total Hours		**120**

1

College and Departmental requirements that meet General Education requirements

2

If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3

3

If used as (S) course above, hours in this block reduced by 3

4

Hours meeting the Major core.

Other Requirements:

- Exit interview with Head of Department of Agricultural Economics
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above
- A 2.00 GPA or higher in upper-division hours

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Pre-Law, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,5]	
MATH 2123	Calculus for Technology Programs I (Q) [1,5]	
MATH 2144	Calculus I (Q) [1,5]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,5]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1,5]		
One course designated (N) [1,5]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
AGCM 3113	Writing and Editing for Agricultural Publications [5]	
BCOM 3113	Written Communication [5]	
BCOM 3443	Business Communication for International Students [5]	
ENGL 3323	Technical Writing [2,5]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3,5]	
SPCH 2713	Introduction to Speech Communication (S) [3,5]	
SPCH 3733	Elements of Persuasion (S) [3,5]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113)) [5]		6
AGEC 1101	Agricultural Economics and Agribusiness Experience [5]	1
AGEC 3101	Professional Career Development [5]	1

AGEC 3213	Quantitative Methods in Agricultural Economics [5]	3
AGEC 3333	Agricultural Marketing and Price Analysis [5]	3
AGEC 3423	Farm and Agribusiness Management [5]	3
AGEC 3603	Agricultural Finance [5]	3
AGEC 3713	Agricultural Law [5]	3
Select 9 hours of AGEC 4000 level excluding AGEC 4990 [5]		9
ECON 2203	Introduction to Macroeconomics [5]	3
ECON 3113	Intermediate Microeconomics [5]	3
or ECON 3023	Managerial Economics	
Related Courses		
Select Alternative A, B or C (p. 2513)		21
Hours Subtotal		**59**
Electives		
8 hours or hours to complete required total for degree [4]		8
Hours Subtotal		
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block reduced by 3.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course. PHIL 1313 Logic and Critical Thinking (Q) is recommended.

5

Hours meeting the Major core.

Alternatives

Alternative A

Select 6 upper-division hours from AGEC, ECON, MKTG 3213, or MGMT 3013

Select 15 additional hours with 12 hours upper-division from: ACCT, AGEC, ECON, FIN, LSB, MGMT, MKTG, MSIS, POLS or a minor

Alternative B

Select 3 upper-division hours from AGEC, ECON, MKTG 3213, or MGMT 3013

Select 18 additional hours to complete Law and Legal Studies Minor:

Code	Title	Hours
Minor Requirements		
POLS 2023	The Individual And The Law	3
or HONR 2013	Honors Law and Legal Institutions (S)	
POLS 3983	Courts and Judicial Process (S)	3
POLS 3993	Legal Research And Analysis	3
Select 9 hours of the following:		9
AGEC 3713	Agricultural Law	
ENGR 4103	Impact of Law on Engineering Practice	
ENGR 4133	Environmental Regulation for Technical Professionals (S)	
LSB 3213	Legal and Regulatory Environment of Business	
PHIL 3843	Philosophy of Law (H)	
POLS 3033	International Law	
POLS 3963	State Courts and the Bar	
POLS 4353	Administrative Law	
POLS 4363	Environmental Law And Policy	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
POLS 4980	Advanced Topics in Public Law	
PSYC 4143	Psychology and Law	
SOC 4313	Sociology of Law	
Total Hours		**18**

Alternative C

With approval of Advisor and Department Head a maximum of 29 hours from an accredited doctoral law program may be used as related courses and electives.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Agribusiness: Pre-Veterinary Business Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q) [1,5]	
MATH 2123	Calculus for Technology Programs I (Q) [1,5]	
MATH 2144	Calculus I (Q) [1,5]	
STAT 2023	Elementary Statistics for Business and Economics (Q) (or equivalent STAT course designated "Q") [1,5]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (DH)		3
Course designated (GH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN)	5
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1,5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
From two of the following groups, select one course: [2]		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
AGCM 3113	Writing and Editing for Agricultural Publications [5]	
BCOM 3113	Written Communication [5]	
BCOM 3443	Business Communication for International Students [5]	
ENGL 3323	Technical Writing [3,5]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
Select one of the following options:		3
ACCT 2003	Survey of Accounting [5]	

ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting [5]	
AGEC 1101	Agricultural Economics and Agribusiness Experience [5]	1
AGEC 3101	Professional Career Development [5]	1
AGEC 3213	Quantitative Methods in Agricultural Economics [5]	3
AGEC 3333	Agricultural Marketing and Price Analysis [5]	3
AGEC 3423	Farm and Agribusiness Management [5]	3
AGEC 3603	Agricultural Finance [5]	3
AGEC 3713	Agricultural Law [5]	3
ANSI 3423	Animal Genetics	3
or BIOL 3023	General Genetics	
or PLNT 3554	Plant Genetics and Biotechnology	
ANSI 3543	Principles of Animal Nutrition	3
BIOC 3653	Survey of Biochemistry	3
Select 5 hours of upper division organic chemistry:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
or		
CHEM 3053 & CHEM 3153 & CHEM 3112	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Laboratory	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
BIOL 1604	Animal Biology	4
or BIOL 3204	Physiology	
or ANSI 3414	Form and Function of Livestock and Poultry	
Alternatives		
Choose one of two alternatives (p. 2516)		16
Hours Subtotal		**67**
Electives		
0 hours to complete required total for degree [4]		
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

Course cannot be used here and as an (N).

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

5

Hours meeting the Major core.

Alternatives

I. First Year of Professional Program

With the approval of the advisor, department head, and dean the student may use hours from an accredited dental, medical, optometry, osteopathic, pharmacy, podiatry, or veterinary medical school to complete degree

II. Without First Year of Professional Program

Code	Title	Hours
AGEC 4403	Advanced Farm and Ranch Management	3
or AGEC 4423	Advanced Agribusiness Management	
ECON 2203	Introduction to Macroeconomics [5]	3
Select one of the following:		3
ECON 3113	Intermediate Microeconomics [5]	
or ECON 3023	Managerial Economics	
6 additional hours from AGEC 4000-level excluding AGEC 4990 [5]		6
1 additional hour		1

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Economics and Agribusiness (AEAB), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 21

Code	Title	Hours
Minor Requirements		
AGEC 1113	Introduction to Agricultural Economics (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
ACCT 2103	Financial Accounting [1]	3
or ACCT 2003	Survey of Accounting	
Select 15 hours in five upper-division (3 hour) AGEC courses [2]		15
Total Hours		**21**

1

AGEC 3183 Agribusiness Accounting and Taxation may be substituted for ACCT 2103 Financial Accounting

2

Excluding AGEC 3010 Internship in Agricultural Economics, AGEC 3101 Professional Career Development, AGEC 3183 Agribusiness Accounting and Taxation, AGEC 3810, AGEC 3990 Special Problems in Agricultural Economics, AGEC 4101 Agricultural Economics Seminar, AGEC 4990 Problems of Agricultural Economics

Other Requirements

- At least nine hours of upper division AGEC courses must be taken at OSU.
- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Agricultural Economics, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Course designated (H)		3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Six hours from:		6
One course in CHEM or other course designated (L/N) [1]		
One course in CHEM or other course designated (L/N) [1]		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		6
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written & Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following: [3]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
6 credit hours of ACCT classes covering Financial and Managerial Accounting. Students cannot use a combination of both ACCT 2103 and ACCT 2003. (ACCT 2103 & ACCT 2203) or (ACCT 2003 & (ACCT 3003 or ACCT 3004 or FIN 3113))		6
AGEC 1101	Agricultural Economics and Agribusiness Experience	1
AGEC 3101	Professional Career Development	1
AGEC 3213	Quantitative Methods in Agricultural Economics	3
AGEC 3333	Agricultural Marketing and Price Analysis	3
AGEC 3423	Farm and Agribusiness Management	3
AGEC 3603	Agricultural Finance	3
AGEC 3713	Agricultural Law	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3

MATH 2153	Calculus II (Q)	3
MATH 3013	Linear Algebra (Q)	3
STAT 4013	Statistical Methods I (Q)	3
STAT 4043	Applied Regression Analysis	3
or ECON 4223	Business and Economic Forecasting	
15 additional hours from upper-division AGEC with at least 12 hours 4000-level except AGEC 4990		15
Related Courses		
Hours Subtotal		**59**
Electives		
Select 8 hours or hours to complete required total for degree [4]		8
Hours Subtotal		**8**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as an additional (S) course above, hours in this block reduced by 3.

4

MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1513 College Algebra (Q) may need to be taken as prerequisite to required Calculus course.

Other Requirements

- Exit interview with Head of Department of Agricultural Economics.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Real Estate Appraisal (AREA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 24

Code	Title	Hours
Minor Requirements		
Select from one of the following pairs of courses:		6
ACCT 2103	Financial Accounting	
ACCT 2203	Managerial Accounting	
OR		
ACCT 2003	Survey of Accounting	
ACCT 3003	Foundational Accounting Skills	
or ACCT 3004	Foundational Accounting and Data Skills	
AGEC 3213	Quantitative Methods in Agricultural Economics	3
AGEC 3423	Farm and Agribusiness Management	3
AGEC 3603	Agricultural Finance	3
AGEC 3713	Agricultural Law	3
AGEC 4513	Farm Appraisal	3
STAT 2023	Elementary Statistics for Business and Economics (A)	3
Total Hours		**24**

Other Requirements

- At least nine hours of the AGEC courses must be taken at OSU.
- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Environmental Economics, Politics and Policy (EEPP), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 21

Code	Title	Hours
Minor Requirements		
AGEC 1113	Introduction to Agricultural Economics (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
AGEC 3503	Natural Resource Economics	3
or ECON 3903	Economics of the Environment	
AGEC 4503	Environmental Economics and Resource Development	3
Select at least 12 hours of the following:		12
AGEC 3703	Issues in Agricultural Policy	
AGEC 3713	Agricultural Law	
AGEC 4703	American Agricultural Policy	
ECON 3113	Intermediate Microeconomics	
ENVR 4512	Introduction to National Environmental Policy Act	
ENVR 4573	Ethical Issues in Agriculture and the Environment	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 4233	Human Dimensions of Global Environmental Change	
HIST 4523	American Environmental History (H)	
NREM 4053	Natural Resource Recreation	
or RM 4473	Recreation in the Natural Environment	
NREM 4093	Natural Resources, People and Sustainable Development (I)	
POLS 3493	Public Policy	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4433	Environmental Sociology (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4533	World Population Problems	
Total Hours		**21**

Other Requirements

- At least nine upper-division hours must be taken at OSU.
- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Agricultural Education

The programs of study offered in Agricultural Education are designed to provide both comprehensive and specialized training to prepare graduates for careers in a wide range of fields of agriculture. In addition to being prepared for licensure as teachers, graduates are professionally prepared for work in cooperative extension and other federal and state programs and services, as well as international education endeavors. Graduates also may find employment as educational directors and consultants with agribusiness firms and organizations. Studies may culminate in the BS, MAg, MS, or PhD degrees.

The Bachelor's degree in Agricultural Education (AGED) is designed to qualify recipients for the Oklahoma School Certificate. The program is accredited by the Council for the Accreditation of Educator Preparation (CAEP). This certificate is recognized as meeting requirements for initial employment as a teacher in most states. Graduates look forward to careers ranging from agricultural education teacher and cooperative extension educator to agricultural sales, marketing, and production positions. The undergraduate Agricultural Education major is structured to provide educational experiences in general education, agriculture, and professional education.

Courses

AGED 2011 Topics and Issues in Agricultural Education
Description: An exploration into the world of teaching secondary agricultural education with a focus on the role and purpose of the comprehensive agricultural education program. Observation of teachers in an experiential manner by actively interviewing agricultural education teachers, school principals, and appropriate state staff; assisting with FFA activities; and observing students' SAE opportunities.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3101 Laboratory and Clinical Experiences in Agricultural Education
Description: Preprofessional clinical experiences in agricultural education teaching and related careers. Requirement for admission to professional education, student teaching, and internships. Previously offered as AGED 3510.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3103 Foundations and Philosophies of Teaching Agricultural Education
Prerequisites: 21 semester credit hours of agriculture with a 2.50 GPA.
Description: Roles and responsibilities of the agricultural education teacher; types of program offerings; steps of the teaching-learning process; place of agricultural education in relation to other educational programs in school systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 3201 Planning and Conducting Agricultural Youth Organization Events
Description: A service-learning course focused on the processes and procedures required to host competitive events for agricultural youth organizations. Emphasis on roles of event hosts such as planning, coordination, volunteer management, and facilitation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 3203 Advising Agricultural Student Organizations and Supervising Experiential Learning
Prerequisites: AGED 3103.
Description: Determining resources and trends of local communities with respect to agricultural production and agribusiness. Emphasis on agricultural education program policies, FFA chapter advisement, planning and managing the instructional program, identification and completion of records and reports required of a teacher of agricultural education in Oklahoma. May not be used for degree credit with AGED 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4103 Methods of Teaching Agricultural Education
Prerequisites: AGED 3101 and AGED 3203.
Description: Facets of the teaching and learning process including teaching methods, basic teaching skills, proper classroom management techniques, and motivational techniques and ideas. Preparation for student teaching.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4113 Inquiry Based Instruction in Agricultural Education
Prerequisites: AGED 3103
Description: Inquiry-based instruction in agricultural education to prepare future school-based agricultural education teachers to teach inquiry-based science, technology, engineering, and math (STEM) curriculum.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 4200 Student Teaching in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202; Concurrent enrollment in AGED 4113; full admission to the University Professional Education program.
Description: Full-time directed experience in an approved agricultural education department. Applications of methods and skills in agricultural education as related to selecting, adapting, utilizing, and evaluating curriculum materials and experiences to meet educational goals and facilitate learning for individual students. Roles, responsibilities, and organization and operation of school systems. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 4203 Professional Development in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202.
Description: Professional preparation and development for careers as agricultural educators. Professional correspondences, interviewing, networking, and other employability skills. Reflection and evaluation of instruction, project supervision and advising of youth leadership development organizations. May not be used for degree credit with AGED 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 4300 Agricultural Education Internship
Prerequisites: Consent of instructor.
Description: Supervised internship experience with approved enterprises in agriculture, natural resources, and/or youth development. Regular written reports and final presentation required. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 4713 International Programs in Agricultural Education and Extension (G)
Description: World hunger and its root causes. The function of international agencies, organizations, foundation and churches in improving the quality of life for people of the developing nations. Roles of agricultural education and extension at all levels for enhancing the effectiveness of indigenous programs of rural development and adult education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: International Dimension

AGED 4990 Seminar and Problems in Agricultural Education
Description: Small group and/or individual study and research in problems relating to programs of occupational education in agriculture. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5102 Creative Component in Agricultural Education
Prerequisites: AGED 5983 or equivalent; consent of instructor.
Description: Independent research or project management under the direction and supervision of a major adviser.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5123 Adult Programs in Agricultural and Extension Education
Description: Determining adult needs, priorities, participation in educational activities, and adoption of new ideas and practices. Designing, organizing, conducting, and evaluating adult education programs in agricultural and extension education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5203 Grant Seeking
Prerequisites: Graduate standing or consent of instructor.
Description: External funding proposal development for foundation and government agencies. Conceptualizing projects, identifying funding sources, and develop proposals that follow RFP guidelines including a literature review, need for the project, approach, timeline and budget. Previously offered as AGED 5202.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5300 Extension Tchg Meth
Credit hours: 1-24
Contact hours: Lecture: 1-24 Contact: 1-24
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5311 Laboratory and Clinical Experiences in Agricultural Education for Graduate Students
Prerequisites: Graduate Standing.
Description: Preprofessional clinical experiences in agricultural education teaching and related careers. Study of research literature related to school-based agricultural education. Requirement for admission to professional education and student teaching. For graduate students pursuing teacher certification.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5313 Foundations and Philosophies of Teaching Agricultural Education for Graduate Students
Prerequisites: Graduate Standing.
Description: Study of educational philosophers impacting school-based agricultural education, roles and responsibilities of the agricultural education teacher, types of program offerings, steps of the teacher-learning process, and the place of agricultural education in relation to other educational programs in school systems. For graduate students pursuing teacher certification. Same course as AGED 3013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5323 Advising Agricultural Student Organizations & Supervising Experimental Learning for Graduate Student
Prerequisites: Graduate Standing.
Description: Determining resources and trends of local communities with respect to agricultural production and agribusiness. Emphasis on agricultural education program policies, FFA chapter advisement, and supervision of experiential learning projects. Development of project for teaching agriculture. For graduate students pursuing teacher certification. Same course as AGED 3203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5333 Methods of Teaching Agricultural Education for Graduate Students
Prerequisites: Graduate standing.
Description: Facets of the teaching and learning process with an emphasis on the identification and integration of teaching methods in the school-based agricultural education curriculum. Preparation for the student teaching internship. For graduate students pursuing teacher certification. Includes exploration and application of research about teaching school-based agricultural education. Previously offered as AGED 5103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Ag Ed, Comm & Leadership

AGED 5343 Professional Development in Agricultural Education
Prerequisites: AGED 4103; EPSY 3213 or EPSY 3413; SPED 3202.
Description: Professional preparation and development for careers as agricultural educators. Professional correspondences, interviewing, networking, and other employability skills. Reflection and evaluation of instruction, project supervision and advising of youth leadership development organizations. May not be used for degree credit with AGED 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5500 Directing Programs of Supervised Experience
Prerequisites: Consent of instructor.
Description: Determining the supervised training needs and opportunities of individual students. Planning for supervision of agricultural education training programs and 4-H club projects. Analysis of training opportunities in production agriculture, agricultural businesses and individual career development. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5623 Volunteer Management in Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: Concepts, theories and practices relevant to the management of volunteers with an emphasis on recruiting, managing, and training in formal or non-formal educational settings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5703 Cultural Competency for Working in Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: Examination of strategies to increase intercultural intelligence, and cultural competence. Focus on concepts of cultural values and stereotypes, intercultural sensitivity, cultural differences, cultural transitions, and intercultural theories for agricultural and extension educators.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5813 College Teaching of Agriculture and Natural Resources
Prerequisites: Consent of instructor.
Description: Facets of the teaching-learning process used to teach agriculture and natural resources in higher education including teaching methods, instructional skills, application of instructional technology, student motivation, and evaluation of learning. Previously offered as AGED 6120.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5823 Advanced Methods of Teaching Agriculture
Description: Advanced concepts and methods relevant for both formal and informal presentations. Effects methods may have on individuals involved in the learning experience. Demonstrations of proficiency in use of various advanced methodologies, technologies and concepts.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 5900 Graduate Internship in Agriculture
Prerequisites: Admission to Master of Agriculture program; consent of graduate coordinator.
Description: Supervised internship in agricultural education, government agency, industry, Cooperative Extension, or not-for-profit organizations. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 5990 Problems in Agricultural and Extension Education
Description: Securing and analyzing data related to special problems or investigation in designated areas of agricultural education. Offered for variable credit, 1-3 credit hours, maximum of 8 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGED 6103 History and Philosophical Foundations of Agricultural and Extension Education
Prerequisites: Graduate standing.
Description: History and philosophical foundations of agricultural and extension education. Philosophy and its role in life, rise of education in America, philosophical foundations of education in America, legislation having an impact on agricultural and extension education, education in agriculture and current issues in agricultural extension education. Previously offered as AGED 5820.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGED 6983 Qualitative Research Methods in Agricultural Education
Prerequisites: Graduate standing, AGED 5983 or other graduate level social science research methods course.
Description: A comprehensive examination of qualitative research methods including identifying a problem, data collection, interpretative analysis, ensuring trustworthiness, theory construction and reporting. Previously offered as AGED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

Undergraduate Programs

- Agricultural Education: Multidisciplinary, BSAG (p. 2527)

Graduate Programs

Graduate programs in Agricultural Education are designed to:

1. Prepare students for entry into or advancement in teaching careers, and
2. Provide for further development of professional leadership skills for other educational careers in agriculture, agribusiness, government service, extension, or adult education.

To meet the needs of both international and domestic students, plans of study are developed for academic excellence specific to students' career goals. The selection and organization of courses are made in consultation with the advisor and the student's advisory committee.

The Master of Agriculture (MAg) degree in Agricultural Education and Leadership (AGEL) is an advanced studies program for practitioners seeking to develop their knowledge related to education, leadership, and their applications to the agricultural industry. Graduates pursue careers in teaching, school administration, Extension, government, corporate agriculture, and human resources and training. The Master of Agriculture program requires 32 approved semester hours of coursework including a 17-hour area of emphasis.

The Master of Science degree in AGEL offers students two options for completion of the degree: thesis option or formal report option. The thesis option requires 30 approved credit hours of coursework that includes a six-credit hour formal thesis following the graduate college format. The formal report option requires 32 approved semester credit hours of coursework, including a two-credit hour formal report.

The Doctor of Philosophy program in Agricultural Education, Communications and Leadership (AECL) is designed to prepare graduates for careers in professional education, supervision, administration, curriculum development and other areas of professional leadership in agriculture, agricultural Extension, career and technology, and agricultural communications. Within the minimum 60-credit hour requirement, 15 credit hours must be completed in the core area. In addition, 15 credit hours must be completed in an area of specialization such as agricultural Extension, technical agriculture, educational administration, or other similar areas. The additional hours include 15 hours of research design and statistics and 15 hours for the dissertation.

Admission Requirements

Students seeking admission to the master's degree programs must have earned a bachelor's degree in agricultural education or a closely related field. A student with background deficiencies must compensate for such deficiencies before completing the Master of Science degree. Evidence of academic ability (3.00 GPA or above) in undergraduate coursework is required. Two letters of reference and a statement of purpose are also required. Graduate Record Exam (GRE) scores are required for students seeking admission to the Master of Science degree program.

Admission to the doctoral degree program is based upon evidence the applicant meets the general requirements of the Graduate College, has demonstrated superior achievement, and can successfully complete a doctoral program as evidenced by two letters of recommendation, GRE scores, a minimum of 2.80 undergraduate grade-point average and 3.00 graduate grade-point average, and a philosophy statement and goals. Students interested in specializing in agricultural education must have three years of successful professional experience. Alternative criteria may be considered by the graduate committee for those who submit ample supportive evidence of other exemplary qualifications.

Faculty

J. Shane Robinson, PhD—Professor and Head
Professors: D. Dwayne Cartmell, PhD; M. Craig Edwards, PhD; Shelly R. Legg, PhD; Jon W. Ramsey, PhD; Robert Terry, Jr., PhD
Associate Professor: Christopher J. Eck, PhD; Angel Riggs, PhD; Quisto Settle, PhD
Assistant Professors: Courtney Brown, PhD; Lauren Cline, PhD; Bradley Coleman, PhD; Audrey King, PhD

Lecturers: Kenna Sandburg, MS; Nathan Smith, PhD; Kaylee Travis, MS

Agricultural Education: Multidisciplinary, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH (Q) or STAT (Q) [1]		3
(Suggested: MATH 1483 or MATH 1513)		
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
CHEM 1215	Chemical Principles I (LN)	5
or CHEM 1314	Chemistry I (LN)	
Any course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [2]	3
SPCH 2713	Introduction to Speech Communication (S) [2]	3
or AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
Diversity (D)		
Any course designated (D)		3
Global Cultural Competency (G)		
Any course designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, additional general education will be required to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F) [3]		0
Hours Subtotal		**40**
Diversity (D) & International Dimension (I)		
May be completed in any part of the degree plan		
Select at least one Diversity (D) course (included in Major Requirements)		
Select at least one International Dimension (I) course (included in Major Requirements)		
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AECL 1101	Orientation to Agricultural Education, Communications and Leadership	1
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	4
or ANSI 1124	Introduction to the Animal Sciences	
Select one of the following:		3
FDSC 1133	Fundamentals of Food Science	
FDSC 2233	The Meat We Eat	
FDSC 2253	Meat Animal and Carcass Evaluation	
HORT 1013	Principles of Horticultural Science (LN)	3
AST 3011	Ag Structures	1
AST 3211	Engines and Power	1
AST 3222	Metals and Welding	2
AST 4101	Ag Electrification	1
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
SOIL 2124	Fundamentals of Soil Science (N)	4
Biological Sciences		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [4]	
BIOL 1114	Introductory Biology (LN) [4]	
Written & Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	3
or ENGL 3323	Technical Writing	
Hours Subtotal		**31**
Major Requirements		
Enrichment Courses		
To include courses from four of the following areas:		12
Agricultural Communications, Agricultural Economics, Agricultural Education, Agricultural Leadership, Agricultural Systems Technology, Animal Science, Biochemistry, Entomology, Environmental Science, Food Science, Forestry, Horticulture, Natural Resource Ecology and Management, Plant Pathology, Plant Science, and Soil Science		
International Agriculture		
Select one of the following:		3
AGED 4713	International Programs in Agricultural Education and Extension (G)	
AGLE 3803	Global Leadership in Agriculture (G)	
ANSI 3903	Agricultural Animals of the World (G)	
AECL 4800	International Study Tour in Agricultural Education, Communications and Leadership (G)	

Professional Core		
AGED 3101	Laboratory and Clinical Experiences in Agricultural Education	1
AGED 3103	Foundations and Philosophies of Teaching Agricultural Education	3
AGED 3203	Advising Agricultural Student Organizations and Supervising Experiential Learning	3
AGED 4103	Methods of Teaching Agricultural Education	3
AGED 4113	Inquiry Based Instruction in Agricultural Education	3
AGED 4203	Professional Development in Agricultural Education [5]	3
CIED 4133	Introduction to K-12 English Language Learners	3
AGED 4200	Student Teaching in Agricultural Education [5]	9
EPSY 3213	Psychology of Adolescence	3
or EPSY 3413	Child and Adolescent Development	
SPED 3202	Educating Exceptional Learners	2
Hours Subtotal		**48**
Electives		
1 hour or hours to complete required total for degree [6]		1
Hours Subtotal		**1**
Total Hours		**120**

1

Suggested: MATH 1483 Mathematical Functions and Their Uses (Q) or MATH 1493 Applications of Modern Mathematics (Q) or MATH 1513 College Algebra (Q)

2

College & Departmental requirements that may be used to meet General Education requirements.

3

Suggested: STAT 2013 Elementary Statistics (Q); PSYC 1113 Introductory Psychology (S)

4

If used as (N) course above, hours in this block reduced by 4.

5

AGED 4203 Professional Development in Agricultural Education & AGED 4200 Student Teaching in Agricultural Education are taken during student teaching semester.

6

These hours may be applied to the foreign language proficiency requirement per teacher certification (see below)

Required for Graduation and Recommendation for Licensure/Standard Certification

1. 2.50 overall GPA;
2. 2.50 GPA in Major Requirements; and
3. 2.50 GPA in Professional Requirements.

The student must earn minimum grades of "C" in each course in the College/Departmental Requirements, Major Requirements, and Professional Core Requirements.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Leadership

The Agricultural Leadership curriculum is guided by five core values: commitment to agriculture, authentic leadership, diversity, critical thinking, and professionalism. Agricultural Leadership faculty align course objectives, learning opportunities and student experiences with the five core values. Beginning students study historical and theoretical foundations in leadership, authentic leadership, and transformational leadership before exploring contemporary leadership issues, leadership program facilitation and current scholarship in the discipline. Specific topics within coursework include leadership styles, power, decision-making, ethical leadership, motivational theories, and team processes.

In addition to leadership coursework, the curriculum provides a broad introduction to the agricultural sciences and natural resources and allows students to develop an area of emphasis or pursue a minor in areas such as Animal Science, Soil Science or Agricultural Economics.

Minor in Leadership Education

The minor is designed to prepare students to serve as leaders in the context of their chosen major. Students develop an understanding of their leadership style and philosophy, acquire knowledge about leadership theories, explore contemporary issues in leadership, evaluate current leadership research and learn to design and facilitate leadership training. Requirements of the minor include 15 hours of leadership coursework.

Courses

AGLE 1511 Introduction to Leadership in Agricultural Sciences and Natural Resources
Description: Introduction to the concept of leadership as a field of study. Emphasis placed on the application of acquired knowledge to practical problems. Previously offered as AGED 1511.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 2303 Agricultural Leaders in Society (S)
Description: Analysis of agricultural leaders and societal impacts. Theories of authentic leadership and values-based leadership. Organizational, community, and workforce changes including diversity, technology, and globalization and the relationship to leader behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Society & Human Behavior

AGLE 2403 Agricultural Leadership in a Multicultural Society (DS)
Description: The study of leadership as it relates to a multicultural society. Cultural changes in the agricultural workplace and future impact on the industry. Personal barriers to fulfilling leadership roles in the agricultural sciences and natural resources. Skills related to managing teams in a diverse workplace specifically related to differences in gender, race and ethnicity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: Diversity, Society & Human Behavior

AGLE 3101 Introduction to Agricultural Leadership
Prerequisites: Major in AGLE or consent of instructor.
Description: Exploring leadership in the context of agriculture. Specific topics will include authentic leadership, independent thinking, commitment to agriculture, open minds and professionalism. Graded on a pass/fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3303 Agricultural Leadership: Theory and Practice
Description: A study of the concepts and theories of leadership with emphasis on the development of leadership abilities in the individual for different group situations. Previously offered as AGED 3303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3333 Contemporary Issues in Leadership
Prerequisites: AGLE 2303, AGLE 3303.
Description: Explore current issues in the study of leadership. Themes based on current leadership research and writings that reveal new understandings of the leader's role as a servant, facilitator and collaborator. Previously offered as AGED 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3403 Facilitating Social Change in Agriculture
Description: Examination of processes by which professional agriculturists influence the introduction, adoption, and diffusion of technological change. Previously offered as AGED 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3503 Introduction to Cooperative Extension
Description: Cooperative Extension mission, philosophy, history, organization, structure, administration, and program areas. Extension program development, Extension teaching and delivery methods, and the involvement and use of volunteers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 3803 Global Leadership in Agriculture (G)
Description: Contemporary global leadership in the context of agriculture. Challenges, cross-cultural conflict, managing diversity, and ethical behavior. Exploration of global leaders including Africans, Asians, Europeans, and Middle Easterners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership
General Education and other Course Attributes: International Dimension

AGLE 4101 Seminar in Leadership Education
Prerequisites: AGLE 2303, AGLE 3303.
Description: In-depth exploration of leadership topics related to agricultural sciences and natural resources.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4203 Professional Development in Agriculture
Prerequisites: AGLE 3101; junior standing.
Description: Preparation of professionals in agricultural business and industry and related areas who have career goals directed toward service, leadership, management, communications, production, processing, marketing, and education outside the public school setting. Development of professionalism through relationship building, networking, interviews, community involvement, business correspondence, websites and the resume. Previously offered as AGED 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4300 Agricultural Leadership Internship
Prerequisites: AGLE 3101, AGLE 4203 and consent of instructor.
Description: Supervised full-time internships in approved agribusinesses, governmental agencies or country extension offices. Requires written reports and a final presentation. Previously offered as AGED 4300. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 4303 Facilitating Leadership Education Programs
Prerequisites: AGLE 2303, AGLE 3303.
Description: Identification and application of methods and techniques for teaching leadership education programs in formal and non-formal educational settings. Focus on using experiential methods of teaching leadership.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4803 International Agricultural Leadership Tour
Description: An experiential approach to the study of contemporary culture, agriculture, and leadership in a region outside the United States. Contemporary leadership of the region and implications related to agriculture. Comparison of leadership and agricultural practices in the designated region to that of the United States. Includes a two-week international travel component.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 4990 Problems in Agricultural Leadership
Prerequisites: Consent of instructor.
Description: Small group and/or individual study and research in problems related to agricultural leadership. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 5102 Creative Component in Agricultural Leadership and Extension Education
Prerequisites: Consent of instructor.
Description: Independent project under the direction and supervision of a major advisor. Creative component projects address an agricultural leadership and/or extension education issue with the goal to inform or improve practice based upon scholarship. Open to students pursuing a Master of Agriculture degree (M.Ag.) with an option in Agricultural Leadership.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 5303 Foundations of Leadership Theory
Description: Study of leadership theory including definitions of leadership, a history of modern leadership theory, and current trends in leadership practice and research. Models of leadership including contingency models, situational leadership and transformational leadership. Previously offered as AGED 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 5353 Leadership in Agriculture
Prerequisites: AGLE 5303 or consent of instructor.
Description: Concepts, principles, and philosophies of leadership applied to agricultural contexts. Importance of traits, perceptions, and behaviors to success of agricultural professionals in leadership roles. Dimensions and style of leadership for varying situations. Previously offered as AGED 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

AGLE 5990 Problems in Agricultural Leadership and Extension Education
Prerequisites: Consent of instructor.
Description: Investigation in designated areas of agricultural leadership and/or extension education. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Ag Ed, Comm & Leadership

AGLE 6203 Extension Program Development
Description: A systematic study of the history, culture and functions of the Cooperative Extension System in America. Focus on program planning, including needs assessments, involvement of local constituent groups, use of the logic model, teaching methods, program evaluations, marketing and planning for the future. Previously offered as AGED 6200.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Ag Ed, Comm & Leadership

Undergraduate Programs

- Agricultural Leadership, BSAG (p. 2533)
- Agricultural Leadership: Extension Education, BSAG (p. 2535)
- Agricultural Leadership: International Studies, BSAG (p. 2537)

Graduate Programs

Students may pursue graduate studies in agricultural leadership through a Master of Agriculture in Agricultural Education and Leadership, the Master of Science degree in Agricultural Education and Leadership, or the department's Doctor of Philosophy degree programs.

The Master of Agriculture degree is an advanced studies program for practitioners seeking to develop their knowledge related to education, leadership, and their applications to the agricultural industry. Graduates pursue careers in teaching, school administration, Extension, government, corporate agriculture, and human resources and training. The Master of Agriculture program requires 32 approved semester hours of coursework including a 17-hour area of emphasis.

The Master of Science degree in Agricultural Education and Leadership offers students two options for completion of the degree: thesis option or formal report option. The thesis option requires 30 approved credit hours of coursework, which includes a six-credit hour formal thesis following the graduate college format. The formal report option requires 32 approved semester credit hours of coursework, including a two-credit hour formal report.

The Doctor of Philosophy program in Agricultural Education, Communications and Leadership is designed to prepare graduates for careers in professional education, supervision, administration, curriculum development and other areas of professional leadership in Agriculture, Agricultural Extension, Career and Technology, and Agricultural Communications. Within the minimum 60-credit hour requirement, 15 credit hours must be completed in the core area. In addition, 15 credit hours must be completed in an area of specialization such as Agricultural Extension, Technical Agriculture, Educational Administration, or other similar areas. The additional hours include 15 hours of research design and statistics and 15 hours for the dissertation.

Admission Requirements

Students seeking admission to the master's degree programs must have earned a bachelor's degree in agricultural leadership or a closely related field. A student with background deficiencies must compensate for such deficiencies before completing the Master of Science degree. Evidence of academic ability (2.80 GPA or above) in undergraduate coursework is required. Three letters of reference and a statement of purpose are also required. Graduate Record Exam (GRE) scores are required for students seeking admission to the Master of Science degree program.

Admission to the doctoral degree program is based upon evidence the applicant meets the general requirements of the Graduate College, has demonstrated superior achievement, and can successfully complete a doctoral program as evidenced by three letters of recommendation, GRE scores, a minimum of 2.80 undergraduate grade-point average and 3.00 graduate grade-point average, and a philosophy statement and goals. Alternative criteria may be considered by the graduate committee for those who submit ample supportive evidence of other exemplary qualifications.

Minors

- Agricultural Leadership (AGLE), Minor (p. 2532)

Faculty

J. Shane Robinson, PhD—Professor and Head
Professors: D. Dwayne Cartmell, PhD; M. Craig Edwards, PhD; Shelly R. Legg, PhD; Jon W. Ramsey, PhD; Robert Terry, Jr., PhD
Associate Professor: Angel Riggs, PhD; Quisto Settle, PhD
Assistant Professors: Courtney Brown, PhD; Lauren Cline, PhD; Bradley Coleman, PhD; Chris Eck, PhD; Audrey King, PhD
Lecturers: Kenna Sandburg, MS; Nathan Smith, MS; Kaylee Travis, MS

Agricultural Leadership (AGLE), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Minor Requirements		
AGLE 2303	Agricultural Leaders in Society (S)	3
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	3
AGLE 3303	Agricultural Leadership: Theory and Practice	3
AGLE 3403	Facilitating Social Change in Agriculture	3
AGLE 3803	Global Leadership in Agriculture (I)	3
Total Hours		**15**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Agricultural Leadership, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH (Q) or STAT (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Courses designated (N)		6
Must include one Laboratory-Based Inquiry (L) course		
Social & Behavioral Sciences (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
AGLE 3803	Global Leadership in Agriculture (G)	3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AECL 1101	Orientation to Agricultural Education, Communications and Leadership	1
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	4
or ANSI 1124	Introduction to the Animal Sciences	
ENTO 2003	Insects and Society (N)	3
or ENTO 3003	Livestock Entomology	
Select one of the following:		3
FDSC 1133	Fundamentals of Food Science	
FDSC 2233	The Meat We Eat	
FDSC 2253	Meat Animal and Carcass Evaluation	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
or HORT 1013	Principles of Horticultural Science (LN)	
Written & Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [2]	3
or ENGL 3323	Technical Writing	
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Hours Subtotal		**21**
Major Requirements		
Core Courses		
AGLE 1511	Introduction to Leadership in Agricultural Sciences and Natural Resources	1
AGLE 2303	Agricultural Leaders in Society (S)	3
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	3
AGLE 3101	Introduction to Agricultural Leadership	1
AGLE 3303	Agricultural Leadership: Theory and Practice	3
AGLE 3403	Facilitating Social Change in Agriculture	3
AGLE 4101	Seminar in Leadership Education	1
AGLE 4203	Professional Development in Agriculture	3
AGLE 4300	Agricultural Leadership Internship (6 hours)	6
Select 6 hours of the following:		6
AGLE 3333	Contemporary Issues in Leadership	
AGLE 3503	Introduction to Cooperative Extension	
AGLE 4303	Facilitating Leadership Education Programs	
Additional Requirements		
Select 3 hours of upper-division AGEC		3
Select 3 hours of NREM		3
Related Courses		
To be selected from areas related to agriculture and/or agricultural leadership including any courses with prefixes in Ferguson College of Agriculture, plus EPSY, PSYC, and MGMT.		18
Hours Subtotal		**54**
Electives		
Select 5 hours or hours to complete required total for degree		5
Hours Subtotal		**5**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, then hours are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Leadership: Extension Education, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH (Q) or STAT (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Courses designated (N)		6
Must include one Laboratory-Based Inquiry (L) course		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
AGLE 3803	Global Leadership in Agriculture (G)	3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AECL 1101	Orientation to Agricultural Education, Communications and Leadership	1
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	4
or ANSI 1124	Introduction to the Animal Sciences	
ENTO 2003	Insects and Society (N)	3
or ENTO 3003	Livestock Entomology	
Select one of the following:		3
FDSC 1133	Fundamentals of Food Science	
FDSC 2233	The Meat We Eat	
FDSC 2253	Meat Animal and Carcass Evaluation	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
or HORT 1013	Principles of Horticultural Science (LN)	
Written & Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [2]	3
or ENGL 3323	Technical Writing	
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Hours Subtotal		**21**
Major Requirements		
Core Courses		
AGLE 1511	Introduction to Leadership in Agricultural Sciences and Natural Resources	1
AGLE 2303	Agricultural Leaders in Society (S)	3
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	3
AGLE 3101	Introduction to Agricultural Leadership	1
AGLE 3303	Agricultural Leadership: Theory and Practice	3
AGLE 3403	Facilitating Social Change in Agriculture	3
AGLE 4101	Seminar in Leadership Education	1
AGLE 4203	Professional Development in Agriculture	3
AGLE 4300	Agricultural Leadership Internship (6 hours)	6
Select 6 hours of the following:		6
AGLE 3333	Contemporary Issues in Leadership	
AGLE 3503	Introduction to Cooperative Extension	
AGLE 4303	Facilitating Leadership Education Programs	
Additional Requirements		
AGEC 4723	Rural Economics Development	3
EPSY 3213	Psychology of Adolescence	3
or EPSY 3413	Child and Adolescent Development	
Select 3 hours of NREM		3
NSCI 2013 & NSCI 2011	Principles of Human Nutrition (N) and Applied Principles of Human Nutrition	4
SPED 3202	Educating Exceptional Learners	2
Related Courses		
To be selected from areas related to youth development, extension education, agriculture and/or agricultural leadership including any courses with prefixes in Ferguson College of Agriculture, plus EPSY, PSYC, and MGMT.		14
Hours Subtotal		**59**
Electives		

Select 0 hours or hours to complete required total for degree	0
Total Hours	**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, then hours are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Agricultural Leadership: International Studies, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH (Q) or STAT (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Courses designated (N)		6
Must include one Laboratory-Based Inquiry (L) course		
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
AGLE 3803	Global Leadership in Agriculture (G)	3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AECL 1101	Orientation to Agricultural Education, Communications and Leadership	1
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	4
or ANSI 1124	Introduction to the Animal Sciences	
ENTO 2003	Insects and Society (N)	3
or ENTO 3003	Livestock Entomology	
Select one of the following:		3
FDSC 1133	Fundamentals of Food Science	
FDSC 2233	The Meat We Eat	
FDSC 2253	Meat Animal and Carcass Evaluation	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
or HORT 1013	Principles of Horticultural Science (LN)	
Written & Oral Communications		
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [2]	3
or ENGL 3323	Technical Writing	
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Hours Subtotal		**21**
Major Requirements		
Core Courses		
AGLE 1511	Introduction to Leadership in Agricultural Sciences and Natural Resources	1
AGLE 2303	Agricultural Leaders in Society (S)	3
AGLE 2403	Agricultural Leadership in a Multicultural Society (DS)	3
AGLE 3101	Introduction to Agricultural Leadership	1
AGLE 3303	Agricultural Leadership: Theory and Practice	3
AGLE 3403	Facilitating Social Change in Agriculture	3
AGLE 4101	Seminar in Leadership Education	1
AGLE 4203	Professional Development in Agriculture	3
AGLE 4300	Agricultural Leadership Internship (6 hours)	6
Select 6 hours of the following:		6
AGLE 3333	Contemporary Issues in Leadership	
AGLE 3503	Introduction to Cooperative Extension	
AGLE 4303	Facilitating Leadership Education Programs	
Additional Requirements		
AGLE 4803	International Agricultural Leadership Tour (or approved international experience)	3
Select 3 hours of NREM		3
Select 3 hours of the following:		3
AGEC 4343	International Agricultural Markets and Trade (G)	
AGED 4713	International Programs in Agricultural Education and Extension (G)	
ANSI 3903	Agricultural Animals of the World (G)	
or NSCI 3543	Food and the Human Environment (GS)	
Select 9 hours from courses in the same foreign language		9
Related Courses		

To be selected from areas related to youth development, extension education, agriculture and/or agricultural leadership including any courses with prefixes in Ferguson College of Agriculture, plus EPSY, PSYC, and MGMT.	11
Hours Subtotal	**59**
Total Hours	**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, then hours are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Animal and Food Sciences

Animal science focuses on the science and business of the production of beef cattle, dairy cattle, horses, poultry, sheep, goats, swine, and pet/companion animals. An animal scientist is concerned with the application of the principles of the biological, physical, and social sciences associated with domestic animal production and management. Sustainability of livestock production systems is critical to feed the world safe, high-quality protein. Thus, meat production is a critical component of animal sciences.

The food industry is one of the largest and most important industries in the United States. Food scientists are concerned with the processing, safety, quality, and marketing of food, as well as the research and development of new products or improved processes to feed the continued growing world's population.

Undergraduate students may elect to pursue a Bachelor of Science degree in the department by majoring in either animal science or food science. Internship programs providing one to six months of off-campus work experience are available in all animal science options and are part of the curriculum for food science. Participation in undergraduate organizations (Leaders of Excellence in Animal and Food Sciences, Block and Bridle, Dairy Science, Horsemen's Association, Food Science Club, Meat Science Association, Oklahoma Collegiate Cattlewomen, Oklahoma Collegiate Cattlemen, Pre-Vet Club, Swine Club), judging teams (dairy cattle, horses, livestock, meat, or meat animal evaluation) and academic programs (honors, undergraduate research scholars, and academic quadrathlon) improve social, communication, leadership and academic skills and abilities.

Animal Science

Within the Animal Science major undergraduate students elect one of four options (predefined emphasis areas) of study: 1) General Animal Science, (2) Business/ Pre-Law, 3) Pre-Veterinary/ Pre-Medical, 4) Production and Operations. In addition, students have an opportunity to concentrate their studies on one or more animal species.

Students interested in veterinary medicine may complete the pre-veterinary medicine requirements at the same time they are working toward a BS degree in Animal Science. In addition, pre-vet students gain valuable insight into the care and management of domestic animals throughout the Animal Science curriculum.

Undergraduate students follow a similar curriculum during the first two years which includes basic courses in the physical, biological, and social sciences, and a series of introductory courses in agriculture and business. Upper-class students take a basic core of advanced Animal Science courses, including anatomy and physiology, genetics, reproductive physiology, and nutrition. As seniors, students complete a series of advanced Animal Science courses designed to apply knowledge obtained in previous courses to livestock systems. Every opportunity is taken to utilize the excellent herds and flocks owned or operated by the department.

Students completing an Animal Science degree have a wide choice of challenging careers, including ownership or management of farms, ranches or feedlots; employment with state and federal agencies concerned with inspection, grading or regulation; banking and financial activities, sales and service positions with companies involved with feeds, pharmaceuticals or other animal products; biotechnology; opportunities in Agricultural Extension or teaching; and work in the processing, distributing and merchandising of dairy, poultry and meat products. In addition, students have an opportunity to pursue advanced degrees in animal science or other professional degrees, including veterinary medicine, human medicine, dentistry, pharmacy, and law.

Minor in Animal Science

As a supplement to their chosen major, Animal Science coursework required for the minor will provide students with the knowledge to be competitive and succeed in the animal agriculture industry. The requirements include ANSI 1023 and ANSI 1021 Introduction to the Animal Sciences and 18 additional hours of Animal Science courses the student can select to personalize their programs. The basic core of advanced Animal Science courses includes anatomy and physiology, genetics, reproductive physiology, and nutrition. Students can then take advanced Animal Science courses designed to apply knowledge obtained in previous courses to animal systems.

Food Science

Food Science is an applied field. A food scientist is someone who applies the basic sciences: biology, physics, chemistry, and mathematics to further their understanding of the factors that affect food quality, safety, and nutrition. Food science is applied to the selection, preservation, processing, packaging, distribution, and use of safe, nutritious, and wholesome foods.

There are four study emphasis areas within the food science major: Science, Industry, Meat Science and Food Safety.

The Science emphasis gives students a well-rounded background in chemistry, physics, mathematics, and biology as well as Food Science. Students who elect this emphasis area usually have a primary interest in science and will be prepared to enter graduate education programs in Food Science.

This Science emphasis is also an excellent choice for students interested in professional schools such as medical school, dental school, pharmacy, or physical therapy. Students who elect not to pursue a graduate degree or a professional degree are prepared to work in any facet of the food industry, especially those jobs focused on research, product development and food analysis.

The Industry emphasis provides a basic understanding of the chemical and physical processes of food processing. Students pursuing this option are prepared to enter food plant management, quality assurance, quality control, product development and sales.

The Meat Science emphasis provides a background knowledge and understanding in live animal production, slaughter and fabrication, and meat processing, along with a basic understanding of chemical and physical processes of meat production. Students pursuing this option are prepared to enter the meat industry working in quality assurance, slaughter/fabrication, meat processing, product development and sales.

The Food Safety emphasis provides knowledge and experience in food safety issues and practices affecting all sectors of the food industry from production agriculture to wholesale and retail distribution channels. Students pursuing this option are prepared to enter the food industry with expertise in food safety programs, auditing, and quality assurance.

Minor in Food Science

The minor includes the core courses in Food Science. Requirements include FDSC 1133 Fundamentals of Food Science and 17 additional

hours of Food Science courses the student can select from to personalize their programs. The core of Food Science courses includes food chemistry, food microbiology, quality control and food analysis. There are also courses in specialized areas (e.g., meat science, dairy products) for students interested those industries. Students can complete their program with advanced courses in these areas.

Undergraduate Certificates

Undergraduate students in any OSU major can participate in our Equine Enterprise Management Certificate Program. This certificate program gives students an education focused on equine while preparing them to be knowledgeable professionals in the horse industry through advanced training and hands-on learning. The program is designed to ensure students are career-ready by equipping them with the knowledge and skills necessary to enter the horse industry.

Students from any OSU major can complete our Food Safety Certificate Program. The certificate program participants receive hands-on regulatory and customer-driven food safety programs training to prepare them for careers in the food industry. Students will have the opportunity to receive six internationally recognized certificates on HACCP, FSMA, and audit programs as part of their coursework. The program is designed to provide the food industry well-trained, qualified quality assurance professionals.

Courses

ANSI 1021 Introduction to the Animal Sciences Lab
Prerequisites: Concurrent enrollment in ANSI 1023.
Description: Laboratory to accompany ANSI 1023 - species adaptability, product standards and requirements areas and types of production, processing and distribution of products, includes meat animals, dairy and poultry.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 1023 Introduction to the Animal Sciences
Prerequisites: Concurrent enrollment in ANSI 1021.
Description: Species adaptability, product standards and requirements areas and types of production, processing and distribution of productions, includes meat animals, dairy and poultry. Previously offered as ANSI 1124.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 1124 Introduction to the Animal Sciences
Description: Species adaptability, product standards and requirements, areas and types of production, processing and distribution of products, includes meat animals, dairy and poultry.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 1401 Equine Behavior and Handling
Description: Equine management techniques - understanding equine behavior and anatomy. Basic equine handling, management principles, hoof care, dental care, first aid and wound care. Introduction to behavior and training of the horse, techniques of safe handling based on the principles of equine behavior.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 2111 Animal and Food Science Professional Development
Description: Student development through study of career goals specific to animal or food science, eventual career development through resume building, internships, and networking. Previously offered as ANSI 1111.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2112 Live Animal Evaluation
Prerequisites: ANSI 1124.
Description: Using tools for selection including performance records, pedigree information and visual appraisal, in the evaluation of cattle, swine, sheep, horses and poultry.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 2123 Livestock Feeding
Description: Nutrients and their functions, nutrient requirements of the various classes of livestock; composition and classification of feed stuffs and ration formulation. Not required of animal science majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2233 The Meat We Eat
Description: Overview of all animal, poultry, and fish protein sources used for human consumption, but focusing on red meat. Examination of each phase of production, inspection, safety, grading, processing, preparation, and current issues of the industries. Development of an understanding of the importance of meat in the diet and part of global agriculture. Same course as FDSC 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 2253 Meat Animal and Carcass Evaluation
Description: Evaluation of carcasses and wholesale cuts of beef, pork, and lamb. Factors influencing grades, yields and values in cattle, swine and sheep. Same course as FDSC 2253.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences
General Education and other Course Attributes: Honors Credit

ANSI 3123 Livestock Health and Diseases
Prerequisites: ANSI 1124.
Description: Diseases of farm animals, both infectious and noninfectious, parasites, parasitic diseases, and the establishment of immunity through the use of biological products, prevention and/or treatment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3212 Advanced Dairy Cattle Evaluation
Description: Advanced evaluation of type traits as they relate to longevity and profitability in the dairy cow.
Credit hours: 2
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3222 Advanced Equine Evaluation
Description: Advanced evaluation of halter and performance horses. Includes both Western and English disciplines.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3232 Advanced Meat Evaluation
Description: Advanced evaluation of carcasses and wholesale cuts of beef, pork and lamb. Same course as FDSC 3232.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3242 Advanced Livestock Evaluation
Prerequisites: ANSI 2112.
Description: Advanced evaluation of beef cattle, sheep, and swine.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3252 Advanced Wool Evaluation
Description: Advanced instruction in wool grading.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3310 Advanced Competitive Evaluation
Prerequisites: Consent of instructor.
Description: Advanced instruction in animal and/or product evaluation. For students competing on collegiate judging teams. Same course as FDSC 3310. Offered for fixed credit, 2 credit hours, maximum of 6 credit hours.
Credit hours: 2
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Clinical
Department/School: Animal & Food Sciences

ANSI 3312 Advanced Meat Animal Evaluation
Description: Advanced evaluation and pricing of meat animals. For students competing on the Meat Animal Evaluation Team.
Credit hours: 2
Contact hours: Contact: 4 Other: 4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3322 Applied Meat Animal Selection
Prerequisites: ANSI 3310 and consent of instructor.
Description: Applied selection of meat animals using principles of genetics, animal breeding, and phenotypic evaluation in real world selection scenarios to predict the value of breeding and market livestock.
Credit hours: 2
Contact hours: Contact: 6 Other: 6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3333 Meat Science
Description: Anatomical and basic chemical and physical characteristics of meat animals studied. The application of scientific principles to the processing and economical utilization of meat animals, as well as in the manufacture of meat products emphasized in the laboratory. Same course as FDSC 3333. May not be used for degree credit with ANSI 5433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3402 Equine Training Methods
Description: Basic techniques of equine training. Performance of various maneuvers including halter breaking, saddling, longing, driving, and riding. Course previously offered as ANSI 3202.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3410 Peer-Led Team Learning in Animal Science
Prerequisites: Consent of instructor.
Description: Selected undergraduate students work as peer leaders for learning teams for Animal Science courses. Development of oral and written communication skills of technical concepts in animal science. Duties include meeting regularly with discussion and laboratory sessions, participating in instructional activities and evaluating class performance. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Lab 1-5.
Credit hours: 1-6
Contact hours: Lecture: 1 Lab: 2-10 Contact: 3-11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3414 Form and Function of Livestock and Poultry
Prerequisites: ANSI 1124 and BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Form and function of livestock and poultry. Major systems (muscle, skeletal, neural, endocrine, cardiovascular, respiratory and gastrointestinal) with emphasis on comparative anatomy and integrated function related to livestock in agricultural production systems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3420 Undergraduate Research in Animal and Food Science
Description: Designed for students participating in undergraduate research in Animal and Food Sciences. Students actively participate in research methodologies, including foundational research theories and protocols. Previously offered as ANSI 1223. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3423 Animal Genetics
Prerequisites: Undergraduate level BIOL 1114 or (BIOL 1113 and BIOL 1111), minimum grade of C.
Description: The basic principles of heredity including: kinds of gene action, random segregation, independent assortment, physical and chemical basis of heredity, mutations, sex-linkage, chromosome mapping, multiple alleles and chromosomal abnormalities. Also a brief introduction to quantitative inheritance and population genetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3433 Animal Breeding
Prerequisites: ANSI 3423.
Description: The application of genetic principles to livestock improvement; study of the genetic basis of selection and systems of mating; development of breeding programs based on principles of population genetics.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3444 Animal Reproduction
Prerequisites: Introductory biology.
Description: Physiological processes of reproduction in farm animals including male and female anatomy, gonad function, endocrine relationships, fertility, and factors affecting reproduction efficiency. In the laboratory, emphasis on artificial insemination, estrous synchronization, embryo production via multiple ovulation embryo transfer (MOET) and in vitro fertilization (IVF), cryopreservation of gametes or embryos, and pregnancy determination. Previously offered as ANSI 3443.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3453 Canine and Feline Genetics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: Overview of fundamental genetic principles and the control of genetic variation in coat color, various disorders and other inherited feline and canine characteristics. Inherited conditions, the underlying genetic mutation if known, genomic technologies used to identify the mutations if unknown, and development of genetic tools to assist in canine and feline genetic testing and selection programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3463 Equine Genetics
Description: Basic Mendelian genetics with direct application to horses. Genetic principles and inheritance of particular equine characteristics and common genetic disorders.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 3533 Equine Management and Production
Description: Current topics and trends in the horse industry. Basic principles of equine nutrition, reproduction, marketing, exercise physiology, health care, coat-color genetics, behavior and welfare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3543 Principles of Animal Nutrition
Prerequisites: CHEM 1215 or equivalent.
Description: Basic principles of animal nutrition including digestion, absorption, and metabolism of the various food nutrients; characteristics of the nutrients; measure of body needs; ration formulation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3623 Livestock Behavior and Environmental Interactions
Prerequisites: ANSI 1124.
Description: Animal behavior and animal-environment interactions related to health, productivity, and overall well-being of food animals. Concepts to improve housing accommodations, management strategies for animals to improve animal and human well-being and to use behavior as a tool for assessing welfare and improving human-animal interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3633 Equine Sales Preparation
Description: Discussion and application of equine behavior modification and training techniques. Sale preparation, marketing techniques. Students will be responsible for completing safe and successful groundwork and riding of an OSU 2-year-old. Riding experience required.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3643 Equine Breeding and Foaling
Description: Discussion and application of current management practices in horse reproduction. Breeding methods and foaling procedures, safety and biosecurity, health and nutrition, reproductive anatomy and hormones, behavior and handling.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3651 Applied Animal Nutrition Lab
Prerequisites: ANSI 3543 and ANSI 3653 (or concurrent enrollment in ANSI 3653).
Description: Basic nutritional calculations and ration formulation for various classes of livestock; Formulation of rations and supplements to meet specific requirements using spreadsheet based formulators.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Animal & Food Sciences

ANSI 3653 Applied Animal Nutrition
Prerequisites: ANSI 3543.
Description: Composition, characteristics, and nutritive value of feeds and feed additives; feed labeling and regulation; qualitative and quantitative nutrient requirements of various classes of livestock; theory of feeding and supplementing various classes of livestock to meet specific nutrient requirements.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3703 Animal Management Techniques
Description: Animal handling and management practices. Basic husbandry procedures for domestic animals in farm, ranch, and/or other production settings or environments. Emphasis on practical handling, restraint, health evaluation, medication and treatment practices.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 3753 Basic Nutrition for Pets
Description: Nutrients, nutrient requirements, feeding practices, food sources, and diet management for pets and companion animals as well as exotic animals and birds.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 3903 Agricultural Animals of the World (G)
Description: The production and utilization of agricultural animals by human societies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences
General Education and other Course Attributes: International Dimension

ANSI 4023 Poultry Science
Prerequisites: ANSI 1124 or (ANSI 1023 and ANSI 1021) and ANSI 3543.
Description: Application of poultry physiology to the management and production of commercial broilers, layers, and turkeys using a science-based approach to evaluate industry practices, compare economic factors, and welfare standards between breeds and housing systems.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4132 Welfare Assessment and Audit of Farm Animals
Prerequisites: ANSI 3623.
Description: Reliable, science-based, on-farm and slaughter welfare assessment systems for cattle, pigs and poultry as well as a methodology to convey welfare measures into understandable product information.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4203 Rangeland and Pasture Utilization
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. Same course as NREM 4603. May not be used for Degree Credit with ANSI 5203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture and fiber characteristics.Same course as FDSC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4333 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. Same course as FDSC 4333. May not be used for Degree Credit with ANSI 5833.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4423 Horse Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Current concepts and production principles related to the horse industry including nutrition, reproduction, herd health, functional anatomy and implications, social behavior, and applying principles of psychology in horse management and training.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4523 Pet and Companion Animal Management
Prerequisites: ANSI 1124.
Description: Current concepts, management principles related to pet and companion animal species and their roles in society. Discussion of the human-animal bond, service animals, kennel and cattery management, anatomy, internal and external parasites, toxins, restraint and handling, reproduction, nutrition, genetics, and breeding. Previously offered as ANSI 3523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4543 Dairy Cattle Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Current concepts and production principles of the dairy cattle industry including value of milk products, milk marketing, physiology of lactation, reproduction, nutrition, mastitis, and housing. Analysis and active learning of dairy production systems using farm visits and field techniques laboratories. May not be used for Degree Credit with ANSI 5543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4553 Sheep Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Breeding, feeding, management, and marketing of commercial and purebred sheep. May not be used for degree credit with ANSI 5653.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4613 Beef Cow-Calf Management
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of farm and ranch land procurement and management principles with beef cattle acquisition, breeding, nutrition, reproduction, health, life cycle management, marketing, and economic analysis of the commercial cow-calf enterprise. Same course as ANSI 4612. May not be used for Degree Credit with ANSI 5813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4633 Stocker and Feedlot Cattle Management
Prerequisites: ANSI 3612, ANSI 3653.
Description: Application of scientific knowledge, management principles, and research advances to modern stocker and feedlot cattle operations. Same course as ANSI 4632. May not be used for Degree Credit with ANSI 5633.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4643 Swine Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of genetic, physiological, microbiological, nutritional, and engineering principles to the efficient production of swine. May not be used for Degree Credit with ANSI 5643.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4703 Equine Enterprise Management
Prerequisites: ANSI 3433 and ANSI 3443 and ANSI 3653.
Description: Principles of equine enterprise management including ethical and legal issues, marketing, facility management, business structures, economic analysis and careers. May not be used for Degree Credit with ANSI 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4713 Beef Seedstock Management and Sales
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Principles of beef cattle seedstock acquisition, breeding, nutrition, reproduction, health, life cycle management and economic analysis. Special emphasis on advertising, promotion, marketing and sales. Course previously offered as ANSI 4632.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4803 Animal Growth and Performance
Prerequisites: An upper-division course in animal science.
Description: Physiological and endocrine factors affecting growth and performance of domestic animals. May not be used for Degree Credit with ANSI 5803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4823 Animal Genomics
Prerequisites: ANSI 3423 or equivalent.
Description: Introduction to analyzing genomes of common livestock species. Understanding the theory of next generation sequencing methods, and how these are applied in the field of livestock genomics, genome resequencing, analysis of genomic variant data, annotating a genome sequence using transcriptomics and proteomics and epigenomics. An introduction to assigning function to genes and genomic regions, exposure to the principles in molecular, comparative and evolutionary genetics/genomics and the application of these principles to livestock genomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4843 Applications of Biotechnology in Animal Science
Prerequisites: ANSI 3423 and BIOC 3653.
Description: Training in current biotechniques used in protein, hormone, and molecular genetic research in food and animal science. Theory and applications of the various techniques.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4863 Capstone for Animal Agriculture
Prerequisites: Senior standing.
Description: Examination of the role of animal agriculture in society and the importance of research and current issues. Oral and written reports.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 4900 Special Problems
Prerequisites: Consent of instructor.
Description: A detailed study of an assigned problem by a student wishing additional information on a special topic. Offered for variable credit,1-6 credits, maximum or 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 4910 Animal Industry Internship
Prerequisites: Consent of instructor.
Description: Full-time internship at an approved production, processing or agribusiness unit or other agency serving animal agriculture. Maximum credit requires a six-month internship in addition to a report and final examination. Graded on a pass-fail basis. May not be used for degree credit with ANSI 5910. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 4913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. Same course as SOIL 4913, ENVR 4913. May not be used for Degree Credit with ANSI 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 4973 Rangeland Resources Planning
Prerequisites: NREM 3613.
Description: Inventory or ranch resources, survey and evaluation of ranch practices, and economic analysis. Development of a comprehensive ranch management plan. Managing rangeland and ranch resources in a social context. Written and oral reports. Field trips required. Same course as NREM 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5000 Master's Research and Thesis
Prerequisites: MS degree.
Description: Independent research planned, conducted, and reported in consultation with a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5010 Special Problems
Description: Special problems in areas of animal science other than those covered by the individual graduate student as a part of his/her research and thesis program. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5102 Ethics and Professionalism in Animal and Food Science
Description: Discussion of regulations, laws, and resources; insights on complex ethical issues, including but not limited to research misconduct, how to address, report and find resources during cases of misconduct, conflicts of interest, and authorship; communication of research and accurately and objectively to different audiences. Same course as FDSC 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5110 Seminar
Description: A critical review and study of the literature; written and oral reports and discussion on select subjects. Same course as ANSI 6110. Offered for 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5113 Basic Reproductive Physiology
Prerequisites: ANSI 3443 or equivalent.
Description: Female and male reproductive processes, endocrine control of reproductive functions, and the application of reproductive physiology to animal production.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5123 Functional and Molecular Endocrinology
Prerequisites: An upper division physiology course.
Description: Endocrine regulation of growth, stress, metabolism, and reproduction in domestic farm animals including commercial applications. Focus on the influence of hormones at the systemic and cellular level.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5133 Reproductive Management of Cattle
Prerequisites: Graduate status
Description: Overview of reproductive management strategies for dairy and beef cattle. Hands-on training includes artificial insemination, uterine palpation for pregnancy detection, and ultrasonography to evaluate the uterus and ovarian structures.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5203 Rangeland and Pasture Utilization
Prerequisites: NREM 3613.
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. May not be used for Degree Credit with ANSI 4203.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5213 Advances in Meat Science
Prerequisites: ANSI 3333 or FDSC 3333.
Description: Development of muscle and its transformation to meat. Properties of meat and their influence on water-binding, pigment formation, texture and fiber characteristics. Same course as FDSC 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5303 Advanced Animal Breeding
Prerequisites: ANSI 3433 or equivalent and STAT 4013.
Description: Basic concepts of population genetics as related to theoretical animal breeding, including heritability, genetic correlations, selection methods, inbreeding and heterosis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5313 Marker Assisted Selection in Livestock
Prerequisites: ANSI 3433 or equivalent and STAT 4013.
Description: Use of molecular genetics information to capture variation of quantitative traits in farm animals and to enhance selection improvement programs. Discussion of current DNA based technologies, such as detecting, locating and measuring effects of quantitative trait loci (QTL), genetic markers, gene mapping methods and whole genome selection. Examination of emerging genomics technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5333 Carcass Value Estimation Systems
Prerequisites: Graduate classification.
Description: Analysis of scientific literature regarding carcass composition, quality and palatability. Overview of technology used to evaluate carcass quality factors. Same course as FDSC 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5423 Animal Stress and Environmental Physiology
Description: Interrelationship between the stress axis and other biological systems that can impact health and well-being of animals. General concepts of stress physiology, brain mechanisms, cellular pathways, and intercommunication of physiology, behavior, immunology, growth and development, reproduction/lactation, health, and disease.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5433 Meat Science
Description: Anatomical and basic chemical and physical characteristics of meat animals studied. The application of scientific principles to the processing and economical utilization of meat animals, as well as in the manufacture of meat products emphasized in the laboratory. Mya not be used for degree credit with ANSI 3333 and FDSC 3333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5543 Dairy Cattle Science
Prerequisites: ANSI 3433, ANSI 3443 and ANSI 3653.
Description: Current concepts and production principles of the dairy cattle industry including value of milk products, milk marketing, physiology of lactation, reproduction, nutrition, mastitis, and housing. Analysis and active learning of dairy production systems using farm visits and field techniques laboratories. May not be used for degree credit with ANSI 4543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5553 Interpreting Animal and Food Science Research
Prerequisites: STAT 5013 or concurrent enrollment.
Description: Critical evaluation and knowledgeable communication on the design, analyses, and reporting of animal science and food science research. Same course as FDSC 5553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5573 Techniques in Animal Molecular Biology
Prerequisites: BIOC 4113.
Description: Principles of major basic animal molecular biology techniques in gene cloning and expression. Hands-on experience with basic molecular biology techniques, including DNA cloning and quantitative measurement of mRNA and protein expression in eukaryotic cells.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5613 Advanced Beef Production
Description: Beef cattle breeding, nutrition, reproduction, health and disease prevention, life cycle management of the calf crop, as well as marketing alternatives for the producer. Farm and Ranch acquisition, management, including the stocker and/or feedlot phase.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5623 Livestock Behavior and Environmental Interaction
Description: Integrated approach to animal behavior and animal-environment interactions as it relates to health, productivity, and overall well-being to food animals. Concepts related to practical ways to improve housing accommodations, management strategies for animals that improve animal and human well-being use of behavior to assess the adaptability of animals in their environments. ANSI 5623 was used to denote Exp Methods Animal Res prior to Fall 1995. May not be used for degree credit with ANSI 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5633 Stocker and Feedlot Cattle Management
Prerequisites: ANSI 3653.
Description: Application of scientific knowledge, management principles, and research advances to modern stocker and feedlot cattle operations. May not be used for degree credit with ANSI 4633.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5643 Swine Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of genetic, physiological, microbiological, nutritional, and engineering principles to the efficient production of swine. May not be used for degree credit with ANSI 4643.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5653 Sheep Science
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Breeding, feeding, management, and marketing of commercial and purebred sheep. May not be used for degree credit with ANSI 4553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5703 Equine Enterprise Management
Prerequisites: ANSI 3433 and ANSI 3443 and ANSI 3653.
Description: Principles of equine enterprise management including ethical and legal issues, marketing, facility management, business structures, economic analysis and careers. May not be used for degree credit with ANSI 4703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5733 Advanced Ruminant Nutrition
Prerequisites: ANSI 3653.
Description: Factors influencing nutrient requirements of ruminants for maintenance, growth, reproduction and lactation, and their implications with regard to husbandry practices and nutritional management of livestock. Application of current concepts of ruminant livestock nutrition; use of microcomputer programs in diet evaluation and formulation, beef gain simulation and problem solving.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5743 Rumenology
Prerequisites: ANSI 3653 or equivalent.
Description: Physiology of development of the ruminant digestive tract; the nature of, and factors controlling digestion and absorption from the tract to include the relative nature and roles of the rumen bacteria and protozoa. Same course as ANSI 5743.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5753 Animal Nutrition Techniques and Laboratory Methods
Prerequisites: CHEM 3015 or equivalent.
Description: Collection, handling, and processing of biological materials. Record keeping, pipetting, preparation of reagents, and conducting routine nutritional analysis. Theory of operation of major laboratory equipment. Application of current techniques to problem solving in animal nutrition research.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5763 Advanced Nonruminant Nutrition
Prerequisites: BIOC 3653.
Description: An in-depth study of the digestion, absorption, and metabolism of nutrients in nonruminant domesticated farm animals. Unique metabolic characteristics of nonruminant species contrasted with ruminant animals. Fundamentals of energetics as related to animal performance. Same course as ANSI 5762.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5773 Protein Nutrition
Prerequisites: BIOC 3653.
Description: Nutritional, biochemical and clinical aspects of protein metabolism as it relates to nutritional status. Same course as ANSI 5772.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5783 Vitamin and Mineral Nutrition
Prerequisites: BIOC 5753.
Description: Development of the concept of dietary essential minerals and vitamins. Individual minerals and vitamins discussed for animal species from the standpoint of chemical form, availability, requirements, biochemical systems, deficiencies and excesses and estimation in foods and feed. Same course as ANSI 5782.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5803 Animal Growth and Performance
Prerequisites: An upper-division course in animal science.
Description: Physiological and endocrine factors affecting growth and performance of domestic animals. May not be used for degree credit with ANSI 4803.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5813 Beef Cow-Calf Management
Prerequisites: ANSI 3423 and ANSI 3543.
Description: Application of farm and ranch land procurement and management principles with beef cattle acquisition, breeding, nutrition, reproduction, health, life cycle management, marketing, and economic analysis of the commercial cow-calf enterprise. May not be used for Degree Credit with ANSI 4613.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5823 Animal Genomics
Prerequisites: ANSI 3423 or equivalent.
Description: Introduction to analyzing genomes of common livestock species. Understanding the theory of next generation sequencing methods, and how these are applied in the field of livestock genomics, genome resequencing, analysis of genomic variant data, annotating a genome sequence using transcriptomics and proteomics and epigenomics. An introduction to assigning function to genes and genomic regions, exposure to the principles in molecular, comparative and evolutionary genetics/genomics and the application of these principles to livestock genomics. Same course as ANSI 4823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 5833 Processed Meat
Prerequisites: ANSI 3033 or ANSI 3333.
Description: Meat and meat product composition. Techniques in the molding and forming of meat; sausage formulation; curing; quality control; and cost analysis. May not be used for degree credit with ANSI 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Animal & Food Sciences

ANSI 5910 Animal Industry Internship
Prerequisites: Consent of instructor.
Description: Full-time internship at an approved production, processing or agribusiness unit or other agency serving animal agriculture. Maximum credit requires a six-month internship in addition to a report and final examination. Graded on a pass-fail basis. May not be used for degree credit with ANSI 4910. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 5913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. May not be used for degree credit with ANSI 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Animal & Food Sciences

ANSI 6000 Doctoral Research and Dissertation
Prerequisites: MS degree.
Description: Independent research planned, conducted and reported in consultation with, and under the direction of, a major professor. Open only to students continuing beyond the level of the MS degree. Offered for variable credit, 1-10 credit hours, maximum of 30 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 6010 Special Topics in Animal Breeding
Prerequisites: Consent of instructor.
Description: Advanced topics and new developments in animal breeding and population genetics. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

ANSI 6110 Seminar
Description: A critical analysis of the objectives and methods of research in the area of animal science. Review of the literature, written and oral reports and discussion on select topics. Same course as ANSI 5110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Animal & Food Sciences

Undergraduate Programs

- Animal Science: Business/Pre-Law, BSAG (p. 2552)
- Animal Science: General Option, BSAG (p. 2554)

- Animal Science: Pre-Veterinary/Pre-Medical, BSAG (p. 2556)
- Animal Science: Production and Operations, BSAG (p. 2558)
- Food Science, BSAG (p. 2563)

Graduate Programs

The Department of Animal and Food Sciences offers programs leading to the Doctor of Philosophy and Master of Science degrees in Animal Science and contributes to the interdepartmental Food Science graduate program. Research areas of emphasis are available in breeding (quantitative and molecular genetics), behavior, nutrition, grazing, management, immunology, reproduction, physiology, biotechnology, and meat science.

Prerequisites

Admission to the Animal Science graduate program requires an undergraduate major in Animal Science or a related field (such as Dairy Science, Poultry Science, Biology, Biochemistry, etc.). In addition, students with a major in Dairy Manufacturing, Microbiology, Human Nutrition, Food Science or Food Technology can qualify for the Food Science program. To be admitted, prospective students must have an agreement from an Animal and Food Sciences faculty member to serve as their graduate advisor. In all cases, the student's graduate advisor or committee may identify specific undergraduate deficiencies and require measures to attain proficiency.

Certificates

- Equine Enterprise Management, UCRT (p. 2560)
- Food Safety, UCRT (p. 2561)

Minors

- Animal Science (ANSI), Minor (p. 2551)
- Food Science (FDSC), Minor (p. 2562)

Faculty

Richard Coffey, PhD—Professor and Head
Professors: Paul Beck, PhD; Udaya DeSilva, PhD; Gerald Fitch, PhD; Mark Johnson, PhD; David Lalman, PhD; Gretchen Mafi, PhD; Peter Muriana, PhD; Ranjith Ramanathan, PhD; Ryan Reuter, PhD; Janeen Salak-Johnson, PhD; Guolong Zhang, PhD
Associate Professors: Scott Carter, PhD; Steven Cooper, PhD; Andrew Foote, PhD; Ravi Jadeja, PhD; Darren Hagen, PhD; Kris Hiney, PhD; Adele Pezeshki, PhD; Dan Stein, PhD; Blake Wilson, PhD
Assistant Professors: Sabrina Amorim, PhD; Mellissa Crosswhite, PhD; Parker Henley, PhD; Khursheed Iqbal, PhD; João Moraes, PhD; Morgan Pfeiffer, PhD
Teaching Instructors: Meaghan Meyer, PhD; Jason White, MS
Senior Extension Specialist: Barry Whitworth, PhD, DVM
Assistant Extension Specialist: Justin Crosswhite, MS

Animal Science (ANSI), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 22

Code	Title	Hours
Minor Requirements		
ANSI 1124	Introduction to the Animal Sciences	4
Select 18 hours of the following: [1]		18
ANSI 2253	Meat Animal and Carcass Evaluation	
ANSI 3333	Meat Science	
ANSI 3423	Animal Genetics	
ANSI 3433	Animal Breeding	
ANSI 3444	Animal Reproduction	
ANSI 3543	Principles of Animal Nutrition	
ANSI 3623	Livestock Behavior and Environmental Interactions	
ANSI 3653	Applied Animal Nutrition	
ANSI 3753	Basic Nutrition for Pets	
ANSI 4023	Poultry Science	
ANSI 4203	Rangeland and Pasture Utilization	
ANSI 4333	Processed Meat	
ANSI 4423	Horse Science	
ANSI 4543	Dairy Cattle Science	
ANSI 4553	Sheep Science	
ANSI 4613	Beef Cow-Calf Management	
ANSI 4633	Stocker and Feedlot Cattle Management	
ANSI 4643	Swine Science	
ANSI 4703	Equine Enterprise Management	
ANSI 4803	Animal Growth and Performance	
ANSI 4863	Capstone for Animal Agriculture	
Total Hours		**22**

1

At least 3 of these credits must be from 4000-level courses.

Other Requirements

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Animal Science: Business/Pre-Law, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Select one of the following:		3
STAT 2013	Elementary Statistics (Q) [1]	
STAT 2023	Elementary Statistics for Business and Economics (Q) [1]	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1, 5]	
BIOL 1114	Introductory Biology (LN) [1, 5]	
Any course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1, 5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
Select one of the following courses: [5]		3
HORT 1013	Principles of Horticultural Science (LN) [5]	
PLNT 1213	Introduction to Plant and Soil Systems (N) [5]	
SOIL 1113	Land, Life and the Environment (N) [5]	
Select four hours from the following:		4
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab [5]	
ANSI 1124	Introduction to the Animal Sciences [5]	
ANSI 2111	Animal and Food Science Professional Development [5]	1
ANSI 2253	Meat Animal and Carcass Evaluation [5]	3
or ANSI 2233	The Meat We Eat	
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Written and Oral Communications		
Select of the following: [5]		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
ENGL 3323	Technical Writing [3]	
BCOM 3113	Written Communication	
Select one of the following: [4, 5]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4, 5]	
SPCH 2713	Introduction to Speech Communication (S) [4]	
SPCH 3733	Elements of Persuasion (S) [4]	
ANSI 3423	Animal Genetics [5]	3
ANSI 3433	Animal Breeding [5]	3
ANSI 3444	Animal Reproduction	4
ANSI 3543	Principles of Animal Nutrition [5]	3
ANSI 3653	Applied Animal Nutrition [5]	3
Hours Subtotal		**38**
Major Requirements		
Core Courses		
ANSI 4863	Capstone for Animal Agriculture	3
Select 6 hours of the following:		6
ANSI 3123	Livestock Health and Diseases	
ANSI 3333	Meat Science	
ANSI 3414	Form and Function of Livestock and Poultry	
ANSI 3533	Equine Management and Production	

ANSI 3623	Livestock Behavior and Environmental Interactions	
ANSI 3753	Basic Nutrition for Pets	
Select 9 hours from the following:		9
ANSI 4023	Poultry Science	
ANSI 4203	Rangeland and Pasture Utilization	
ANSI 4423	Horse Science	
ANSI 4523	Pet and Companion Animal Management	
ANSI 4543	Dairy Cattle Science	
ANSI 4553	Sheep Science	
ANSI 4613	Beef Cow-Calf Management	
ANSI 4633	Stocker and Feedlot Cattle Management	
ANSI 4643	Swine Science	
ANSI 4703	Equine Enterprise Management	
ANSI 4713	Beef Seedstock Management and Sales	
ANSI 4803	Animal Growth and Performance	
Select 3 hours of the following:		3
ANSI 3310	Advanced Competitive Evaluation	
ANSI 3312	Advanced Meat Animal Evaluation	
ANSI 3322	Applied Meat Animal Selection	
ANSI 3410	Peer-Led Team Learning in Animal Science	
ANSI 3420	Undergraduate Research in Animal and Food Science	
ANSI 4910	Animal Industry Internship	
AG 3080	International Experience	
Select one of the following Emphasis areas:		18
Business Emphasis		
ACCT 2103	Financial Accounting	
or ACCT 2003	Survey of Accounting	
Select 15 upper-division hours of AGEC, ECON, EEE, FIN, MKTG, MGMT		
Pre-Law Emphasis		
ACCT 2103	Financial Accounting	
or ACCT 2003	Survey of Accounting	
AGEC 3703	Issues in Agricultural Policy	
AGEC 3713	Agricultural Law	
or POLS 4363	Environmental Law And Policy	
Select 9 upper-division hours of AGEC, ECON, EEE, FIN, MKTG, MGMT, POLS.		
Related Courses		
Select 3 hours from any upper-division courses from Ferguson College of Agriculture		3
Hours Subtotal		**42**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

[1] College and Departmental requirements that may be used to meet General Education requirements.

[2] If used for (N) requirement, hours in this block are reduced by CHEM course hours and related courses increased.

[3] If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3.

[4] If used as an additional (S) course above, hours in this block reduced by 3.

[5] Hours meeting the major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Animal Science: General Option, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1, 5]	
BIOL 1114	Introductory Biology (LN)	
Any course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1, 5]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
Select one of the following: [5]		3
HORT 1013	Principles of Horticultural Science (LN) [5]	
PLNT 1213	Introduction to Plant and Soil Systems (N) [5]	
SOIL 1113	Land, Life and the Environment (N) [5]	
SOIL 2124	Fundamentals of Soil Science (N) [5]	
Select four hours from the following:		4
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab [5]	
ANSI 1124	Introduction to the Animal Sciences [5]	
ANSI 2233	The Meat We Eat [5]	3
or ANSI 2253	Meat Animal and Carcass Evaluation	
ANSI 2111	Animal and Food Science Professional Development [5]	1
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Written and Oral Communications		
Select one of the following: [3, 5]		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
BCOM 3113	Written Communication [5]	
ENGL 3323	Technical Writing [3]	
Select one of the following: [4,5]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4, 5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
ANSI 3423	Animal Genetics [5]	3
ANSI 3433	Animal Breeding [5]	3
ANSI 3444	Animal Reproduction [5]	4
ANSI 3543	Principles of Animal Nutrition [5]	3
ANSI 3653	Applied Animal Nutrition [5]	3
Hours Subtotal		**38**
Major Requirements		
Core Courses		
ANSI 2112	Live Animal Evaluation	2
ANSI 4863	Capstone for Animal Agriculture	3
Select 3 hours from the following:		3
ANSI 3310	Advanced Competitive Evaluation	
or ANSI 3312	Advanced Meat Animal Evaluation	

or ANSI 3322	Applied Meat Animal Selection	
or ANSI 3410	Peer-Led Team Learning in Animal Science	
or ANSI 3420	Undergraduate Research in Animal and Food Science	
or ANSI 4910	Animal Industry Internship	
AG 3080	International Experience	
Select 6 hours from the following:		6
ANSI 3123	Livestock Health and Diseases	
ANSI 3333	Meat Science	
ANSI 3414	Form and Function of Livestock and Poultry	
ANSI 3533	Equine Management and Production	
ANSI 3623	Livestock Behavior and Environmental Interactions	
ANSI 3753	Basic Nutrition for Pets	
Select 6 hours from the following:		6
ANSI 4023	Poultry Science	
ANSI 4203	Rangeland and Pasture Utilization	
ANSI 4423	Horse Science	
ANSI 4523	Pet and Companion Animal Management	
ANSI 4543	Dairy Cattle Science	
ANSI 4553	Sheep Science	
ANSI 4613	Beef Cow-Calf Management	
ANSI 4633	Stocker and Feedlot Cattle Management	
ANSI 4643	Swine Science	
ANSI 4703	Equine Enterprise Management	
ANSI 4713	Beef Seedstock Management and Sales	
ANSI 4803	Animal Growth and Performance	
Additional Core Courses		
Select 9 upper-division hours of AGCM, AGEC, AGED		9
Related Courses		
Select 13 hours from any courses in ANSI or from Ferguson College of Agriculture.		13
Hours Subtotal		**42**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College and Departmental requirements that may be used to meet General Education requirements.

2

If used for (N) requirement, hours in this block are reduced by CHEM course hours and related courses increased.

3

If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3.

4

If used as an additional (S) course above, hours in this block reduced by 3.

5

Hours meeting the major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Animal Science: Pre-Veterinary/Pre-Medical, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
Select one of the following:		3
STAT 2013	Elementary Statistics (Q) [1]	
STAT 2023	Elementary Statistics for Business and Economics (Q) [1]	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (GH)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1, 5]	
BIOL 1114	Introductory Biology (LN) [1, 5]	
CHEM 1314	Chemistry I (LN) [1]	4
CHEM 1515	Chemistry II (LN) [1]	5
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1, 5]	3
Diversity (D)		
Courses designated (D)		
May be paired with any other designated course		
Global Cultural Competency (G)		
Courses designated (G)		
May be paired with another designated course		
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
Select one of the following:		3
HORT 1013	Principles of Horticultural Science (LN) [5]	
PLNT 1213	Introduction to Plant and Soil Systems (N) [5]	
SOIL 1113	Land, Life and the Environment (N) [5]	
Select four hours from the following:		4
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab [5]	
ANSI 1124	Introduction to the Animal Sciences [5]	
ANSI 2111	Animal and Food Science Professional Development [5]	1
ANSI 2233	The Meat We Eat [5]	3
or ANSI 2253	Meat Animal and Carcass Evaluation	
Written and Oral Communications		
Select one of the following: [5]		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
ENGL 3323	Technical Writing [3]	
BCOM 3113	Written Communication	
Select one of the following: [4, 5]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
ANSI 3423	Animal Genetics [5]	3
ANSI 3433	Animal Breeding [5]	3
ANSI 3444	Animal Reproduction [5]	4
ANSI 3543	Principles of Animal Nutrition [5]	3
ANSI 3653	Applied Animal Nutrition [5]	3
Hours Subtotal		**34**
Major Requirements		
Core Courses		
ANSI 3414	Form and Function of Livestock and Poultry	4
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
BIOC 3653	Survey of Biochemistry	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2

CHEM 3013	Survey of Organic Chemistry	3
Related Courses		
Select Alternative 1 or 2: (p. 2557)		21
Hours Subtotal		**46**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College and Departmental requirements that may be used to meet General Education requirements.

2

If used for (N) requirement, hours in this block are reduced by CHEM course hours and related courses increased.

3

If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3.

4

If used as (S) course above, hours in this block reduced by 3.

5

Hours meeting the major common core.

Alternatives

Alternative 1

First 2 Semesters in the College of Veterinary Medicine (21 hours).

Alternative 2

Code	Title	Hours
ANSI 4863	Capstone for Animal Agriculture	3
Select 6 hours from the following:		6
ANSI 4023	Poultry Science	
ANSI 4203	Rangeland and Pasture Utilization	
ANSI 4423	Horse Science	
ANSI 4523	Pet and Companion Animal Management	
ANSI 4543	Dairy Cattle Science	
ANSI 4553	Sheep Science	
ANSI 4613	Beef Cow-Calf Management	
ANSI 4633	Stocker and Feedlot Cattle Management	
ANSI 4643	Swine Science	
ANSI 4703	Equine Enterprise Management	
ANSI 4713	Beef Seedstock Management and Sales	
ANSI 4803	Animal Growth and Performance	
ANSI 4843	Applications of Biotechnology in Animal Science	
Select 3 hours from the following courses:		3
ANSI 3310	Advanced Competitive Evaluation	
ANSI 3312	Advanced Meat Animal Evaluation	
ANSI 3322	Applied Meat Animal Selection	
ANSI 3410	Peer-Led Team Learning in Animal Science	
ANSI 3420	Undergraduate Research in Animal and Food Science	
ANSI 4910	Animal Industry Internship	
AG 3080	International Experience	
Select 9 hours from any ANSI, BIOL, CHEM, MICR courses or Ferguson College of Agriculture		9

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Animal Science: Production and Operations, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
Select one of the following:		3
STAT 2013	Elementary Statistics (Q) [1]	
STAT 2023	Elementary Statistics for Business and Economics (Q) [1]	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN)	
Any course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [5]	1
Select one of the following: [5]		3
HORT 1013	Principles of Horticultural Science (LN) [5]	
PLNT 1213	Introduction to Plant and Soil Systems (N) [5]	
SOIL 1113	Land, Life and the Environment (N) [5]	
SOIL 2124	Fundamentals of Soil Science (N) [5]	
Select four hours from the following:		4
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab [5]	
ANSI 1124	Introduction to the Animal Sciences [5]	
ANSI 2111	Animal and Food Science Professional Development [5]	1
ANSI 2253	Meat Animal and Carcass Evaluation [5]	3
or ANSI 2233	The Meat We Eat	
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Written and Oral Communications		
Select 3 hours of the following courses:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [5]	
ENGL 3323	Technical Writing [3]	
BCOM 3113	Written Communication [5]	
Select one of the following: [4]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [5]	
SPCH 2713	Introduction to Speech Communication (S) [5]	
SPCH 3733	Elements of Persuasion (S) [5]	
ANSI 3423	Animal Genetics [5]	3
ANSI 3433	Animal Breeding [5]	3
ANSI 3444	Animal Reproduction [5]	4
ANSI 3543	Principles of Animal Nutrition [5]	3
ANSI 3653	Applied Animal Nutrition [5]	3
Hours Subtotal		**38**
Major Requirements		
Core Courses		
ANSI 2112	Live Animal Evaluation	2
ANSI 3414	Form and Function of Livestock and Poultry	4
ANSI 3651	Applied Animal Nutrition Lab	1
ANSI 4863	Capstone for Animal Agriculture	3

Select 6 hours from the following:		6
ANSI 3123	Livestock Health and Diseases	
ANSI 3333	Meat Science	
ANSI 3533	Equine Management and Production	
ANSI 3623	Livestock Behavior and Environmental Interactions	
ANSI 3753	Basic Nutrition for Pets	
Select 9 hours from the following:		9
ANSI 4023	Poultry Science	
ANSI 4203	Rangeland and Pasture Utilization	
ANSI 4423	Horse Science	
ANSI 4523	Pet and Companion Animal Management	
ANSI 4543	Dairy Cattle Science	
ANSI 4553	Sheep Science	
ANSI 4613	Beef Cow-Calf Management	
ANSI 4633	Stocker and Feedlot Cattle Management	
ANSI 4643	Swine Science	
ANSI 4703	Equine Enterprise Management	
ANSI 4713	Beef Seedstock Management and Sales	
ANSI 4803	Animal Growth and Performance	
Additional Core Courses		
Select 3 hours from the following:		3
ANSI 3310	Advanced Competitive Evaluation	
ANSI 3312	Advanced Meat Animal Evaluation	
ANSI 3322	Applied Meat Animal Selection	
ANSI 3410	Peer-Led Team Learning in Animal Science	
ANSI 3420	Undergraduate Research in Animal and Food Science	
ANSI 4910	Animal Industry Internship	
AG 3080	International Experience	
ENTO 3003	Livestock Entomology	3
SOIL 2124	Fundamentals of Soil Science (N)	4
Related Courses		
Selected 7 hours from any ANSI course or from Ferguson College of Agriculture		7
Hours Subtotal		**42**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College and Departmental requirements that may be used to meet General Education requirements.

2

If used for (N) requirement, hours in this block are reduced by CHEM course hours and related courses increased.

3

If ENGL 3323 is substituted for ENGL 1213 above, hours in this block are reduced by 3.

4

If used as an additional (S) course above, hours in this block reduced by 3.

5

Hours meeting the major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Equine Enterprise Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 17

Code	Title	Hours
ACCT 2003	Survey of Accounting	3
ANSI 4423	Horse Science	3
ANSI 4703	Equine Enterprise Management	3
Select one AGEC course from the following:		3
AGEC 3323	Agricultural Product Marketing and Sales	
AGEC 3423	Farm and Agribusiness Management	
AGEC 3713	Agricultural Law	
Select five credit hours from the following:		5
ANSI 1401	Equine Behavior and Handling	
ANSI 3222	Advanced Equine Evaluation	
ANSI 3310	Advanced Competitive Evaluation	
ANSI 3402	Equine Training Methods	
ANSI 3533	Equine Management and Production	
ANSI 3633	Equine Sales Preparation	
ANSI 3643	Equine Breeding and Foaling	
ANSI 4900	Special Problems	
ANSI 4910	Animal Industry Internship [1]	
Total Hours		**17**

1

Equine-Oriented

For additional information on this program, please contact Dr. Steven Cooper, Department of Animal Science, 201j Animal Science Building, 405-744-9291.

Food Safety, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Required Courses		
FDSC 3123	HACCP in the Food Industry	3
FDSC 3154	Food Microbiology	4
Guided Electives		
Select 11 hours from the following:		11
FDSC 1133	Fundamentals of Food Science	
FDSC 3133	Plant Sanitation for Food Processing Operations	
FDSC 4113	Internal Audit and Advanced HACCP	
FDSC 4143	Food Safety Modernization Act	
FDSC 4153	Advanced Food Microbiology	
FDSC 4233	Food Safety Audit Schemes	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4910	Food Industry Internship	
Total Hours		**18**

Academic Requirements:

- Student must maintain a grade-point-average of 2.0 over all courses applicable to this certificate.

Food Science (FDSC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 20

Code	Title	Hours
Minor Requirements		
FDSC 1133	Fundamentals of Food Science	3
Select 17 credits of the following:		17
ANSI 3543	Principles of Animal Nutrition	
or NSCI 4123	Human Nutrition and Metabolism I	
AST 4123	Principles of Food Engineering	
FDSC 2233	The Meat We Eat	
FDSC 2253	Meat Animal and Carcass Evaluation	
FDSC 3113	Quality Control	
FDSC 3123	HACCP in the Food Industry	
FDSC 3133	Plant Sanitation for Food Processing Operations	
FDSC 3154	Food Microbiology	
FDSC 3232	Advanced Meat Evaluation	
FDSC 3310	Advanced Competitive Evaluation	
FDSC 3333	Meat Science	
FDSC 3373	Food Chemistry I	
FDSC 3603	Processing Dairy Foods	
FDSC 4113	Internal Audit and Advanced HACCP	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4333	Processed Meat	
FDSC 4763	Analysis of Food Products	
FDSC 4910	Food Industry Internship [1]	
Total Hours		**20**

1

Credits in FDSC 3310 Advanced Competitive Evaluation and FDSC 4910 Food Industry Internship may be used for this minor only if they involve activities approved by the Food Science Advisor in advance.

Other Requirements

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Food Science, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
or MATH 1483	Mathematical Functions and Their Uses (Q)	
STAT 2013	Elementary Statistics (Q) [1]	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Any course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ANSI 2111	Animal and Food Science Professional Development	1
ANSI 2233	The Meat We Eat	3
or ANSI 2253	Meat Animal and Carcass Evaluation	
FDSC 1133	Fundamentals of Food Science	3
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Select one of the following:		3
ENVR 1113	Elements of Environmental Science (N)	
HORT 1013	Principles of Horticultural Science (LN)	
BIOC 2344	Chemistry and Applications of Biomolecules	
PLNT 1213	Introduction to Plant and Soil Systems (N)	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
ENGL 3323	Technical Writing [3]	
BCOM 3113	Written Communication	
Select one of the following: [4]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
Hours Subtotal		**21**
Major Requirements		
Core Courses		
ANSI 4863	Capstone for Animal Agriculture	3
FDSC 3123	HACCP in the Food Industry	3
FDSC 3154	Food Microbiology	4
FDSC 3373	Food Chemistry I	3
FDSC 4143	Food Safety Modernization Act	3
FDSC 4763	Analysis of Food Products	3
Additional Core		
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
NSCI 3543	Food and the Human Environment (GS)	3
or ANSI 3543	Principles of Animal Nutrition	
Select one of the following Emphasis areas:		21
Safety Emphasis		

FDSC 3133	Plant Sanitation for Food Processing Operations	
FDSC 4113	Internal Audit and Advanced HACCP	
FDSC 4153	Advanced Food Microbiology	
AGEC 3713	Agricultural Law	
9 hours of 4000 level FDSC		
Meats Emphasis		
ANSI 1124	Introduction to the Animal Sciences	
ANSI 3232	Advanced Meat Evaluation	
ANSI 3333	Meat Science	
FDSC 4333	Processed Meat	
9 hours of 4000 level FDSC		
Industry Emphasis		
9 hours of 3000 level FDSC		
12 hours of 4000 level FDSC		
Science Emphasis		
FDSC 4113	Internal Audit and Advanced HACCP	
PHYS 1014	Descriptive Physics (N)	
CHEM 3013	Survey of Organic Chemistry	
CHEM 3012	Survey of Organic Chemistry Laboratory	
BIOC 3653	Survey of Biochemistry	
3 hours of 3000 level FDSC		
3 hours of 4000 level FDSC		
Related Courses		
Select 6 hours from any courses from Ferguson College of Agriculture, Spears School of Business, MMJ or SC		6
Hours Subtotal		**59**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet GE requirements.

2

If used for (N) requirement, hours in this block are reduced by CHEM course hours.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as an additional (S) course above, hours in this block reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biochemistry and Molecular Biology

Biochemistry, the central scientific discipline linking the chemical, physical and biological sciences, exerts a profound influence on the progress of medicine, agriculture and industry. By applying concepts and methods of chemistry and physics to the fundamental problems of biology, biochemists have made great progress in their effort to understand the chemistry of living organisms. Major discoveries in the biochemistry of genetic material provided the tools of molecular biology that are essential to contemporary life sciences research and are used to build the biotechnology industry.

Biochemists and molecular biologists are concerned with living things and thus must be fluent in the concepts of biological sciences. Since a biochemist's tools include many techniques derived from the physical sciences, they must receive sound education in mathematics, physics and chemistry. Our academic programs are designed to integrate these disciplines, preparing students for a wide range of professional careers.

Challenging positions for well-trained biochemists and molecular biologists are available in colleges and universities, state and federal laboratories, research institutes, medical centers and in an increasing number of industrial organizations, particularly in the pharmaceutical and food industries. Biochemists are involved with research on the chemistry of processes occurring in plants, animals and various microorganisms, and with the discovery and development of antibiotics, vitamins, hormones, enzymes, insecticides and molecular genetics techniques.

The Department of Biochemistry and Molecular Biology administers two BS degree options in Biochemistry and Molecular Biology through the Ferguson College of Agriculture. In 2023, these two degrees became accredited by the American Society of Biochemistry and Molecular Biology (ASBMB). This provides students taking these degree options an opportunity to take the ASBMB certification exam. An honors program is also available in undergraduate degree plans. Also available is a 4+1 Year Masters by Coursework program. The undergraduate curriculum provides a broad background in chemistry and the biological sciences and permits flexibility to meet particular interests of the student. Courses in biochemistry are based on general, organic, and analytical chemistry. The undergraduate curriculum also provides students with sufficient background in the basic sciences of mathematics, physics, chemistry, and biology needed to be accepted in graduate study in most disciplines of contemporary science and is excellent for students seeking to enter postgraduate health programs (e.g. medicine, veterinary sciences, dentistry, physician assistant, and pharmacy). The Department's research activities provide opportunities for part-time employment of undergraduate majors to improve their professional competence.

Minor in Biochemistry and Molecular Biology

This minor is designed to give students a firm background in the fundamentals of Biochemistry and Molecular Biology and to develop critical thinking skills for the interpretation of new findings in these disciplines. Students will gain primary knowledge in modern biochemistry through two lecture courses (BIOC 3713 (http://catalog.okstate.edu/search/?P=BIOC%203713) Biochemistry I and BIOC 3813 (http://catalog.okstate.edu/search/?P=BIOC%203813) Biochemistry II). Hands-on training utilizing the experimental tools of these disciplines will be emphasized during the Biochemistry and Molecular Biology laboratory course (BIOC 3723 (http://catalog.okstate.edu/search/?P=BIOC%203723) Biochemistry and Molecular Biology Laboratory). The knowledge gained by this minor gives a science educator, a laboratory technician, an industrial employee, or a life sciences researcher the ability to apply these disciplines. This minor will also demonstrate competency in these disciplines to post-graduate health institutions.

Courses

BIOC 1113 Drugs, Medications and Human Well-Being (N)
Description: Influence of medications and illegal drugs on our health. Explores the medications used to treat cancers, diabetes, microbial infections, heart and mental diseases. Abused drugs, such as alcohol, caffeine, opioids and cannabis and their effects are also covered. Course is designed for non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Natural Science Reasoning

BIOC 1990 Freshman Research in Biochemistry and Molecular Biology
Description: An introduction to biochemical research through guided work on a relevant experimental problem. Offered for variable credit, 1-2 credits, max 2.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 2101 The Experiments Behind the Facts of Real Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1515.
Description: Introduction to research though the study of primary research papers.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2202 Medicine and Molecules
Description: Examination of specific diseases at all scales, from the biology of the causal agent to global impacts. The molecular biology of the agent, interactions with the human body, and the etiology, epidemiology, history and current state of the disease, ethical considerations, and prospects and cures.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2344 Chemistry and Applications of Biomolecules
Prerequisites: CHEM 1225 or CHEM 1515.
Description: A descriptive survey of organic functional groups and biomolecules. Mode of formation and function of these molecules in microorganisms, plants and animals as they relate to biotechnology, environmental sciences and health related issues. A terminal course for students in applied biological science education. Not recommended for pre-professional students or students planning graduate study in biological sciences.
Credit hours: 4
Contact hours: Lecture: 3 Contact: 4 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Biochem & Molecular Biology

BIOC 2352 Fundamental Biochemistry
Prerequisites: BIOC 1114 and CHEM 1515.
Description: Connect knowledge of organic chemistry to biochemistry to better understand and appreciate the chemical principles in forming bimolecular structures and functions.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Honors Credit

BIOC 3003 Hypothesis-Driven Undergraduate Research
Prerequisites: Consent of instructor.
Description: Directed research projects with faculty members in biochemistry and molecular biology. Identify a research question, develop a hypothesis, experimental approach, perform the experiments, and summarize their results in oral and written forms.
Credit hours: 3
Contact hours: Lab: 6 Contact: 6
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 3153 Synthetic Biology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Engineering of living systems at the molecular, cellular, and organismal levels: Origin of cellular life; reading and writing DNA; enzyme evolution; metabolic engineering. Applications to current and future biotechnologies in agriculture and medicine: Food and drug synthesis; biofuels; vaccines. This cross-listed course is designed to satisfy upper division elective requirements for students majoring in biochemistry or microbiology. Same course as MICR 3053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3162 Synthetic Biology Laboratory Course
Prerequisites: BIOL 1114 or BIOL 1111 and BIOL 1113 and CHEM 1515
Description: Computer and laboratory excises in synthetic biology including design of genetic circuits, CRISPR-Cas systems. Students will create and test these designs using industry-standard molecular biology techniques. Students are strongly encouraged to co-enroll in BIOC/MICR 3153 using the appropriate prefix according to their major. Same course as MICR 3162.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 3223 Physical Chemistry for Biologists
Prerequisites: CHEM 1515, (MATH 2123 or MATH 2144), and (PHYS 1114 or PHYS 2014) or consent of instructor.
Description: Classical and statistical thermodynamics with applications to pure systems, solutions and electrochemistry; transport; chemical and enzyme kinetics, quantum chemistry of structure and chemical bond; and spectroscopy all with emphasis on biological applications. Previously offered as BIOC 4224 and BIOC 3224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3523 Biochemistry of Disease at the Cellular Level
Prerequisites: BIOC 3653 or BIOC 3713 and MICR 3033 and BIOL 3023 or ANSI 3423 or PLNT 3554 or consent of instructor.
Description: The biochemistry of fundamental processes in normal and disease states of eukaryotic cells. Explores the cell and molecular, and biochemical mechanisms of intracellular protein trafficking, cytoskeleton, cell adhesion, mitosis, cell cycle, cytokinesis, cellular stress responses, and apoptosis and in a variety of diseases including cancers, progeria (premature aging), Alzheimer's, Amyotrophic lateral sclerosis (ALS), high cholesterol, and diabetes. May not be used for Degree Credit with BIOC 5523. Previously offered as BIOC 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3653 Survey of Biochemistry
Prerequisites: CHEM 3013 or CHEM 3053.
Description: An introduction to the chemistry of living systems. Chemical properties of the constituents of living organisms. Modes of formation, reactions and function of these compounds in microorganisms, plants and animals. Intended for non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3713 Biochemistry I
Prerequisites: CHEM 3053.
Description: Biochemistry of nucleic acids, proteins, amino acids, carbohydrates, and lipids with an emphasis on the kinetics, thermodynamics, catalytic and regulatory strategies of biochemical reactions and bioenergetics. Designed for biochemistry majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3723 Biochemistry and Molecular Biology Laboratory
Prerequisites: BIOC 3653 or BIOC 3713 or concurrent enrollment.
Description: Integrated lecture-laboratory course on fundamental theories and techniques in biochemical, forensic, and clinical research. Hands-on experience in mass spectrometry, DNA analysis, metabolic assays, kinetic assays, and protein purification. Previously offered as BIOC 3720.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biochem & Molecular Biology

BIOC 3813 Biochemistry II
Prerequisites: BIOC 3713.
Description: Continuation of Biochemistry I with focus on metabolic pathways, cycles, and control mechanisms. This course will cover bioenergetics and metabolism of carbohydrates, lipids, amino acids and nucleotides. Designed for biochemistry majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 3890 Advance Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology
General Education and other Course Attributes: Honors Credit

BIOC 4013 Biotechnology Development and Implementation
Prerequisites: BIOC 3653 or BIOC 3713 or consent of instructor.
Description: An overview of emerging biotechnology in medicine and agriculture including gene therapy, immunotherapy, antibody-drug conjugates, and genome-editing technologies. Also includes an introduction to the global biotechnology industry, idea generation, intellectual property protection, finance, and regulation and policies within the industry. May not be used for degree credit with BIOC 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4023 Molecular Biology and Stress Response of Plants
Prerequisites: BIOL 1113 or BIOC 3713 or PLNT 3554
Description: Topics cover the cutting-edge research areas including second messengers, phytohormones, signal transduction, microbiome, plant-microbe interactions, plant responses to climate change with focus on plant molecular biology and plant responses to biotic and abiotic stresses and their application in solving agricultural problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4113 Molecular Biology
Prerequisites: BIOC 3653 or BIOC 3713 and BIOL 3023 or ANSI 3423 or PLNT 3554.
Description: Applications of biochemistry, molecular biology and genetic engineering with emphasis on protein structure and function, regulation of cell function, metabolism and disease processes. May not be used for Degree Credit with BIOC 5113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4213 Disease and Metabolism
Prerequisites: BIOC 3653 or BIOC 3713 or concurrent enrollment
Description: Introduction to the causes, preventions and treatments for human diseases including obesity, diabetes, atherosclerosis, cancer and aging. Emphasis on the pathogenesis and the cross-talks between metabolic pathways at system level. May not be used for degree credit with BIOC 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4313 Cancer Immunology and Immunotherapy
Prerequisites: BIOC 3713 or BIOC 3653 or consent of instructor
Description: Interaction between cancers and the immune system and current immune based biotechnology tools for treatments. Basic immunology and cancer biology, interactions between the immune system and cancers and current immunological therapies in cancers. Functioning of the immune system, genesis and development of cancers, and links between these two systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4413 Plant and Soil Microbiomes Can Help Feed the World
Prerequisites: (BIOC 3653 or BIOC 3713) and BIOL 3023 or consent of instructor
Description: Introduction and profiling of plant and soil microbiomes; identifying microbes with agronomic traits that improve crop productivity and support food production; nutrient cycling; and bioremediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4723 Introduction to Bioinformatics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and MATH 1513.
Description: Providing an introduction to programming for those intending to work with large biological datasets. This course covers the basics of Shell programming, scripting languages and examples of using software and packages. May not be used for Degree Credit with BIOC 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4883 Senior Seminar in Biochemistry
Prerequisites: BIOC 3813 or concurrent enrollment or consent of instructor and senior standing.
Description: A senior capstone course for the development of scientific verbal and written communications and assessment of cumulative abilities. Focus is on problem solving, group discussion, primary literature review, oral presentation, and writing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 4990 Undergraduate Research
Description: Training in independent work, study of relevant literature and experimental investigation of an assigned problem. Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 5000 Research
Description: For MS thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 5002 Research Compliance and Biochemistry Graduate Colloquium
Prerequisites: Graduate standing.
Description: Introduction to graduate research. Policies for laboratory safety, research compliance, and ethical conduct of scientific research are presented.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5013 Biotechnology Development and Implementation
Prerequisites: (BIOC 3653 or BIOC 3713) and BIOL 3023 or consent of instructor.
Description: An overview of emerging biotechnology in medicine and agriculture including gene therapy, immunotherapy, antibody-drug conjugates, and genome-editing technologies. Also includes an introduction to the global biotechnology industry, idea generation, intellectual property protection, finance, and regulation and policies within this industry. May not be used for degree credit with BIOC 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5102 Molecular Genetics
Prerequisites: BIOC 3653 or MICR 3033 and one course in genetics or consent of instructor.
Description: An introduction to molecular genetics on the graduate level. Same course as GENE 5102.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5112 Articulation of Research Logic
Prerequisites: BIOC 5753 or equivalent or permission of instructor.
Description: Techniques for effective communication of scientific reasoning, logic, and critical thinking. Explanation of rationale, hypotheses, and experimental design. Public presentations as logical arguments. The course focuses on biomolecular systems.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5113 Molecular Biology
Prerequisites: BIOC 3653 or BIOC 3713 and BIOL 3023 or ANSI 3423 or PLNT 3554.
Description: Applications of biochemistry, molecular biology and genetic engineering with emphasis on protein structure and function, regulation of cell function, metabolism and disease processes. May not be used for degree credit with BIOC 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5120 Biochemistry and Molecular Biology Graduate Research Colloquium
Prerequisites: Graduate standing.
Description: Students will provide presentations to demonstrate their mastery of research literature, new research results, explanations for research roadblocks, and their ability to synthesize new knowledge and draw conclusions. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5213 Disease and Metabolism
Prerequisites: Graduate standing.
Description: Introduction to the causes, preventions and treatments for human diseases including obesity, diabetes, atherosclerosis, cancer and aging. Emphasis on the pathogenesis and the cross-talks between metabolic pathways at system level. May not be used for degree credit with BIOC 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5313 Cancer Immunology and Immunotherapy
Prerequisites: BIOC 3713 or BIOC 3653 or consent of instructor
Description: Interaction between cancers and the immune system and current immune based biotechnology tools for treatments. Basic immunology and cancer biology, interactions between the immune system and cancers and current immunological therapies in cancers. Functioning of the immune system, genesis and development of cancers, and links between these two systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5523 Biochemistry of the Cell
Prerequisites: BIOC 3653 or BIOC 3713 and MICR 3033 and BIOL 3023 or ANSI 3423 or PLNT 3554 or consent of instructor.
Description: The biochemistry of fundamental processes in normal and disease states of eukaryotic cells. Primary literature based experimental approaches to the mechanisms of intracellular protein trafficking, cytoskeleton, cell adhesion, mitosis, cell cycle, cytokinesis, and apoptosis. May not be used for degree credit with BIOC 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5553 Agricultural Biochemistry
Prerequisites: CHEM 3153 or equivalent.
Description: Organism function at the biochemical level and how this relates to the more complex biological systems of plants and animals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5723 Introduction to Bioinformatics
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and MATH 1513.
Description: Providing an introduction to programming for those intending to work with large biological datasets. This course covers the basics of Shell programming, scripting languages and examples of using software and packages. May not be used for degree credit with BIOC 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5753 Biochemical Principles
Prerequisites: CHEM 3153 or equivalent.
Description: Chemistry of cellular constituents; introduction to the chemical processes in living systems. The first in a series of courses for graduate students in biochemistry and related fields.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5824 Biochemical Laboratory Methods
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Lecture and laboratory course in basic biochemistry and molecular biology methods for separation and analysis of biological materials, including chromatography, electrophoresis, centrifugation, use of radioisotopes, molecular cloning and DNA sequencing.
Credit hours: 4
Contact hours: Lab: 8 Contact: 8
Levels: Graduate
Schedule types: Lab
Department/School: Biochem & Molecular Biology

BIOC 5853 Molecular and Integrative Metabolism
Prerequisites: BIOC 5753 or BIOC 4113.
Description: Reaction sequences and cycles in the enzymatic transformations of fats, proteins and carbohydrates; energy transfer, biosynthesis and integration in the metabolic pathways.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 5930 Advanced Biochemical Techniques
Prerequisites: BIOC 5753, BIOC 5824 or concurrent registration, and consent of instructor.
Description: Lecture and laboratory course in advanced research techniques, designed to supplement BIOC 5824. In subsequent semesters, individual research problems pursued in laboratories of department faculty for six weeks and one credit hour each. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6000 Research
Description: For PhD dissertation. Offered for variable credit, 1-15 credit hours, maximum of 60 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6110 Seminar
Description: Maximum 2 for PhD or 1 for MS candidates. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6663 Molecular Plant-Microbe Interactions
Prerequisites: PLP 3343 and BIOC 3653.
Description: Focused on the biochemistry, molecular biology and molecular genetics of pathogenic and symbiotic interactions between microbes and plants to explain the mechanisms by which microbe's infection and activation of plant immunity and symbiosis signaling pathways. Same course as PLP 5723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6723 Signal Transduction
Description: Classical signal transduction mechanisms including MAP kinase signaling cascades, Protein kinase A, Protein kinase C pathways, JAK/STAT pathways, calcium signaling, the cell cycle, programmed cell death, and cell signaling in cancer. Strong focus on the primary literature and experimental strategies used in modern cell biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6733 Functional Genomics
Prerequisites: BIOC 3653 or BIOC 3713 and BIOC 3813 or BIOC 5753 or consent of instructor.
Description: Principles and techniques of genomics technologies and their applications in basic science and applied animal and plant research. Genome sequencing, variation detection, transcriptomics, proteomics, metabolomics, metagenomics, systems biology, forward and reverse genetics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6740 Physical Biochemistry
Prerequisites: One semester each of biochemistry, calculus and physical chemistry.
Description: Two independent modules dealing with applications of physical chemistry and math to biological phenomena: 1) numerical analyses and selected spectroscopic methods, and 2) thermodynamics and transport properties. Modules may be taken together as two credits or individually for one credit. Offered for variable credit, 1-2 credit hours, maximum of 2 credit hours.
Credit hours: 1-2
Contact hours: Contact: 1-2 Other: 1-2
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6753 Epigenetics
Prerequisites: BIOC 5102 or BIOC 5753 or consent of instructor.
Description: Principles underlying heritable changes in gene expression caused by mechanisms other than changes in the DNA sequence. The roles of chromatin structure, DNA and histone modification, and small RNAs in plant and animal development and disease. Applications of epigenetic-based therapeutics and the use of RNA interference in plants and animals.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6763 Nucleic Acids and Protein Synthesis
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Structure and biological function of nucleic acid containing structures with emphasis on recombinant DNA methodologies, information content, nucleic acid-protein interaction, regulation and rearrangement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6773 Protein Structure and Enzyme Function
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Theory of and methods for studying the physical and chemical basis of protein structure and function; and the enzyme catalysis, including kinetics, chemical modification and model studies. Examples from current literature.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6783 Biomembranes and Bioenergetics
Prerequisites: BIOC 5853 or consent of instructor.
Description: Components, organization and biosynthesis of plasma, mitochondrial and photosynthetic membranes, emphasizing structure-function relationships. Mechanism of metabolites, protons and electrons transport. Energy conservation in bioenergetic apparatus such as mitochondria, chloroplasts or bacterial chromatophores.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6793 Plant Biochemistry
Prerequisites: BIOC 4113 or BIOC 5753.
Description: Biochemistry of processes and structures of special importance to plants, such as photosynthesis, cell walls, nitrogen fixation, secondary metabolites and storage proteins. Previously offered as BIOC 6792.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

BIOC 6820 Selected Topics in Biochemistry
Prerequisites: BIOC 5853.
Description: Recent developments in biochemistry. Subject matter varies from semester to semester; students should inquire at the department office before enrolling. Same course as ITOX 6820. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Biochem & Molecular Biology

BIOC 6823 Quantitative Methods in Omics
Prerequisites: BIOC 1114 and MATH 1513.
Description: Statistical, computational and algorithmic components applied in genomics technologies including theories in quantitative genetics in QTL mapping and Genome-wide Association studies (GWAS), differential analysis based on read-count information and multi-dimensional module/network analysis, graph theories, hidden Markov Models and deep learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biochem & Molecular Biology

Undergraduate Programs

- Biochemistry and Molecular Biology, BSAG (p. 2574)
- Biochemistry and Molecular Biology: Biotechnology, BSAG (p. 2576)
- Biochemistry and Molecular Biology: Pre-Medical or Pre-Veterinary Science, BSAG (p. 2578)

Graduate Programs

Many career opportunities in biochemistry require advanced coursework, and so part of the Department of Biochemistry and Molecular Biology's curriculum is focused on its graduate program leading to the MS or PhD degree. This graduate program is also an integral part of the extensive basic research activities supported by the Oklahoma Agricultural Experiment Station.

Prerequisites

Students with a Bachelor's degree in Biochemistry, Molecular Biology, Chemistry, or with strong backgrounds in other biological or physical science disciplines are eligible to apply to the graduate programs in Biochemistry and Molecular Biology. Individuals should have at least two semesters of organic chemistry and one semester of biochemistry, molecular biology, calculus, analytical and physical chemistry. Students may be required to take appropriate undergraduate courses if major deficiencies are identified.

Degree Requirements

A more detailed description of the graduate study program in Biochemistry and Molecular Biology is available on the Department's website: https://agriculture.okstate.edu/departments-programs/biochemistry/graduate-program/. The requirements listed below complement the general graduate requirements described in the "Graduate College" section of the Catalog. All Biochemistry and Molecular Biology graduate students are expected to attend and participate in the Department's Graduate Student Association Journal Club and the Department's Seminar Series throughout the academic year.

The Master of Science Degree

Twenty-four (24) credit hours of formal graduate courses are required, including:

Code	Title	Hours
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	2
BIOC 5112	Articulation of Research Logic	2

BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium	1
BIOC 5753	Biochemical Principles	3
BIOC 5853	Molecular and Integrative Metabolism	3
BIOC 5930	Advanced Biochemical Techniques	1-4

In addition, a student must present an acceptable research thesis (six hours of BIOC 5000 (http://catalog.okstate.edu/search/?P=BIOC%205000) Research) and pass a final oral examination covering their thesis work and related material. Research advisors are selected at the end of the student's first semester.

A non-thesis Master of Science degree is also available. It does not require a research thesis but requires a report and extensive technical training in the laboratory. The non-thesis MS plan requires thirty (30) credit hours of coursework and two (2) hours of research. The non-thesis MS is not recommended for students wishing to pursue a PhD.

A formal "Plan of Study" with the credit hours of graduate coursework and research listed above must be approved by the student's advisory committee and submitted to the OSU Graduate College before completing 17 credit hours of graduate study.

The Doctor of Philosophy Degree

The PhD program course requirements are determined with the assistance and approval of the student's advisory committee and are based on whether a BS or MS has previously been earned:

1. a minimum total of (60) graduate credits are required if a student enters the PhD program having earned an MS in a related discipline, with a minimum of 15 credit hours of coursework and a minimum of 15 credit hours of research being required.
2. a minimum total of ninety (90) graduate credits are required if a student enters the PhD program having earned not higher than a BS in a related discipline, with a minimum of 30 credit hours of coursework and 15 credit hours of research being required.

A formal "Plan of Study" with the credit hours of graduate coursework and research listed above must be approved by the student's advisory committee and submitted to the OSU Graduate College before completing 28 credit hours of graduate study.

The student's advisory committee is selected at the end of the student's second semester. All graduate students must maintain a B-average in their graduate coursework. A grade of C in a single graduate course can place the student on academic probation.

The Department offers research experience in a variety of areas. Formal PhD program graduate coursework includes all of the courses listed for the MS degree, at least four of the advanced graduate courses in biochemistry (6000-level) including BIOC 6740 (http://catalog.okstate.edu/search/?P=BIOC%206740) Physical Biochemistry, and additional courses and lab experience appropriate to the student's interests. Each student will take a series of preliminary examinations in their third semester: January if admitted in the fall; or May, if admitted in the Spring.

Each student also presents and defends their research thesis proposal sometime in their 4th-5th semester, and at the end of their program presents their research and defends their dissertation in a final oral examination. The doctoral dissertation must contain a substantial original research contribution to the discipline of biochemistry and molecular biology.

Bioinformatics Graduate Certificate Program

The Department of Biochemistry and Molecular Biology also offers the Bioinformatics Graduate Certificate Program—a multi-disciplinary program that involves faculty in Departments across the University. This program's mission is to train post-baccalaureate students in the techniques required to generate, analyze and interpret complex biologically-derived data sets. The Graduate Certificate in Bioinformatics requires completion of 16 credit hours of coursework eligible for graduate credit. A minimum of 12 credit hours must be at the 5000-level or above. Required courses include 9 credit hours from the core areas of life sciences, statistics and computer sciences. Additional information on this Certificate Program is available online: http://www.bioinformatics.okstate.edu/.

Review Process for Admission

The Department's Graduate Committee reviews all eligible applications for the graduate program in Biochemistry and Molecular Biology. To be eligible for committee review, each applicant must submit an application for admission to the Graduate College, along with transcripts of all academic records, and TOEFL scores if their undergraduate education was in a language other than English. Applicants must submit to the Department three reference letters, a current resume and a statement of purpose.

Minors

- Biochemistry (BIOC), Minor (p. 2573)

Faculty

John E. Gustafson, PhD—Professor and Head
Regents Professors: Robert L. Matts, PhD; Ramanjulu Sunkar, PhD
Professors: Randy D. Allen, PhD; Patricia Canaan, PhD; Junpeng Deng, PhD; Kiran Mysore, PhD
Associate Professors: Charles Chen, PhD; Donald Ruhl, PhD; Kevin Wilson, PhD
Assistant Professors: Yong Cheng, PhD; Kelly Craven, PhD; Feng Feng, PhD; Xia Lei, PhD; Ashley Mattison, PhD
Research Assistant Professors: Naichong Chen, PhD; Kashif Mahmood, PhD; Xuejuan Tan, PhD
Instructor: Judy A. Hall, MS
Adjunct Faculty: Robert L. Burnap, PhD; Kitty Cardwell, PhD; Richard A. Dixon, PhD; Udaya DeSilva, PhD; Darren Hagen, PhD; Haobo Jiang, PhD; Veronique A. Lacombe, PhD; Jerry R. Malayer, PhD; Kenneth L. McNally, PhD; Smita Mohanty, PhD; Rolf A. Prade, PhD; Kay Scheets, PhD; William Schneider, PhD; Lloyd Sumner, PhD; Million Tadege, PhD; Guolong (Glenn) Zhang, PhD
Professors Emeriti: Andrew Mort, PhD**;** Chang-An Yu, PhD; Margaret Essenberg, PhD; Richard Essenberg, PhD; Ulrich Melcher, PhD; Sharon Ford, PhD; Robert Gholson, PhD; Peter Hoyt, PhD; Steve Hartson PhD

Biochemistry (BIOC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 20

Code	Title	Hours
Minor Requirements		
CHEM 1515	Chemistry II (LN)	5
CHEM 3053	Organic Chemistry I	3
CHEM 3153	Organic Chemistry II	3
BIOC 3713	Biochemistry I	3
BIOC 3723	Biochemistry and Molecular Biology Laboratory	3
BIOC 3813	Biochemistry II	3
Total Hours		**20**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Biochemistry and Molecular Biology, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Select 4 hours courses designated N		4
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources Core		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	
SPCH 2713	Introduction to Speech Communication (S) [3]	
SPCH 3733	Elements of Persuasion (S) [3]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
BIOC 1990	Freshman Research in Biochemistry and Molecular Biology	1
BIOC 3723	Biochemistry and Molecular Biology Laboratory	3
BIOC 3813	Biochemistry II	3
BIOC 3223	Physical Chemistry for Biologists	3
or CHEM 3433	Physical Chemistry I	
BIOC 4883	Senior Seminar in Biochemistry	3
BIOC 4990	Undergraduate Research (2 hrs) [4]	2
CHEM 1515	Chemistry II (LN)	5
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2

CHEM 3153	Organic Chemistry II	3
Select one of the following:		3
MATH 2153	Calculus II (Q)	
STAT 2013	Elementary Statistics (Q)	
STAT 4013	Statistical Methods I (Q)	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
or PBIO 1404	Plant Biology (LN)	
Select one of the following:		3
ANSI 3423	Animal Genetics	
BIOL 3023	General Genetics	
PLNT 3554	Plant Genetics and Biotechnology	
Related Courses		
Select a minimum of 9 hours of BIOC or courses related to BIOC, subject to Advisor approval, of the following:		9
BIOC 2202	Medicine and Molecules	
BIOC 2352	Fundamental Biochemistry	
BIOC 3003	Hypothesis-Driven Undergraduate Research	
BIOC 3153	Synthetic Biology	
BIOC 4013	Biotechnology Development and Implementation	
BIOC 4023	Molecular Biology and Stress Response of Plants	
BIOC 4113	Molecular Biology	
BIOC 4213	Disease and Metabolism	
BIOC 3523	Biochemistry of Disease at the Cellular Level	
BIOC 4723	Introduction to Bioinformatics	
BIOC 4990	Undergraduate Research [4]	
Hours Subtotal		**67**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block reduced by 3.

4

Total hours of BIOC 1990 Freshman Research in Biochemistry and Molecular Biology and BIOC 4990 Undergraduate Research may not exceed 10 hours.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biochemistry and Molecular Biology: Biotechnology, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1813	Preparation for Calculus (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
CHEM 1314	Chemistry I (LN)	4
Select two hours of courses designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
From two of the following groups, select one course:		6
Group 1		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3		
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	
or ANSI 1124	Introduction to the Animal Sciences	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4		
NREM 1014	Introduction to Natural History (LN)	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written and Oral Communication		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	
SPCH 2713	Introduction to Speech Communication (S) [3]	
SPCH 3733	Elements of Persuasion (S) [3]	
Hours Subtotal		**13**
Major Requirements		
BIOC 1990	Freshman Research in Biochemistry and Molecular Biology [4]	1
BIOC 2352	Fundamental Biochemistry	2
BIOC 3723	Biochemistry and Molecular Biology Laboratory	3
BIOC 3813	Biochemistry II	3
BIOC 4990	Undergraduate Research [4]	2
BIOC 4113	Molecular Biology	3
BIOC 3153	Synthetic Biology	3
BIOC 4013	Biotechnology Development and Implementation	3
CHEM 1515	Chemistry II (LN) [1]	5
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
Select one of the following:		3
MATH 2123	Calculus for Technology Programs I (Q)	
STAT 2013	Elementary Statistics (Q)	
STAT 4013	Statistical Methods I (Q)	

MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
or PBIO 1404	Plant Biology (LN)	
Select one of the following:		3
ANSI 3423	Animal Genetics	
BIOL 3023	General Genetics	
PLNT 3554	Plant Genetics and Biotechnology	
Related Courses		
Select a minimum of 8 hours of BIOC or courses related to BIOC, subject to Advisor approval, of the following:		8
BIOC 2202	Medicine and Molecules	
BIOC 3003	Hypothesis-Driven Undergraduate Research	
BIOC 4023	Molecular Biology and Stress Response of Plants	
BIOC 4213	Disease and Metabolism	
BIOC 3523	Biochemistry of Disease at the Cellular Level	
BIOC 4723	Introduction to Bioinformatics	
BIOC 3223	Physical Chemistry for Biologists	
or CHEM 3433	Physical Chemistry I	
BIOC 4883	Senior Seminar in Biochemistry	
BIOC 4990	Undergraduate Research [4]	
MICR 3033	Cell and Molecular Biology	
PHYS 1214	College Physics II (LN)	
or PHYS 2114	University Physics II (LN)	
PLNT 4933	Gene Editing and Genetically Modified Crops	
Hours Subtotal		**67**
Electives		
Select 0 hours to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block are reduced by 3.

4

Total hours of BIOC 1990 Freshman Research in Biochemistry and Molecular Biology and BIOC 4990 Undergraduate Research may not exceed 10 hours.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biochemistry and Molecular Biology: Pre-Medical or Pre-Veterinary Science, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q) [1]	4
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
4 hours courses designated N		4
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources Core		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
From two of the following groups, select one course:		6
Group 1:		
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 1113	Elements of Forestry	
Group 2:		
SOIL 1113	Land, Life and the Environment (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Group 3:		
ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	
FDSC 1133	Fundamentals of Food Science	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
Group 4:		
NREM 1014	Introduction to Natural History (LN)	
NREM 3013	Applied Ecology and Conservation	
ENVR 1113	Elements of Environmental Science (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3713	Biochemistry I	
LA 1013	Introduction to Landscape Architecture	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [3]	
SPCH 2713	Introduction to Speech Communication (S) [3]	
SPCH 3733	Elements of Persuasion (S) [3]	
Hours Subtotal		**13**
Major Requirements		
Core Courses		
BIOC 3723	Biochemistry and Molecular Biology Laboratory	3
BIOC 3813	Biochemistry II	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
or PBIO 1404	Plant Biology (LN)	
CHEM 1515	Chemistry II (LN)	5
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2

CHEM 3153	Organic Chemistry II	3
Select one of the following:		3
MATH 2153	Calculus II (Q)	
STAT 2013	Elementary Statistics (Q)	
STAT 4013	Statistical Methods I (Q)	
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
Related Courses		
Option:		
Select an option (p. 2579)		20
Hours Subtotal		**63**
Electives		
Select 4 hours or hours to complete required total for degree.		4
Hours Subtotal		**4**
Total Hours		**120**

[1]

College & Departmental requirements that may be used to meet General Education requirements.

[2]

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

[3]

If used as (S) course above, hours in this block reduced by 3.

Options

Option 1

With the approval of the advisor, department head, and dean, hours of basic sciences from an accredited chiropractic, dental medial, optometry, osteopathic, pharmacy, podiatry, or veterinary medical school to total 57 hours.

Option 2

Code	Title	Hours
Select one of the following:		3
BIOL 3023	General Genetics	
ANSI 3423	Animal Genetics	
PLNT 3554	Plant Genetics and Biotechnology	
Select one of the following:		4
BIOL 3204	Physiology	
ENTO 4044	Insect Morphology and Physiology	
PBIO 4463	Plant Physiology	
Select a minimum of 13 hours of BIOC or courses related to BIOC, subject to Advisor approval, of the following:		13
ANSI 3543	Principles of Animal Nutrition	
BIOC 2202	Medicine and Molecules	
BIOC 2352	Fundamental Biochemistry	
BIOC 3003	Hypothesis-Driven Undergraduate Research	
BIOC 3153	Synthetic Biology	
BIOC 3223	Physical Chemistry for Biologists	
or CHEM 3433	Physical Chemistry I	
BIOC 3523	Biochemistry of Disease at the Cellular Level	
BIOC 4013	Biotechnology Development and Implementation	
BIOC 4023	Molecular Biology and Stress Response of Plants	
BIOC 4113	Molecular Biology	
BIOC 4213	Disease and Metabolism	
BIOC 4723	Introduction to Bioinformatics	
BIOC 4883	Senior Seminar in Biochemistry	
BIOC 4990	Undergraduate Research	
Total Hours		**20**

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems and Agricultural Engineering

The Department of Biosystems and Agricultural Engineering offers degrees within the Ferguson College of Agriculture and the College of Engineering, Architecture and Technology (CEAT). The department offers two undergraduate majors (Biosystems Engineering and Agricultural Systems Technology) and both masters and doctoral programs in biosystems engineering. The department's undergraduate and graduate biosystems engineering degrees are awarded through CEAT. The agricultural systems technology degree is awarded through the Ferguson College. The undergraduate biosystems engineering degree is accredited by the Engineering Accreditation Commission of ABET (see www.abet.org) under criteria for biological engineering and similarly named programs.

Biosystems engineers and agricultural systems technology professionals create and adapt engineering knowledge and technologies for the efficient and effective production, processing, storage, handling and distribution of food, feed, fiber, and other biological products, while at the same time providing for a quality environment and preserving and protecting natural resources. Our graduates directly address problems and opportunities related to food, water, energy, and the environment—all of which are critical to the quality of life in our society and align with the mission of the Division of Agricultural Sciences and Natural Resources.

Undergraduate Programs

The Biosystems Engineering undergraduate degree program is a comprehensive engineering program that includes math, physical and biological sciences, basic engineering science and specialty areas. The first two years focus on the underlying biological, physical, chemical, and mathematical principles of engineering, supplemented by appropriate general education courses in English, social sciences, and humanities. The next two years build systematically upon the scientific knowledge acquired in the early courses and students can focus in specific option areas. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. The program culminates in senior year design courses in which students integrate the analysis, synthesis, and other abilities they have developed throughout the earlier portions of their study into a capstone experience. Subject-matter specialization is provided through the following five undergraduate option areas: general, bioprocessing and food processing, environment and natural resources, machine systems and pre-medical.

The Biosystems Engineering undergraduate program verifies that our students possess core engineering knowledge and capability by requiring students to take the Fundamentals of Engineering exam, which is an important step toward becoming a professional engineer. Candidates for the BS degree in Biosystems Engineering must take the Fundamentals of Engineering exam prior to receiving their degree.

A wide variety of employment opportunities are available for biosystems engineers in industry, public service, and education. Opportunities include positions in government agencies, consulting engineering firms, biotechnology, and agricultural and food equipment industries.

The Agricultural Systems Technology degree program involves solving challenges faced in agricultural, food and natural systems using practical applications of available technologies and managerial skills. Those who work in this area link engineering design with end-users, developing and implementing solutions that will have positive impacts on agriculture and environmental sustainability, use of equipment and products and agribusiness. Flexibility of interests in agricultural and natural systems, business management and life-long learning in an ever-changing technological world are emphasized in the curriculum.

Agricultural systems technology graduates are prepared for a variety of careers and industries in which technology interfaces with agricultural, food and natural systems. Potential career paths include agricultural and power equipment, manufacturing, equipment sales, food production and processing, government agencies, precision agriculture and environmental consulting, grain elevator management, production agriculture, petroleum industry, and water treatment operations.

In both undergraduate degree programs, an integral part of this education continuum—from basic science through comprehensive engineering design and technical problem solving—is learning experiences that facilitate the students' abilities to function effectively in both individual and team environments. Our programs provide every graduate with adequate learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and used as a part of their problem-solving experiences. Finally, the students' experience in solving ever-more-challenging problems enables them to continue to learn independently throughout their professional careers.

Courses

BAE 1011 Introduction to Biosystems Engineering
Description: Introduction to the Biosystems Engineering discipline; use of computers in solving engineering problems; and the application of computer software in engineering analysis and reporting. Previously offered as BAE 1012.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Biosystems & Ag Eng

BAE 1022 Experimental Methods in Biosystems Engineering
Prerequisites: BAE 1012 or consent of instructor.
Description: An introduction to the basics of instrumentation, measurement techniques, and data analysis, with an emphasis on written communication skills. Lecture and laboratory exercises that address measurement principles, including accuracy, precision and error analysis.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 2013 Computational Methods in Biosystems Engineering
Description: Introduction to computer-based methods applied to biosystems and agricultural engineering problems. Application of spreadsheet tools and programming methods to solve engineering problems. Course previously offered as BAE 2012.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3013 Heat and Mass Transfer in Biological Systems
Prerequisites: ENSC 3233, MATH 2233.
Description: Mechanisms of heat and mass transfer, with specific applications in transport processes of biological systems. Introduction to steady state and transient heat conduction and convection, radiation, diffusion, simultaneous heat and mass transfer.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3023 Instruments and Controls
Prerequisites: ENSC 2613, MATH 2233.
Description: Design of control and instrumentation systems, including sensor and actuator principles, interface electronics, system identification, modeling, and performance specification. Applications in biological and agricultural systems. Design project required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3033 Advanced Biology and Material Science of Biomaterials
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404, PHYS 2014, MATH 2144.
Description: Building on basic biology and engineering fundamentals to characterize properties of biological materials such as moisture content and water movement, rheology, electromagnetic response, thermal properties, conveyance requirements, psychometric interactions and heating/cooling response. Course previously offered as BAE 2022 and BAE 2023.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3113 Biological Applications in Engineering
Prerequisites: BAE 2012, BIOL 1114 or (BIOL 1113 and BIOL 1111), ENSC 2213, 3233, MATH 2233 or concurrent enrollment.
Description: Introduction to engineering applications of biological processes. Technologies covered include fermentation systems, enzyme kinetics, wastewater treatment and bioremediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 3213 Energy and Power in Biosystems Engineering
Prerequisites: Completion or concurrent enrollment in ENSC 2213, ENSC 2613, ENSC 3233.
Description: Analysis and design of energy generation, transmission, and utilization in the production and processing of biological materials.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3223 Principles of Agriculture and Off-Road Machinery
Prerequisites: Completion or concurrent enrollment in ENSC 3233, ENSC 2613 and SOIL 2124.
Description: Principles of design, function, operation, testing and application of agricultural and off-road equipment and systems. Vehicle and implement system dynamics and hitching, and plant and soil interaction with machines. Machinery evaluation and standardized test procedures emphasizing safe and efficient performance of modern farm and off-road equipment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 3313 Natural Resources Engineering
Prerequisites: BAE 2023, STAT 2013, and ENSC 3233 or concurrent enrollment.
Description: Principles and practices of engineering analysis and design applied to hydrology, water quality, erosion and sedimentation, air quality, irrigation and animal waste management. Course previously offered as BAE 3323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4001 Professional Practice in Biosystems Engineering
Prerequisites: Concurrent enrollment in BAE 4012.
Description: Preparation for professional practice through case studies about ethics, legal liability, safety, and societal issues. Practical professional communications experience.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 4010 Special Topics in Biosystems Engineering
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4012 Senior Engineering Design Project I
Prerequisites: Completion or concurrent enrollment in ENSC 2143, BAE 3013, BAE 3023, BAE 3213, BAE 4001.
Description: Team work on professional level design projects, using design procedures to develop specifications, propose alternative solutions, consider external constraints, develop drawings or plans, construct, test and evaluate designs.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4023 Senior Engineering Design Project II
Prerequisites: BAE 4001, BAE 4012. BAE 4023 must be taken the immediate semester after completion of BAE 4012.
Description: Second of two-semester sequence of senior design courses. Course previously offered as BAE 4022.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4043 In-Vehicle Networking for Off-Road and Heavy Duty Systems
Prerequisites: BAE 3023.
Description: Analysis of in-vehicle network systems and associated design issues. Introduction to CAN-based networking, serial and parallel communications, sensor interfacing, computer control of external devices, and comprehensive coverage of ISO 11783 and BAE J1939.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. Same course as SOIL 4213. May not be used for Degree Credit with BAE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. Course previously offered as BAE 4223. May not be used for Degree Credit with BAE 5224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4283 Bioprocess Engineering
Prerequisites: BAE 3013, BAE 3113 or consent of instructor, ENSC 3233.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 4283. May not be used for Degree Credit with BAE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4314 Design Hydrology
Prerequisites: BAE 3033, ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 5314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 5323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4324 Water Quality Engineering
Prerequisites: MATH 2233; BAE 2013; CHEM 1414 or CHEM 1515; or consent of instructor.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment, and integrated watershed management. May not be used for Degree Credit with BAE 5374.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 4343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modelling. May not be used for degree credit with BAE 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 4400 Special Problems
Description: Investigations in specialized areas of biosystems engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 4413 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. Course previously offered as BAE 4423. May not be used for Degree Credit with BAE 5443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5000 Master's Research and Thesis
Prerequisites: Consent of major professor.
Description: Research and thesis writing. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5010 Advanced Topics in Biosystems Engineering
Prerequisites: Graduate standing or consent of instructor.
Description: New and emerging areas of study in Biosystems Engineering. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5030 Problems in Biosystems Engineering and Agricultural Technology
Prerequisites: Consent of instructor.
Description: Problems associated with biosystems engineering and agricultural technology. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 5213 Renewable Energy Engineering
Prerequisites: ENSC 2213, ENSC 3233 or consent of instructor.
Description: Renewable technologies such as solar, wind, geothermal, hydroelectric, and biomass to generate energy for electricity, heating, transportation, and other uses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5223 Precision Agriculture
Prerequisites: MATH 1513.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. May not be used for degree credit with BAE 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5224 Machinery for Production and Processing
Prerequisites: ENSC 2143.
Description: Analysis and design of machine components and machine systems for production and processing of biological materials. Component failure theory and analysis. Assembly and design of mechanical elements. May not be used for degree credit with BAE 4224.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5243 Biological Conversion for Advanced Biofuels
Prerequisites: ENSC 2213.
Description: Fundamental principles and applications of converting biomass to advanced biofuels. Focus will be on biological processes, fermentor design and operation, product recovery and emerging fuels.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5283 Advanced Bioprocess Engineering
Prerequisites: Consent of instructor.
Description: Application of fundamental engineering principles to biochemical and biological processes. Introduction to cellular processes, fermentation technology, biological mass transfer and kinetics, bioreactor design and scale-up and downstream processing. Same course as CHE 5283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5313 Watershed Modeling
Prerequisites: BAE 4313 or equivalent.
Description: A computer modeling course with an emphasis on chemical and physical processes governing nonpoint source pollution (nitrogen, phosphorus, sediment) at the basin scale. The laboratory use of state-of-the-art models applied to a variety of agricultural systems. "Hands on" use of comprehensive hydrologic water quality models that utilize spatial data in a geographic information system. Models and parameter uncertainty, digital data sources, parameter estimation and model testing, calibration and validation. For students with advanced personal computer skills.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 6 Contact: 7
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5314 Design Hydrology
Prerequisites: BAE 2023 and ENSC 3233, and STAT 4033 or STAT 4073, or concurrent.
Description: Basic principles of surface and groundwater hydrology and their application in engineering problems. The hydrologic cycle, weather and hydrology, precipitation, evaporation, transpiration, subsurface waters, stream flow hydrographs, hydrologic and hydraulic stream routing, probability of hydrologic events and application of hydrologic models. Laboratory component will emphasize the application of hydrologic and hydraulic models and the quantification of hydrologic and hydraulic parameters. Course previously offered as BAE 4313. May not be used for degree credit with BAE 4314.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5323 GIS for Water Resources
Prerequisites: ENSC 2113 or GEOG 4203 or LA 4453 or NREM 2083.
Description: Various aspects of GIS applications in water resources, including spatial coordinate systems, acquisitioning water resources GIS data, water resources data management and processing, physiographic terrain analysis and mapping, river and watershed networks, National Hydrography Dataset (NHD), and Arc Hydro. May not be used for degree credit with BAE 4323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5324 Modeling and Design in Storm Water and Sediment Control
Prerequisites: BAE 4313 or equivalent.
Description: Analysis and design of storm water, sediment and water quality systems with a focus on application to urban areas and developments in the urban-rural fringe. Advanced concepts in hydrologic modeling with kinematics, diffusion and dynamic modeling of flow; soil erosion, sediment transport and sediment control; storm water quality modeling and the impact of best management practices. In laboratories, use of hydrologic, sediment, and water quality models in analysis and design for real-world problems.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5333 Applied Water Resources Statistics
Prerequisites: STAT 5013 or equivalent.
Description: Applied statistical methods for hydrologists, engineers, and environmental scientists for analysis of environmental data. Parametric and nonparametric methods and exploratory data analysis applied to observed environmental data sets. Laboratory exercises emphasize hands-on application of statistical problems to reinforce concepts.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5343 Environmental Contaminant Fate and Transport
Prerequisites: BAE 4324 or consent of instructor.
Description: Physical, chemical, and biological processes that govern the environmental fate and transport of contaminants in natural systems including soil, water, and air. Topics include conceptual and mathematical models describing transport processes, mass balance, chemical equilibria and kinetics, and modeling. May not be used for degree credit with BAE 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5353 Environmental and Ecological Risk Assessment
Prerequisites: Graduate standing.
Description: Process and methodologies associated with human, environmental and ecological risks. Will quantify uncertainty in human perturbation, management, and restoration of environmental and ecological processes. Course available online only through AG*IDEA consortium.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5374 Water Quality Engineering
Prerequisites: Graduate standing.
Description: Assessment of water quality, water and wastewater treatment, as well as point and nonpoint source pollution processes. Additional topics include principles of environmental chemistry, water body assessment and integrated watershed management. May not be used for degree credit with BAE 4324.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5413 Advanced Data Acquisition and Control
Prerequisites: BAE 3023 or equivalent.
Description: Principles and operation of commercial instruments and data acquisition systems used in biological, environmental, and agricultural applications. Hands-on projects that will improve system design, development and programming skills. Introduction of advanced topics including machine vision, spectroscopy, and data communication networks.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5423 Food Rheology
Prerequisites: ENSC 3233.
Description: Characterization and analysis of the rheological properties of food products. Focus on measurement techniques and equipment, including tube and rotational type instruments, with specific applications in food processing.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Biosystems & Ag Eng

BAE 5433 Biosensors
Prerequisites: PHYS 2114 and CHEM 3053 or equivalent.
Description: Principles and applications of biosensors in food analysis, disease diagnostics, and environmental monitoring. Emphasis on conceptual design and characterization of biosensors. Introduction to recent advances in biodetection using nanotechnology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5443 Food Engineering
Prerequisites: BAE 3013 and ENSC 3233, ENSC 2213.
Description: Analysis and design of various unit operations in food processing including thermal processing, drying, evaporation, freezing, processing non-Newtonian fluids and quality changes during processing. May not be used for degree credit with BAE 4413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 5501 Seminar
Description: Discussion of current literature with special emphasis on research and experimental techniques. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Biosystems & Ag Eng

BAE 6000 Doctoral Research and Dissertation
Prerequisites: Approval by the student's advisory committee.
Description: Research and doctoral dissertation preparation. Offered for variable credit, 1-10 credit hours, maximum of 42 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6101 Teaching Practicum in Biosystems Engineering
Prerequisites: One semester of doctoral study in Biosystems Engineering, or consent of instructor; International students must pass the ITA exam.
Description: Philosophies and techniques of resident and non-resident teaching, including experiences in preparation, presentation, and evaluation of lectures, laboratories, extension or continuing education programs. Course previously offered as BAE 6100.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6213 Advanced Biomass Thermochemical Conversion
Prerequisites: ENSC 2213.
Description: Advanced study, evaluation, and application of thermochemical conversion pathways in biofuel production. Specific topics include biomass gasification, pyrolysis, liquefaction, and heterogeneous catalysis. Course available online only through AG*IDEA consortium. Course previously offered as BAE 6100.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6313 Stochastic Methods in Hydrology
Prerequisites: CIVE 5843, STAT 4033.
Description: Stochastic and statistical hydrologic analyses of surface water and groundwater systems. Analysis of urban and rural drainage and detention systems. Same course as CIVE 6843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6333 Fluvial Hydraulics
Prerequisites: BAE 3013 or equivalent.
Description: Principles of sediment detachment and transport in fluvial systems. Design of stable channels and flow resistance relationships for sediment-laden flows.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6343 Ground Water Contaminant Transport
Prerequisites: SOIL 5583 or CIVE 5913 or GEOL 5453.
Description: Principles of solute and multiphase transport in soils and ground water. Effects of advection, diffusion, dispersion, degradation, volatilization and adsorption. Relationships between laboratory and field scale transport. Contamination by nonaqueous phase liquids.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6503 Similitude in Research
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Biosystems & Ag Eng

BAE 6520 Problems in Soil and Water Engineering
Prerequisites: Consent of instructor.
Description: Consent of instructor. Problems associated with erosion control, drainage, flood protection and irrigation. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6540 Prob Farm Power & Mach
Prerequisites: Consent of instructor.
Description: Literature review and analytical studies of selected farm power and machinery problems. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6580 Problems in Transport Processes
Prerequisites: Consent of instructor.
Description: Literature review and analysis of heat and mass transport and interval diffusion in biological materials. Transport phenomena at interfaces, thermal and cryogenic processing, drying, packed and fluidized bed systems. Thermal and moisture control processing affecting quality of food products. Written report required. Offered for variable credit, 2-6 credit hours, maximum of 6 credit hours.
Credit hours: 2-6
Contact hours: Contact: 2-6 Other: 2-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

BAE 6610 Adv Research & Study
Prerequisites: Approval by the student's advisory committee.
Description: Research and study at the doctoral level on the topic related to the student's doctoral program and field of interest. Offered for variable credit, 1-10 credit hours, maximum of 20 credit hours.
Credit hours: 1-10
Contact hours: Contact: 1-10 Other: 1-10
Levels: Graduate
Schedule types: Independent Study
Department/School: Biosystems & Ag Eng

Undergraduate Programs

- Agricultural Systems Technology, BSAG (p. 2588)
- Biosystems Engineering: Bioprocessing & Food Processing, BSBE (p. 2590)
- Biosystems Engineering: Biosystems Engineering, BSBE (p. 2590)
- Biosystems Engineering: Environmental and Natural Resources, BSBE (p. 2594)
- Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE (p. 2596)
- Biosystems Engineering: Pre-Medical, BSBE (p. 2598)

Graduate Programs

The Department of Biosystems and Agricultural Engineering offers Master of Science and Doctor of Philosophy degrees in Biosystems Engineering. Specific research areas include Machine System Engineering, Bioprocessing and Biotechnology, Food Engineering, and Environment & Natural Resources.

Program Information

BAE provides excellent laboratory and computer facilities for students to explore research and design in such areas as bioprocessing and food engineering, machine vision, sensor and control technology, waste management and utilization, hydrology, water quality, porous media flow, and intelligent systems for agricultural machine design and production.

Research projects are supported by the Oklahoma Agricultural Experiment Station and by state, federal and private grants, and contracts. Well-trained faculty members, many of whom are registered professional engineers with research, consulting, and design experience, guide the graduate students' activities and plan programs to meet students' needs.

Graduate students design experiments and special equipment to conduct their work. They are expected to demonstrate, by supporting research or by designs, the ability to identify a problem, define alternatives, propose a solution, organize a design or an experimental investigation, manage the project to completion and report the results through peer-reviewed papers and professional presentations.

Graduate Admission Requirements

Admission is competitive based on GPA(s) from previous degree(s), TOEFL/IELTS (for international students), statement of interests, experience, and recommendations. The GRE is not required but often considered for graduate assistantship.

Minimum BAE Program Requirements:

- Previous Degree:
  - An undergraduate degree in Biosystems Engineering or other Engineering from an ABET accredited or equivalent program (ABET Accredited Programs (https://main.abet.org/aps/accreditedprogramsearch.aspx)).
  - Students with undergraduate degrees in other disciplines or closely related fields, such as chemistry, physics, mathematics, biological sciences, agricultural sciences, and environmental sciences are also invited to apply to the BAE graduate program. Such applications are evaluated on an individual basis. Completion of additional credit hours of undergraduate courses (such as engineering sciences and advanced biology) may be required before a BAE graduate Plan of Study is developed.
- Grade Point Average (GPA): GPA > 3.0 (on a 4.0 scale). Equivalent grades are required from an international university.
- Prior research and publication experience for a Ph.D. application are preferred.

Degree Requirements

Each graduate student follows an approved plan of study and is supervised by his/her advisory committee. The Plan of Study is designed to satisfy the individual goals of the student, while conforming to the general requirements of the BAE Department and the Graduate College.

Master of Sciences (MS)

- ***Thesis Option*** – MS Students with a Thesis Option will complete a thesis reporting original research. Thirty (30) credit hours are required for the degree, which consists of 23 credits of coursework (including 9 credits of BAE courses), one (1) credit of BAE 5501 BAE Graduate Seminar, and six (6) credits of satisfactory research hours (BAE 5000).
- ***Non-Thesis with a Formal Report*** – MS Students with a Non-Thesis Option and a Formal Report should complete a total of 32 credit hours, which consist of at least 28 credits of coursework (including 6 credits of BAE courses), one (1) credit of BAE 5501 BAE Graduate Seminar, and 1-3 credits of BAE 5010 Advanced Topics in Biosystems Engineering.
- ***Non-Thesis Option*** – MS Students with a Non-Thesis Option are required to complete a total of thirty- two (32) credit hours of coursework (including six credits of BAE courses and one-credit of BAE 5501 BAE Graduate Seminar).

Doctor of Philosophy (Ph.D.)

- ***Ph.D. Degree After MS Option*** – Ph.D. students are required to take a minimum total of 44 credit hours beyond an MS degree. This includes a minimum of 30 credits of BAE 6000 Thesis Research and 14 credits of coursework. The coursework is required to include at least 6 credits of BAE courses, including one (1) credit of BAE 6101 Teaching Practicum and one (1) credit of BAE 5501 BAE Graduate Seminar.
- ***Ph.D. Degree After BS Option*** – Ph.D. students are required to take a minimum 74 credits beyond a BS degree. This includes a minimum of 36 credits of BAE 6000 Thesis Research and 38 credits of coursework. The coursework should include at least six (6) credit hours of BAE courses, including one (1) credit hour of BAE 6101 Teaching Practicum and two (2) credit hours of BAE 5501 BAE Graduate Seminar.

Faculty

Mari S. Chinn, PhD—Professor and Department Head, AT&T Professorship in Engineering
Assistant Dean of the Ferguson College of Agriculture: Danielle Bellmer, PhD
Director, Capital Projects for CASNR/Assistant Director, Oklahoma Agricultural Experiment Station: Randy L. Raper, PhD, PE
Professors:#Hasan Atiyeh, PhD, PE; Danielle D. Bellmer, PhD; Timothy J. Bowser, PhD, PE; Nurhan Dunford, PhD, PE; Ajay Kumar, PhD, PE;#Yu Mao, PhD; Ning Wang, PhD, PE
Associate Professors: Robert Scott Frazier, PhD, PE; Douglas W. Hamilton, PhD, PE; John Long, PhD, PE; Ali Mirchi, PhD
Assistant Professors: Sumon Datta, PhD; Keighobad Jafarzadegan, PhD; Kiranmayi Mangalgiri, PhD; Kevin Moore, PhD, MBA, CSP; Jeffrey Sadler, PhD
Teaching Assistant Professor: Sara Alian, PhD
Professor of Professional Practice: Rajesh Krishnamurthy, PhD
Adjunct Professor: Jason Vogel, PhD, PE
Adjunct Associate Professors:#Krushna Patil, PhD; Derek Whitelock, PhD
Adjunct Assistant Professor:#Sherry L. Hunt, PhD

Agricultural Systems Technology, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 2103	Business Calculus (Q)	
MATH 2123	Calculus for Technology Programs I (Q)	
MATH 2144	Calculus I (Q)	
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
PHYS 1114	College Physics I (LN)	4
or PHYS 2114	University Physics II (LN)	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
SPCH 2713	Introduction to Speech Communication (S)	3
or AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
PLNT 1213	Introduction to Plant and Soil Systems (N)	
ENVR 1113	Elements of Environmental Science (N)	
FDSC 1133	Fundamentals of Food Science	
AGEC 1113	Introduction to Agricultural Economics (S)	3
or ECON 2103	Introduction to Microeconomics (S)	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing	
Select one of the following:		4
CHEM 1215	Chemical Principles I (LN)	
CHEM 1314	Chemistry I (LN)	
CHEM 1414	General Chemistry for Engineers (LN)	
Hours Subtotal		**18**
Major Requirements		
Core Courses		
AST 1413	Introduction to Engineering in Agriculture	3
AST 2313	Surveying	3
AST 3103	Electrical Power and Industrial Control in Agriculture	3
AST 4213	Safety and Health in Agriculture	3
AST 4203	Agricultural Water Management	3
AST 4303	Automation, Sensors and Controls for Agricultural Systems	3
AST 4013	Capstone for Agricultural Systems Technology	3
AGEC 3213	Quantitative Methods in Agricultural Economics	3
AGEC 3423	Farm and Agribusiness Management	3
or MGMT 3013	Fundamentals of Management (S)	
Select from one of the following pairs of courses:		6
ACCT 2103	Financial Accounting	
ACCT 2203	Managerial Accounting	
OR		
ACCT 2003	Survey of Accounting	
And select one of the following:		
FIN 3113	Principles of Finance	
AGEC 3603	Agricultural Finance	

ACCT 3003	Foundational Accounting Skills	
ACCT 3004	Foundational Accounting and Data Skills	
Technical Agriculture Electives		
Select 21 hours from any AST, BAE, any course that satisfies a Ferguson College of Agriculture minor requirement, or any of the following courses not used elsewhere with at least 12 of the 21 hours upper division. Check with your advisor about using these hours and electives to minor in an area in the Ferguson College of Agriculture:		21
ANSI 1124	Introduction to the Animal Sciences	
or ANSI 1023 & ANSI 1021	Introduction to the Animal Sciences and Introduction to the Animal Sciences Lab	
ANSI 2112	Live Animal Evaluation	
ANSI 2123	Livestock Feeding	
ANSI 2253	Meat Animal and Carcass Evaluation	
ANSI 3333	Meat Science	
ANSI 3423	Animal Genetics	
ENPP 2143	Global Agricultural Biosecurity and Forensics	
ENPP 4423	Pesticide Applications	
ENTO 2003	Insects and Society (N)	
ENTO 2223	Insects in Global Public Health (N)	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
ENTO 3421	Horticultural Insects	
ENTO 3461	Insects in Forest Ecosystems	
ENTO 4044	Insect Morphology and Physiology	
ENTO 4464	Insect Biology and Classification	
FDSC 3113	Quality Control	
FDSC 3123	HACCP in the Food Industry	
FDSC 3154	Food Microbiology	
FDSC 3133	Plant Sanitation for Food Processing Operations	
FDSC 3373	Food Chemistry I	
FDSC 4123	Principles of Food Engineering	
FDSC 4143	Food Safety Modernization Act	
FDSC 4233	Food Safety Audit Schemes	
HORT 1013	Principles of Horticultural Science (LN)	
HORT 2513	Herbaceous Plant Materials	
HORT 2613	Woody Plant Materials	
HORT 3084	Plant Propagation	
HORT 3113	Greenhouse Management	
HORT 3153	Turf Management	
HORT 3213	Fruit and Nut Production	
HORT 3433	Commercial Vegetable Production	
NREM 2083	Geospatial Technologies for Natural Resources	
NREM 3613	Principles of Rangeland Management	
NREM 3063	Natural Resource Biometrics	
PLNT 2013	Applied Plant Science	
PLNT 3554	Plant Genetics and Biotechnology	
PLNT 4013	Fundamentals of Weed Science	
SOIL 4234	Soil Nutrient Management	
SOIL 4213	Precision Agriculture	
SOIL 4363	Environmental Soil Science	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
Hours Subtotal		**54**
Electives		
Select 8 hours or hours to complete required total for degree		8
Hours Subtotal		**8**
Total Hours		**120**

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems Engineering: Bioprocessing & Food Processing, BSBE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 122

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN)	4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Engineering & Engineering Science		
ENGR 1322	Engineering Design with CAD	2
or ENGR 1332	Engineering Design with CAD for MAE	
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
ENSC 2213	Thermodynamics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3233	Fluid Mechanics	3
ENSC 3231	Fluids and Hydraulics Lab	1
ENSC 3431	Thermodynamics and Heat Transfer Lab (Select One of the Following:)	1
Select one of the following:		1
ENSC 2141	Strength of Materials Lab	
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3311	Material Science Lab	
ENGR 2421	Engineering Data Acquisition Controls Lab	
Biosystems Engineering		
BAE 1011	Introduction to Biosystems Engineering	1
BAE 1022	Experimental Methods in Biosystems Engineering	2
BAE 2013	Computational Methods in Biosystems Engineering	3
BAE 3033	Advanced Biology and Material Science of Biomaterials	3
Hours Subtotal		**36**
Major Requirements		
Common Professional School		
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
IEM 3503	Engineering Economic Analysis	3
BAE 3013	Heat and Mass Transfer in Biological Systems	3
BAE 3023	Instruments and Controls	3
BAE 3213	Energy and Power in Biosystems Engineering	3
BAE 4001	Professional Practice in Biosystems Engineering	1
BAE 4012	Senior Engineering Design Project I	2
BAE 4023	Senior Engineering Design Project II	3
Specific Professional School		
BAE 4283	Bioprocess Engineering	3
BAE 4413	Food Engineering	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2

BIOC 2344	Chemistry and Applications of Biomolecules	4
Hours Subtotal		**36**
Electives		
Select 7 hours of engineering and/or science electives to be selected from an approved list upon consultation with an advisor		7
Hours Subtotal		**7**
Total Hours		**122**

Other Requirements

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- A grade of "C" or better is required in following courses: BAE 2013, BAE 3013, BAE 3023, BAE 3033, BAE 3213, ENSC 2113, ENSC 2143, ENSC 2213, ENSC 2613, ENSC 3233.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems Engineering: Biosystems Engineering, BSBE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
BIOL 1114	Introductory Biology (LN)	
PBIO 1404	Plant Biology (LN)	
Exploring Society & Human Behavior (S)		
Any course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Engineering & Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE	2
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
ENSC 2213	Thermodynamics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3233	Fluid Mechanics	3
Biosystems Engineering		
BAE 1011	Introduction to Biosystems Engineering	1
BAE 1022	Experimental Methods in Biosystems Engineering	2
BAE 2013	Computational Methods in Biosystems Engineering	3
BAE 3033	Advanced Biology and Material Science of Biomaterials	3
Hours Subtotal		**33**
Major Requirements		
Common Professional School		
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
IEM 3503	Engineering Economic Analysis	3
BAE 3013	Heat and Mass Transfer in Biological Systems	3
BAE 3023	Instruments and Controls	3
BAE 3213	Energy and Power in Biosystems Engineering	3
BAE 4001	Professional Practice in Biosystems Engineering	1
BAE 4012	Senior Engineering Design Project I	2
BAE 4023	Senior Engineering Design Project II	3
Specific Professional School		
ENSC 2123	Elementary Dynamics	3
BAE 4224	Machinery for Production and Processing	4
BAE 4314	Design Hydrology	4
BAE 4283	Bioprocess Engineering (or)	3
BAE 4413	Food Engineering	
Select one of the following:		3
PLNT 4123	Plant-Environment Interactions	
PLNT 4443	Cropping Systems	
HORT 4963	Horticulture Physiology	
ENVR 4033	Ecology of Invasive Species	
NREM 3013	Applied Ecology and Conservation	
MICR 2123	Introduction to Microbiology	
BIOL 3204	Physiology	
Select 6 hours from upper level BAE or AST courses.		6

Hours Subtotal	**44**
Total Hours	**120**

Other Requirements

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- A grade of "C" or better is required in following courses: BAE 2013, BAE 3013, BAE 3023, BAE 3033, BAE 3213, ENSC 2113, ENSC 2143, ENSC 2213, ENSC 2613, ENSC 3233.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems Engineering: Environmental and Natural Resources, BSBE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
BIOL 1114	Introductory Biology (LN)	
PBIO 1404	Plant Biology (LN)	
Exploring Society & Human Behavior (S)		
Any course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Engineering & Engineering Science		
ENGR 1322	Engineering Design with CAD	2
or ENGR 1332	Engineering Design with CAD for MAE	
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
ENSC 2213	Thermodynamics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3233	Fluid Mechanics	3
Biosystems Engineering		
BAE 1011	Introduction to Biosystems Engineering	1
BAE 1022	Experimental Methods in Biosystems Engineering	2
BAE 2013	Computational Methods in Biosystems Engineering	3
BAE 3033	Advanced Biology and Material Science of Biomaterials	3
Hours Subtotal		**33**
Major Requirements		
Common Professional School		
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
IEM 3503	Engineering Economic Analysis	3
BAE 3013	Heat and Mass Transfer in Biological Systems	3
BAE 3023	Instruments and Controls	3
BAE 3213	Energy and Power in Biosystems Engineering	3
BAE 4001	Professional Practice in Biosystems Engineering	1
BAE 4012	Senior Engineering Design Project I	2
BAE 4023	Senior Engineering Design Project II	3
Specific Professional School		
BAE 4314	Design Hydrology	4
BAE 4324	Water Quality Engineering	4
BAE 4323	GIS for Water Resources	3
CIVE 3833	Applied Hydraulics	3
NREM 3013	Applied Ecology and Conservation	3
or NREM 4033	Ecology Of Invasive Species	
SOIL 2124	Fundamentals of Soil Science (N)	4
CIVE 2081	Environmental Chemistry for Engineers	1
Select two of the following:		6

AST 2313	Surveying	
AST 4203	Agricultural Water Management	
BAE 4343	Environmental Contaminant Fate and Transport	
CIVE 3714	Introduction to Geotechnical Engineering	
CIVE 3813	Environmental Engineering Science	
CIVE 4013	Aquatic Chemistry	
CIVE 4833	Unit Operations in Environmental Engineering	
PLNT 4033	Applied Agricultural Meteorology	
GEOL 4453	Hydrogeology	
SOIL 4463	Soil and Water Conservation	
Hours Subtotal		**49**
Total Hours		**125**

Other Requirements

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- A grade of "C" or better is required in following courses: BAE 2013, BAE 3013, BAE 3023, BAE 3033, BAE 3213, ENSC 2113, ENSC 2143, ENSC 2213, ENSC 2613, ENSC 3233.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems Engineering: Machine Systems & Agricultural Engineering, BSBE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
PHYS 2014	University Physics I (LN)	4
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	
BIOL 1114	Introductory Biology (LN)	
PBIO 1404	Plant Biology (LN)	
Exploring Society & Human Behavior (S)		
Any course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Engineering & Engineering Science		
ENGR 1332	Engineering Design with CAD for MAE	2
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
ENSC 2213	Thermodynamics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3233	Fluid Mechanics	3
ENSC 2141	Strength of Materials Lab	1
ENSC 3311	Material Science Lab	1
Select One of the Following:		1
ENSC 2411	Electrical Science Lab	
ENSC 2611	Electrical Fabrication Lab	
ENSC 3231	Fluids and Hydraulics Lab	
ENSC 3431	Thermodynamics and Heat Transfer Lab	
ENGR 2421	Engineering Data Acquisition Controls Lab	
Biosystems Engineering		
BAE 1011	Introduction to Biosystems Engineering	1
BAE 1022	Experimental Methods in Biosystems Engineering	2
BAE 2013	Computational Methods in Biosystems Engineering	3
BAE 3033	Advanced Biology and Material Science of Biomaterials	3
Hours Subtotal		**36**
Major Requirements		
Common Professional School		
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
IEM 3503	Engineering Economic Analysis	3
BAE 3013	Heat and Mass Transfer in Biological Systems	3
BAE 3023	Instruments and Controls	3
BAE 3213	Energy and Power in Biosystems Engineering	3
BAE 4001	Professional Practice in Biosystems Engineering	1
BAE 4012	Senior Engineering Design Project I	2
BAE 4023	Senior Engineering Design Project II	3
Specific Professional School		
BAE 3223	Principles of Agriculture and Off-Road Machinery	3

BAE 4224	Machinery for Production and Processing	4
ENSC 2123	Elementary Dynamics	3
ENSC 3313	Materials Science	3
SOIL 2124	Fundamentals of Soil Science (N)	4
Select One of the Following:		3
PLNT 4123	Plant-Environment Interactions	
PLNT 4543	Cropping Systems	
HORT 4963	Horticulture Physiology	
ENVR 4033	Ecology of Invasive Species	
MICR 2123	Introduction to Microbiology	
BIOL 3204	Physiology	
Hours Subtotal		**41**
Electives		
Select 4 hours of engineering and/or science electives to be selected from an approved list upon consultation with an advisor		4
Hours Subtotal		**4**
Total Hours		**124**

Other Requirements

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- A grade of "C" or better is required in the following courses: BAE 2013, BAE 3013, BAE 3023, BAE 3033, BAE 3213, ENSC 2113, ENSC 2143, ENSC 2213, ENSC 2613, ENSC 3233.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Biosystems Engineering: Pre-Medical, BSBE

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2144	Calculus I (Q)	4
MATH 2153	Calculus II (Q)	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN)	4
PHYS 2014	University Physics I (LN)	4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Exploring Society & Human Behavior (S)		
Any course designated (S)		3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**43**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Basic Science		
CHEM 1515	Chemistry II (LN)	5
Mathematics		
MATH 2163	Calculus III	3
MATH 2233	Differential Equations	3
Engineering & Engineering Science		
ENGR 1322	Engineering Design with CAD	2
or ENGR 1332	Engineering Design with CAD for MAE	
ENSC 2113	Statics	3
ENSC 2143	Strength of Materials	3
ENSC 2213	Thermodynamics	3
ENSC 2613	Introduction to Electrical Science	3
ENSC 3233	Fluid Mechanics	3
Biosystems Engineering		
BAE 1011	Introduction to Biosystems Engineering	1
BAE 1022	Experimental Methods in Biosystems Engineering	2
BAE 2013	Computational Methods in Biosystems Engineering	3
BAE 3033	Advanced Biology and Material Science of Biomaterials	3
Hours Subtotal		**38**
Major Requirements		
Common Professional School		
STAT 4033	Engineering Statistics	3
or STAT 4073	Engineering Statistics with Design of Experiments	
IEM 3503	Engineering Economic Analysis	3
BAE 3013	Heat and Mass Transfer in Biological Systems	3
BAE 3023	Instruments and Controls	3
BAE 3213	Energy and Power in Biosystems Engineering	3
BAE 4001	Professional Practice in Biosystems Engineering	1
BAE 4012	Senior Engineering Design Project I	2
BAE 4023	Senior Engineering Design Project II	3
Specific Professional School		
Select BAE 4000-level (Any Upper Level BAE Classes, at least 5 hours total)		5
CHEM 3053	Organic Chemistry I	3
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
MICR 2123	Introduction to Microbiology	3
BIOL 1604	Animal Biology	4
BIOC 3653	Survey of Biochemistry	3
or MICR 3033	Cell and Molecular Biology	
Hours Subtotal		**44**
Total Hours		**125**

Other Requirements

- A minimum 2.0 Technical GPA. The Technical GPA is calculated from all BAE prefixes or substitutions to BAE courses.
- A grade of "C" or better is required in following courses: BAE 2013, BAE 3013, BAE 3023, BAE 3033, BAE 3213, ENSC 2113, ENSC 2143, ENSC 2213, ENSC 2613, ENSC 3233.
- Students are required to complete the Fundamentals of Engineering (FE) exam prior to graduation.
- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Entomology and Plant Pathology

The mission for the Department of Entomology and Plant Pathology is to discover, develop and disseminate science-based knowledge concerning arthropods and plant pathogens. Entomology is the science and study of insects and related arthropods. Plant Pathology is the science and study of bacteria, viruses, fungi, and nematodes that cause diseases in plants. A strong academic background in the physical and biological sciences is essential for success in both disciplines. Research and education programs range from basic studies of cellular, physiological, and genetic aspects to broad ecological and population studies and focus on the development of practical pest management strategies.

The undergraduate program in entomology leads to the BS in Entomology and offers students opportunities to explore the diversity of nature through the study of arthropods and their interactions with plants, animals, and human culture. Specialized course work in entomology includes insect identification, biology, ecology, physiology, biochemistry, population dynamics, medical and veterinary entomology, and insect pest management.

Plant pathology as a discipline encompasses the science required to understand the causes of plant diseases as well as prevention and controlling diseases. Undergraduate level courses are available in Plant Pathology and are valuable additions to programs in entomology, horticulture, agronomy, ecology, and botany. Specialized course work in plant pathology includes pathogen identification, genetics, host pathogen physiology, biotechnology, molecular genetics, and disease management.

There are many, and diverse, career opportunities for graduates of these programs, including positions involved with pest management in crops and livestock production, stored products such as grains and processed foods and protecting structural systems such as houses from termites and agricultural biotechnology. Undergraduate options in entomology include insect biology and ecology, bioforensics, and pre-medical/pre-veterinary sciences. Undergraduates of the entomology program are prepared to enter graduate programs in several disciplines, including entomology and plant pathology and have been successful in seeking and receiving professional degrees in medical and veterinary science programs. Others gain employment with private industry, research laboratories or county, state, or federal agencies. Some develop their own businesses as consultants and/or entrepreneurs.

Minor in Entomology

This minor is designed to provide students with a basic understanding of insect biology, ecology, and classification. Students are also instructed on applications of Entomology related to ecosystem function, conservation, and agricultural impacts. Directed electives in this major also allow students to explore aspects of insect behavior, aquatic entomology, specific applications of entomology in horticulture, forestry, agronomy, structural, urban, and stored product scenarios. Requirements of the minor include 15 hours of core courses.

Minor in Pest Management

This minor is designed to introduce students to pests including insects, plant pathogens and weeds that damage, reduce the quality, or increase production costs of agricultural crops or livestock, turf or ornamental plants, and trees. Integrated management methods for these pests are presented including cultural, biological, and chemical control strategies. The minor is intended for students majoring in horticulture, plant and soil science, natural resource ecology and management, animal science, environmental science, entomology, or other majors in biological sciences. Requirements of the minor include 18 hours with 9-12 hours from core courses.

Courses

ENTO 2001 Introduction to Entomological Research
Description: Familiarize entomology majors with the department, faculty, and other students. Experience a broad overview of the field of entomology and how a degree in entomology can prepare you for many different opportunities and career paths.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 2003 Insects and Society (N)
Description: Influence of insects and related arthropods on human society. Current issues involving insects, society and the environment. View of insects in folklore and mythology. Basic biology and behavior of insects and use of insects as model systems for biological studies. A course for both majors and non-majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Natural Science Reasoning

ENTO 2223 Insects in Global Public Health (N)
Description: Biology of diseases carried by arthropods, including their historical and societal impacts focusing on the intersection of arthropod and human biology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Natural Science Reasoning

ENTO 2890 Entomology and Plant Pathology Honors Add-on
Prerequisites: Honors Standing and concurrent enrollment in designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Honors Credit

ENTO 2993 Introduction to Entomology (LN)
Description: Basic biology and classification of insects and closely related animals. Overview of the ecological roles of insects in both natural and managed ecosystems. Previously offered as ENTO 2992 and ENTO 2023.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

ENTO 3001 Research Skills in Entomology
Description: Introduction to research opportunities in field and laboratory entomology. Focus on literature review, hypothesis formation, and development of a grant proposal.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3003 Livestock Entomology
Description: Economic importance, biology and control of pests affecting domestic animals. Biology of diseases carried by arthropods, including their impacts focusing on the intersection of arthropod and animal biology. Previously offered as ENTO 2091.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3263 Pests of Agriculture, Urban, and Natural Ecosystems
Description: Biology and ecology of arthropod pests in agricultural, urban, and natural ecosystems as well as the science underlying their management; exploration of the biology, management of arthropods as both pests and beneficial species in a range of systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 3421 Horticultural Insects
Prerequisites: ENTO 2993 or concurrent enrollment.
Description: Identification, biology and control of pests attacking horticultural crops. Emphasis on pests injurious to vegetables, fruits, pecans, greenhouse plants, turf and ornamental trees and shrubs.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3461 Insects in Forest Ecosystems
Prerequisites: ENTO 2993 or concurrent enrollment.
Description: Identification and seasonal life history of insect pests and beneficial insects on shade trees in urban settings, in commercial forests, and in forest products.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3501 Entomology for Educators
Description: Hands-on laboratory course designed to provide high school science teachers, FFA or 4H leaders with all of the resources and background information needed to use insects as a model to teach scientific concepts. Curriculum and resources are provided at the level of 7-12th grade and may be adapted to other levels as needed.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Entomology & Plant Pathology

ENTO 3533 Arachnid Biology
Description: The biology of arachnids with an emphasis on evolutionary relationships and comparative morphology, physiology, ecology, and natural history; laboratory emphasis on ecological role in biodiversity and impact to public / veterinary health including the role mites, spiders, and ticks have in complex food webs.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4044 Insect Morphology and Physiology
Prerequisites: ENTO 2993 Introduction to Entomology.
Description: Function of insects and their organ systems and use of selected techniques for the study of insect physiology. May not be used for degree credit with ENTO 5044. Previously offered as ENTO 3043 and ENTO 3044.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4213 Invertebrate Conservation
Description: Fundamentals of conservation with emphasis on rare and endangered invertebrates including insects. Topics include the importance of enhancing services provided by insects, including pollination, decomposition, pest suppression, and contributions to food webs and how to manage threats from pesticides and habitat losses. May not be used for degree credit with ENTO 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4223 Ecological Methodology
Prerequisites: One course in either ecology or general biology.
Description: Use of insects and other invertebrates for describing and evaluating interactions of individuals and populations with their environments. Coverage of behavioral and physiological ecology on consequences to individuals; population and community ecology considered in dynamics of groups of organisms in ecosystems. May not be used for Degree Credit with ENTO 5223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4400 Special Topics
Prerequisites: Consent of instructor.
Description: Special topics in plant pathology, entomology or related fields. Same course as PLP 4400. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENTO 4464 Insect Biology and Classification
Prerequisites: ENTO 2993 or equivalent or consent of instructor.
Description: Insect phylogeny, taxonomy, behavior, morphology and physiology in the context of ecosystem function. Major roles of insects in shaping ecosystem diversity, as indicators of environmental integrity, and as vectors of plant and animal pathogens and parasites.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4484 Aquatic Entomology
Prerequisites: ENTO 2993 or instructor permission.
Description: Biology, taxonomy and ecology of insects and other invertebrates, inhabiting freshwater environments. Identification and biology of individual taxa. Roles of insects in aquatic ecology, as a forage base. May not be used for degree credit with ENTO 5484 or ZOOL 5484. Same course as ZOOL 4484. Previously offered as ENTO 4483.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4513 Biological Control
Prerequisites: ENTO 2993 or equivalent or consent of instructor.
Description: The ecological principles and applied practices of biological control of insects and weeds. Principles include the scientific basis of biological control; natural enemies and their biology; biological control methods; and biological control in invasive species and pest management programs. May not be used for degree credit with ENTO 5513.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 4573 Introduction to Forensic Entomology
Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4733 Insect Behavior and Chemical Ecology
Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.
Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 4800 Entomology Practicum
Prerequisites: Consent of instructor.
Description: Supervised research or extension experience with faculty in the Entomology/Plant Pathology Dept. or with approved governmental agencies or private employers. Written report required at close of practicum. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

ENTO 4854 Medical and Veterinary Entomology
Prerequisites: ENTO 2993 or consent of instructor.
Description: Biology and control of arthropod vectors of disease and the diseases carried by arthropods. Course includes emphasis on scientific writing skills. No credit for students with credit in ENTO 5854.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 4 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 5003 Insect Biochemistry
Prerequisites: BIOC 3653 or equivalent or consent of instructor.
Description: Biochemical processes in insects and closely related arthropods with emphasis on pathways unique to this group. Biochemical aspects of arthropod-microbe and arthropod-host interactions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5213 Invertebrate Conservation
Description: Fundamentals of conservation with emphasis on rare and endangered invertebrates including insects. Topics covered include the importance of enhancing ecological services provided by insects, including pollination, decomposition, pest suppression, and contributions to food webs. May not be used for degree credit with ENTO 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5523 Integrated Management of Insect Pests and Pathogens
Prerequisites: ENTO 2993 and PLP 3344.
Description: Modern theory and practices for management of insect pests and pathogens in plant production systems, emphasizing an ecologically-based, integrated approach. Basic concepts of pest management, decision-making, cost/benefit analysis and risk/benefit analytics. Previously offered as ENTO 5524.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomol & Plant Path

ENTO 5573 Introduction to Forensic Entomology
Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

ENTO 5613 Host Plant Resistance
Prerequisites: ENTO 2993 and PLP 3343 or equivalent and a general genetics course; or consent of instructor.
Description: Interactions of plants and the herbivorous insects and pathogenic micro-organisms that attack them. Development and deployment of multiple-pest resistant cultivars in crop management systems. Same course as PLP 5613. Previously offered as ENTO 5612.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

ENTO 5733 Insect Behavior and Chemical Ecology
Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.
Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 4733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

PLP 3553 Fungi: Myths and More
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or equivalent.
Description: Fungal biology covering environmental roles and impacts on the health and nutrition of plants, animals and humans. Ethnomycological and industrial uses of fungi in foods, medicines, and intoxicants, and associated folklore and myths. Microscopy, microbiological methods, mushroom cultivation, and identification of microfungi and wild mushrooms. Same course as BOT 3553 or PBIO 3553.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 4343 Principles of Plant Pathology
Prerequisites: PBIO 1404 or MICR 2123 or HORT 1013 or PLNT 2013.
Description: Introduction to basic principles and concepts of plant pathology, including the nature, cause and control of biotic and environmentally induced plant diseases, with emphasis on principles and methods of disease management. Offered in combination with PLP 5343. No credit for both PLP 4343 and PLP 5343. Previously offered as PLP 3344 and PLP 3343.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 4400 Special Topics
Prerequisites: Consent of instructor.
Description: Special topics in Plant Pathology, Entomology or related fields. Same course as ENTO 4400. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

PLP 4923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalent.
Description: Applications of biotechnology in controlling arthropod pests of plants and animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, their effectiveness and associated problems or concerns resulting from their use. Same course as ENTO 4923 and PLNT 4923. Previously offered as PLP 4922. May not be used for Degree Credit with PLP 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entomology & Plant Pathology

PLP 5003 Plant Nematology
Prerequisites: PLP 3343 or concurrent enrollment.
Description: General morphology, taxonomy and bionomics of nonparasitic and plant parasitic nematodes. Plant parasitic nematode assay techniques, subfamily identification, symptomology, pathogenicity and control. Previously offered as PLP 5004.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 5613 Host Plant Resistance
Prerequisites: ENTO 3343 and ENTO 2993 or equivalent and a general genetics course; or consent of instructor.
Description: Interactions of plants and the herbivorous insects and pathogenic micro-organisms that attack them. Development and deployment of multiple-pest resistant cultivars in crop management systems. Same course as ENTO 5613.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

PLP 5860 Colloquium
Prerequisites: PLP 3343.
Description: Concepts and principles of plant pathology through discussions of pertinent literature. Offered for fixed credit, 2 credits, maximum of 2 credit hours.
Credit hours: 2
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Entomology & Plant Pathology

PLP 6303 Soilborne Diseases of Plants
Prerequisites: PLP 3343.
Description: Soilborne diseases, their reception and importance, the pathogens involved, rhizoplane and rhizosphere influences, inoculum potential, specialization of pathogens, suppressive soil effects, and disease management. Lecture and discussion sessions will emphasize in-depth understanding of problems and complexities associated with studies of soilborne pathogens.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entomology & Plant Pathology

Undergraduate Programs

- Entomology: Insect Biology and Ecology, BSAG (p. 2607)
- Entomology: Pre-Professional, BSAG (p. 2609)

Graduate Programs

Advanced Degree Programs

The Department of Entomology and Plant Pathology offers programs of study that lead to the MS of Entomology and Plant Pathology, the PhD in Entomology, or the PhD in Plant Pathology. These programs offer students opportunities to specialize in a wide range of basic or applied research fields. To qualify for graduate study in entomology and/or plant pathology an applicant should obtain a solid background in the basic sciences, especially biology, chemistry, mathematics, English, and communications skills. All requirements of the Graduate College must be satisfied for entry to the graduate programs. In addition, applicants for graduate programs should take the Graduate Record Examination and submit their scores. Students applying to the graduate program must be accepted into a research program by a major professor. The applicant must secure appropriate financial support in the form of a scholarship, fellowship, or graduate assistantship to be negotiated with the major professor and department and be approved by the departmental screening committee and department head before being admitted to the Department. Each graduate student is under the direction of the major professor as advisor and a selected faculty advisory committee. The program of study is adapted to the individual's needs within departmental and Graduate College guidelines. Graduate students are required to meet with their advisory committees every six months for program reports. Each student will follow a program of study and research approved by the student's committee and must submit an approved thesis or dissertation and present a public defense. Students supported as half-time research assistants are expected to be active participants in the research projects of their major professors. Additional information regarding the graduate programs in Entomology and Plant Pathology may be obtained from the department's website at: https://agriculture.okstate.edu/departments-programs/entomol-plant-path/.

Minors

- Entomology (ENTO), Minor (p. 2606)
- Pest Management (PEST), Minor (p. 2611)

Certificates

- Pest Management, UCRT (p. 2612)

Faculty

Justin Talley, PhD—Professor and Head
Regents Professors: Kristopher L. Giles, PhD; Haobo Jiang, PhD
Regents Professor Emerita: Jacqueline Fletcher, PhD
Endowed Professor Structural and Urban Entomology: Bradford M. Kard, PhD
Professors: Francisco Ochoa Corona, PhD; Wyatt Hoback, PhD; Li Maria Ma, PhD; Bruce Noden, PhD; George Opit, PhD; Nathan Walker, PhD
Professors Emeriti: Robert W. Barker, PhD; Carol Bender, PhD; Richard C. Berberet, PhD; Jim T. Criswell, PhD; John P. Damicone, PhD; Jonathon Edelson, PhD; Robert M. Hunger, PhD; Phillip G. Mulder, Jr, PhD; Tom Royer, PhD; Astri Wayadande, PhD; Russell E. Wright, PhD; Ali Zarrabi, PhD
Adjunct Professors: Charles Abramson, PhD; Akhtar Ali, PhD; Norman C. Elliott, PhD; John Foster, PhD; Carla Garzon, PhD; Brian McCornack, PhD; Hassan A. Melouk, PhD; J.P. Michaud, PhD; Kiran Mysore, PhD; Richard Nelson, PhD; Eric Rebek, PhD; Hal Reed, PhD; Carolyn Young, PhD
Associate Professors: Mohammad Arif, PhD; Stephen Marek, PhD
Adjunct Associate Professors: Carmen Greenwood, PhD; Jen White, PhD
Assistant Professors: Meriem Aoun, PhD; Andres Espindola Camacho, PhD; Jonathan Cammack, PhD; Shefali Dobhal, PhD; Maira Duffeck, PhD; Ashleigh Faris, PhD; Mustafa Jibrin,PhD
Adjunct Assistant Professors: Michael Cavallaro, PhD; Francisco Flores, PhD; Deborah Jaworski, PhD; Michael Reiskind, PhD; Kay Scheets, PhD
Extension Specialist & Pesticide Coordinator: Kevin Shelton, MS
Associate Extension Specialists: Steven Kelly Seuhs, MS; Andrine Shufran, PhD
Assistant Extension Specialist–Integrated Pest Management Specialist for Cotton: Maxwell Smith, MS
Director, Extension Specialist-Plant Disease Diagnostics: Jen Olson, MS

Director, Oklahoma Agricultural Leadership Program and Extension Specialist (Stored Products): Edmond Bonjour, MS

Entomology (ENTO), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Minor Requirements		
ENTO 2993	Introduction to Entomology (LN)	3
Select 12 credit hours from any other ENTO courses to achieve the 15 minimum credits. Students must have a minimum of 2.0 GPA in ENTO courses.		12
Total Hours		**15**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Entomology: Insect Biology and Ecology, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q) [1]	
MATH 1613	Trigonometry (Q) [1]	
MATH 2103	Business Calculus (Q) [1]	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Courses designated (N)		
Must include one Laboratory-Based Inquiry (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
Courses designated (N)		2
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, a minimum of 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Ferguson College of Agriculture course cannot be used here and as an (N)		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AGEC 1113	Introduction to Agricultural Economics (S)	3
ENTO 2993	Introduction to Entomology (LN)	3
STAT 2013	Elementary Statistics (Q)	3
Select one of the following:		3
ANSI 1124	Introduction to the Animal Sciences	
BIOC 2344	Chemistry and Applications of Biomolecules	
ENVR 1113	Elements of Environmental Science (N)	
FDSC 1133	Fundamentals of Food Science	
HORT 1013	Principles of Horticultural Science (LN)	
LA 1013	Introduction to Landscape Architecture	
NREM 1014	Introduction to Natural History (LN)	
NREM 1113	Elements of Forestry	
NREM 2013	Ecology of Natural Resources	
PLNT 1213	Introduction to Plant and Soil Systems (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following: [3]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**19**
Major Requirements		
With approval from the advisor and the department head, a maximum of 30 hours of science courses from an accredited doctoral health program may be substituted for major requirements other than the ENTO core courses.		
Core Courses		
ENTO 4044	Insect Morphology and Physiology	4
ENTO 4464	Insect Biology and Classification	4
ENTO 2001	Introduction to Entomological Research	1
ENTO 3001	Research Skills in Entomology	1
ENTO 4800	Entomology Practicum	1
Entomology or Plant Pathology courses not taken as a core course		12
ENTO 2003	Insects and Society (N)	
ENPP 2143	Global Agricultural Biosecurity and Forensics	
ENTO 2223	Insects in Global Public Health (N)	

ENTO 2890	Entomology and Plant Pathology Honors Add-on (Honors Add-On)	
ENTO 3003	Livestock Entomology	
ENTO 3263	Pests of Agriculture, Urban, and Natural Ecosystems (Pests of Ag Urban and Forest)	
ENTO 3533	Arachnid Biology (Arachnid Biology)	
PLP 4343	Principles of Plant Pathology	
PLP 3553	Fungi: Myths and More	
ENPP 3663	Turfgrass Integrated Pest Management	
ENPP 4423	Pesticide Applications (Pesticide Application)	
ENTO 4400	Special Topics	
ENTO 4213	Invertebrate Conservation (Invertebrate Conservation)	
ENTO 4484	Aquatic Entomology	
ENTO 4513	Biological Control	
ENTO 4573	Introduction to Forensic Entomology	
ENTO 4854	Medical and Veterinary Entomology	
Related Courses		
Genetics:		
Select one of the following:		3
BIOL 3023	General Genetics	
ENPP 4323	Genomic Data Applications for Biosecurity (Genomic Data Applications for Biosecurity)	
PLNT 3554	Plant Genetics and Biotechnology	
ANSI 3423	Animal Genetics	
Ecology:		
Select one of the following:		3
BIOL 3034	General Ecology	
NREM 4033	Ecology Of Invasive Species	
ENTO 4223	Ecological Methodology	
Chemistry:		
CHEM 1215	Chemical Principles I (LN)	5
CHEM 1225	Chemical Principles II (LN) [1]	5
or CHEM 1515	Chemistry II (LN)	
Select one of the following:		3
BIOC 3653	Survey of Biochemistry	
CHEM 3013	Survey of Organic Chemistry	
Select 19 hours Entomology, Plant Pathology, or related Math or Science courses.		19
Foreign Language: Up to 10 credit hours of upper division foreign language may be substituted		
Hours Subtotal		**61**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as (S) course above, hours in this block reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Entomology: Pre-Professional, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
Select one of the following:		3
MATH 1513	College Algebra (Q) [1]	
or MATH 2103	Business Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Natural Sciences (N)		
Must include one Laboratory Science (L) course		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	4
or BIOL 1114	Introductory Biology (LN)	
Courses designated (N)		2
Exploring Society and Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F) [1]		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
Ferguson College of Agriculture course cannot be used here and as an (N)		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
AGEC 1113	Introduction to Agricultural Economics (S)	3
ENTO 2993	Introduction to Entomology (LN)	3
STAT 2013	Elementary Statistics (Q)	3
or STAT 2023	Elementary Statistics for Business and Economics (Q)	
Select one of the following:		3
ANSI 1124	Introduction to the Animal Sciences	
ENVR 1113	Elements of Environmental Science (N)	
FDSC 1133	Fundamentals of Food Science	
HORT 1013	Principles of Horticultural Science (LN)	
LA 1013	Introduction to Landscape Architecture	
NREM 1014	Introduction to Natural History (LN)	
NREM 1113	Elements of Forestry	
NREM 2013	Ecology of Natural Resources	
PLNT 1213	Introduction to Plant and Soil Systems (N)	
SOIL 2124	Fundamentals of Soil Science (N)	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**19**
Major Requirements		
Science Core		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
CHEM 3053	Organic Chemistry I	3
CHEM 3112	Organic Chemistry Laboratory	2
CHEM 3153	Organic Chemistry II	3
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
Select one of the following:		3
BIOL 3023	General Genetics (Med)	
ANSI 3423	Animal Genetics (Vet)	
ENTO Requirements		
ENTO 2001	Introduction to Entomological Research	1
ENTO 3001	Research Skills in Entomology	1
ENTO 4044	Insect Morphology and Physiology	4
ENTO 4464	Insect Biology and Classification	4

ENTO 4800	Entomology Practicum	1
Hours Subtotal		*44*
Select one of the following Emphases:		17
Emphasis 1: Pre-Med Emphasis Requirements		
PSYC 1113	Introductory Psychology (S)	
ENTO 4854	Medical and Veterinary Entomology	
Choose 10 hours of science and related courses		
Alternative: Complete 17 hours in first year of medical school.		
Emphasis 2: Pre-Vet Emphasis Requirements		
ENTO 3003	Livestock Entomology	
ANSI 3543	Principles of Animal Nutrition	
ENTO 4854	Medical and Veterinary Entomology	
Choose 7 hours of science and related courses		
Alternative: Complete 17 hours in the first year of Veterinary Medicine		
Emphasis 3: Pre-Bioforensics Emphasis Requirements		
ENPP 2143	Global Agricultural Biosecurity and Forensics	
ENTO 4573	Introduction to Forensic Entomology	
SOC 4333	Criminology (S)	
SOC 4743	Criminalistics: Introduction to Forensic Sciences	
Choose 5 hours of science and related courses		
Hours Subtotal		**17**
Electives		
Select 0 hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Pest Management (PEST), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Minor Requirements		
Select one or both of the following:		3-6
ENTO 2993	Introduction to Entomology (LN)	
PLP 3343	Principles of Plant Pathology	
Select 6-10 hours of the following:		6-10
ENTO 2223	Insects in Global Public Health (N)	
ENTO 3421	Horticultural Insects	
ENTO 3461	Insects in Forest Ecosystems	
HORT 1013	Principles of Horticultural Science (LN)	
MICR 2123	Introduction to Microbiology	
NREM 1014	Introduction to Natural History (LN)	
NREM 2013	Ecology of Natural Resources	
PBIO 1404	Plant Biology (LN)	
PLNT 2013	Applied Plant Science	
PLNT 4013	Fundamentals of Weed Science	
PLNT 4123	Plant-Environment Interactions	
SOIL 2124	Fundamentals of Soil Science (N)	
Additional hours to total 18 hours, from any of the following, or other upper-level course approved by the minor's departmental advisor:		
ENTO 3044	Insect Morphology and Physiology	
ENTO 3421	Horticultural Insects	
ENTO 3461	Insects in Forest Ecosystems	
ENTO 4223	Ecological Methodology	
ENTO 4464	Insect Biology and Classification	
ENTO 4484	Aquatic Entomology	
GEOG 3023	Climatology (N)	
HORT 3113	Greenhouse Management	
NREM 3613	Principles of Rangeland Management	
NREM 4033	Ecology Of Invasive Species	
PBIO 4233	Plant Anatomy	
PBIO 4463	Plant Physiology	
PLNT 4113	Advanced Weed Science	
PLNT 4123	Plant-Environment Interactions	
PLP 3343	Principles of Plant Pathology	
PLP 3553	Fungi: Myths and More	
SOIL 4363	Environmental Soil Science	
SOIL 4483	Soil Microbiology	
Total Hours		**18**

- A grade average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Pest Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Choose one of the following:		3
PLNT 1213	Introduction to Plant and Soil Systems (N)	
HORT 1013	Principles of Horticultural Science (LN)	
Required Core Courses		
ENPP 4423	Pesticide Applications	3
PLP 4343	Principles of Plant Pathology	3
PLNT 4013	Fundamentals of Weed Science	3
Choose one of the following to fulfill a pest management course as part of required core:		3
ENTO 3263	Pests of Agriculture, Urban, and Natural Ecosystems	
ENTO 3003	Livestock Entomology	
ENPP 3663	Turfgrass Integrated Pest Management	
Choose one of the following to fulfill the internship requirement:		**1**
ENTO 4400	Special Topics	
HORT 2010	Internship in Horticulture or Landscape Management	
PLNT 4080	Professional Internship	
ENVR 4010	Internships in Environmental Science	
NREM 4960	Undergraduate Internship	
Total Hours		**16**

Academic Requirements

- Student must maintain a grade-point-average of 2.0 over all courses applicable to this certificate.

Environmental Sciences

The Ferguson College of Agriculture offers an undergraduate major in Environmental Sciences. This interdisciplinary program provides a comprehensive and quality education that prepares students to analyze complex environmental challenges and formulate sustainable, science-based solutions.

As an interdisciplinary, science-oriented major, Environmental Sciences include courses in biology, chemistry, math, physics, statistics, and social sciences. Students may choose one of three areas of emphasis (options):Environmental Policy, Natural Resources, or Water Resources. Depending on the option, upper-division coursework will require interdisciplinary problem-solving in water and soil quality, economic and social policy, political science, resource management, restoration and/or invasive species. Students will also be exposed to general educational subjects, including communications, philosophy, ethics, and sociology.

A primary goal is to enable graduates to solve environmental problems based on scientific principles and in accordance with society's needs.

The environmental sciences undergraduate major is directly supported by faculty from multiple departments in the Ferguson College of Agriculture, including Agricultural Economics (AGEC), Agricultural Education, Communications and Leadership (AECL), Animal and Food Sciences (AFS), Biosystems and Agricultural Engineering (BAE), Entomology and Plant Pathology (EPP), Horticulture and Landscape Architecture (HLA), Natural Resource Ecology and Management (NREM), and Plant and Soil Sciences (PASS). Students in Environmental Sciences also benefit from working in classroom, field, and laboratory settings with faculty who are conducting cutting-edge research related to environmental problems. Undergraduate student research is supported through a variety of programs, including the Freshman Research Scholars Program, Oklahoma Agricultural Experiment Station and Ferguson College of Agriculture Undergraduate Research Scholars Program, Honors Thesis Projects, Niblack and Wentz Research Scholars Programs, Oklahoma Louis Stokes Alliance for Minority Participation Program, Goldwater Scholars, and Udall Scholars.

Graduates from the program are well-prepared for working in areas such as land-use planning, environmental management, natural resources management, waste disposal, water and soil quality, environmental restoration, environmental remediation, and policy analysis.

Our graduates work with federal, state, or local government agencies involved in resource management and policy development. Graduates also find employment with consulting firms that are involved with solving environmental problems. Many graduates go on to graduate school or pursue a professional degree in law or medicine.

Courses

ENVR 1113 Elements of Environmental Science (N)
Description: Application of biology, chemistry, ecology, economics, geology, hydrology, mathematics, physics, and other agricultural sciences to environmental issues. Addressing environmental problems from the standpoint of ethics, risk, and scientific and social feasibility. Emphasis on agricultural systems and natural resources.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture
General Education and other Course Attributes: Natural Science Reasoning

ENVR 3101 Career Development in Environmental Sciences
Description: Develop career readiness skills in the environmental science field through resume building. Identify necessary skills to meet job requirements. Learn about career development resources and networking with environmental professionals. Understand the steps of the job/graduate school search, application and interview process.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 3113 Environmental Sampling and Analysis
Prerequisites: ENVR 1113 and CHEM 1215 or CHEM 1314 and BIOL 1114 or (BIOL 1111 and BIOL 1113) and STAT 2013; SOIL 2124 (or concurrently)
Description: Sampling and analysis for environmental characterization. Introduction of methods to analyze air, soil, water, vegetation, and biological samples. Applying state and federal criteria to evaluate environment.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4010 Internships in Environmental Science
Description: Supervised internships with business, industry, or governmental agencies in environmental policy, natural resources, and water resources. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 4033 Ecology of Invasive Species
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111); and PBIO 1404 and BIOL 1604 recommended.
Description: Ecological principles and their application to invasive species. Population level characteristics, community and ecosystem level effects of a wide variety of taxa including microbial, fungal, plant invertebrate and vertebrate examples. Global consequences and governmental policies/programs designed to limit the spread of invasives. Same course as NREM 4033. May not be used for degree credit with NREM 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4112 Land Measurement and Site Analysis
Prerequisites: MATH 1513 or equivalent.
Description: Methods and techniques used to locate sites and evaluate physical conditions. Includes map interpretation and land description, use of Global Positioning Systems, Rectangular System of Land Description and determination of land elevations, areas and slopes. Same course as AST 4112. Previously offered as MCAG 3311 and MCAG 4112.
Credit hours: 2
Contact hours: Lecture: 1 Lab: 2 Contact: 3
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4113 Advanced Environmental Sampling and Analysis
Prerequisites: ENVR 3113.
Description: Advanced sampling and analysis methods for environmental assessment. Development of Sampling and Analysis Plan and Quality Assurance Project Plan. Emphasis on data synthesis and understanding relationships between environmental media.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality Same course as SOIL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4500 Environmental Science Problems
Prerequisites: Upper-division standing, GPA of 2.50 or better, and consent of instructor.
Description: Individual or small group study of selected problems in environmental science. Course may be used twice for up to six credit hours to meet degree requirements. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 4512 Introduction to National Environmental Policy Act
Description: Outline of the National Environmental Policy Act (NEPA) documentation of potential environmental impacts for decision makers. Development of environmental assessment, environmental impact statements, and categorical exclusion documents that result from the NEPA processes.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4513 Nature-based Solutions
Prerequisites: Senior Standing
Description: Explore the definition of nature-based solutions (NbS) within environmental science and examples of current practices around the world. Examine NbS as a way to confront global environmental challenges. Utilize available guidance to suggest nature-based solutions to specific problems on a local scale. May not be used for degree credit with SOIL 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4573 Ethical Issues in Agriculture and the Environment
Description: Application of ethical concepts and economics theory to real-world agricultural and environmental issues. Recognition of the moral, ethical, and economic dimensions of value that aid in understanding and resolving the controversial aspects of these private and public issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4811 Capstone Project Planning
Prerequisites: Senior standing. ENVR 1113 and ENVR 3113 (with a grade of "C" or better) or ENVR 3113 concurrent.
Description: Collaborate in a team setting to develop a comprehensive proposal and strategic timeline addressing a real-world environmental science problem. Apply essential teamwork skills, integrate knowledge from prior coursework, and engage with environmental stakeholders, advisors, and experts. Develop a written proposal aimed at resolving the issue or implementing an innovative solution.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4813 Environmental Science Capstone
Prerequisites: ENVR 4811 with a grade of "C" or better. Must be taken the immediate semester after completion of ENVR 4811.
Description: Team-based project to develop and recommend solutions and communicate recommendations to stakeholders as part of a senior capstone project. Research results are presented by oral and written reports directly to stakeholders.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 4893 Environmental Soil Chemistry
Prerequisites: SOIL 2124 and CHEM 1225 or CHEM 1515.
Description: Chemistry of soil systems with an emphasis on environmental health and quality. Topics include organic matter dynamics, the role of plant and microbial inputs, ion exchange processes, sorption phenomena, properties of clay minerals, and soil acidity. Same course as SOIL 4893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 4913 Animal Waste Management
Prerequisites: SOIL 2124.
Description: Aspects of animal waste management related to animal nutrition, system design, land application, socioeconomic issues and environmental impacts. Same course as ANSI 4913 and SOIL 4913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5000 Master's Thesis
Prerequisites: Approval of advisory committee and departmental steering committee.
Description: Research leading to master's thesis or report. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5033 GIS Applications for Water Resources
Description: Application of theoretical and practical components of geographic information systems for engineers. Digital mapping of water resources information, spatial coordinate systems and digital terrain analysis using digital elevation models. Analysis of a variety of spatial data in efficient and effective manner. Introduction of geospatial analytical algorithms to solve civil and environmental problems. Equivalent to CIVE 5033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5050 Readings in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course provides an avenue for masters students to extend their knowledge of Environmental Science topics not covered in other courses. This course is not available for doctoral students. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5123 Environmental Problem Analysis
Description: This course reviews the process of environmental problem analysis using current practical examples. This course draws on theories from various disciplines and applies appropriate techniques of analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5200 Special Topics in Environmental Science
Prerequisites: Graduate standing.
Description: Topics and issues in the broad field of environmental science. Group discussions and projects not covered by existing courses such as ecological risk assessment, water chemistry and environmental law. Offered for variable credit, 1-4 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5210 Seminar in Environmental Science
Prerequisites: Consent of the instructor.
Description: This seminar is offered as a special topics course for masters students. The theme of the seminar will vary in accordance with recent advances in environmental science and the interests of the faculty instructor. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5303 Issues in Environmental Sustainability
Description: The course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/ or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5313 Clean Air Act: Regulation, Compliance and Reporting
Description: This course will present an overview of the Federal Clean Air Act including regulatory history and framework, key concepts such as technology forcing, enforceability and adequate margin of safety. This course addresses the preparation of emissions calculations for reporting and permitting, discussion of emissions monitoring and control technologies, and review of reporting requirements and legal standards for compliance. Course will focus on U.S. Federal and State application.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5353 Environmental Outreach and Education
Description: Techniques for environmental education and outreach programs for adults and children in the classroom and in the public arena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5403 Water Resource Management, Law, and Policy
Description: This course explores ways to secure the right to obtain and use water, as well as the law relating to water pollution permitting. Surface and groundwater resources will be the focus. The course covers doctrines of water allocation, groundwater management regimes, the public rights to water, federal and tribal water management and regulation of water resources, and the permitting regime under the Clean Water Act.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5413 Legal Framework for Resource Decision - Making and Public Land Management
Description: This course focuses on the federal, state, and local agencies, policies, strategies, and public law that influence public lands management of the United States, and, to a lesser extent, other countries. Focus is on the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands, with specific emphasis on the application of the National Environmental Policy Act (NEPA), jurisdiction, and contemporary issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5433 Environmental Law for Management Professionals
Description: This course blends fundamental environmental policy with legal and practical information for the management professional with emphasis on case and statutory histories. The course will explore why environmental laws and policies developed, how they are implemented, and how compliance is achieved. Students will gain the ability to evaluate the need for permits and know how to work practically and cooperatively with relevant state and federal agencies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5443 Hazardous Waste Regulations for Environmental Managers
Description: Covers air, water and waste permitting and plans as well as DOT transportation of hazardous materials and several OSHA standards.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5453 Bioremediation for Environmental Managers
Description: Teaches the fundamental biological mechanisms that allow microorganisms and plants to degrade and/or remove contaminants from the environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5503 Environmental Management Practicum
Prerequisites: 18 graduate credit hours.
Description: This course explores methods of analyzing sustainable solutions to complex environmental, safety and health problems using an integrated team approach. This approach combines technical, legal, economic, and sociopolitical information into a coherent analytical framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5510 Environmental Management Internship
Prerequisites: ENVR 5503 and consent of program director.
Description: The student must identify and solve an environmental problem under the supervision of a competent professional environmental manager, and submit and defend a formal report presenting the problem, solution analysis methodologies, and recommended solution. The internship must involve at least 240 contact hours with the manager. The course is required of all masters students pursuing a plan of study in environmental management. Course previously offered as ENVR 5600. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 5513 Advanced Environmental Impact Analysis
Description: National Environmental Policy Act (NEPA) outlines documentation of potential environmental impacts for decision makers. Development of environmental assessment, environmental impact statements, and categorical exclusion documents that result from the NEPA processes. Development of environmental assessment projects graded on a pass/fail basis.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

ENVR 5523 Industrial Ecology
Prerequisites: General biology.
Description: Provides students with an overview and broad understanding of ecology principles as applied to an industrial setting. The course begins with an overview of general ecological principles such as ecosystem components and structures, biogeochemical cycles, energy flows, and properties of populations. The course concludes with a consideration of industrial ecology principles such as sustainability, pollution prevention, life cycle assessment and waste minimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5533 Genres of Environmental Writing
Description: This course focuses on three written genres: proposals, reports and academic articles. Students will learn the basic Introduction, Methods, Results, and Discussion (IMRD) structure. This structure is the basis of workplace reports and research articles in a wide variety of academic disciplines. Students will examine how the language features and organizational structure of these documents are influenced by their audience and context.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5543 Environmental Management Systems
Description: This course introduces strategies for the design and operation of environmental management systems that reduce environmental impacts in conformance with ISO 14000 standards. Topics include aspect identification, impact assessment, impact reduction strategies, and management oversight. Other topics such as training, internal and external auditing, and integration with other management programs will also be addressed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5563 Transportation of Hazardous Materials
Description: This course will fulfill the Federal Department of Transportation (DOT) training requirements for General Awareness and Security Awareness in accordance with 49 CFR, Part 172, Subpart H. The course covers shippers' responsibilities associated with the many hazardous materials regulated by the DOT. Students will learn how to use the hazmat table and complete shipping papers; when to use specific hazard placards, markings and labels; and how to appropriately package specific hazardous materials.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5573 Applied Standards for Environmental Managers
Description: Foundational understanding of the complex regulatory framework related to waste management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5583 Safety Aspects for Environmental Managers
Description: This course fulfills OSHA's 30-hour General Industry training requirements as per 29 CFR 1910. The course provides environmental managers with specialized training to recognize, avoid, and prevent potential jobsite hazards. Students will gain a practical understanding of hazard analysis calculations and their application within the rules and regulations of OSHA.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5593 Hazardous Waste Operations and Emergency Response: HAZWOPER
Description: This course fulfills the off-site requirements of OSHA 40-hour Hazardous Waste Operations and Emergency Responses Standard (HAZWOPER) requirements for General Site Workers as per 29 CFR 1910.120. The course uses discussion, demonstration, simulations, and hands-on experiences to address personal protective equipment use, decontamination procedures, and tactics for establishing safe work areas at hazardous waste sites or in emergency response work.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5613 Introduction to Environmental Toxicology & Industrial Hygiene
Description: An introduction to the basic principles, concepts, and issues associated with environmental toxicology and industrial hygiene. Environmental toxicology addresses biological, chemical and physical contaminants in the environment, their fate and transport, and their potential adverse effects. Also covers environmental factors that contribute to worker illness and injury resulting from exposure to chemical, physical and biological contaminants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5633 Physical Geology for Environmental Managers
Description: Overview of the physical and chemical nature of the solid and fluid earth. Focuses on how these physical attributes and processes influence interactions between humans and the earth's environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5673 Applied Hydrology & Hydrogeology for Environmental Managers
Description: Aspects of surface and groundwater of direct interest to environmental managers. Hydrology is considered from the perspective of irrigation and stormwater management. Hydrogeology is addressed as it applies to industrial and commercial sites. Emphasis on use of monitoring equipment and preparation of stormwater manager plans, groundwater investigation reports, and groundwater management plans.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5703 Chemical Aspects of Environmental Science I
Prerequisites: CHEM 1225, MATH 2155.
Description: For non-chemists with a basic understanding of industrial environmental chemistry. For the environmental professional student in the calculations required for permitting, such as the Clean Air Act, the Clean Water Act, release reporting (CERCLA), RCRA and Industrial Hygiene. The chemical interpretation of MSDS sheets and review of basic chemistry for individuals sitting for professional examinations. Fundamental scientific basis required for dealing with any environmental area.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5713 Chemical Aspects of Environmental Science II
Prerequisites: ENVR 5703.
Description: A continuation of 5703. Applications of statistical methods for environmental monitoring, environmental sampling, chemical wastewater treatment, fugacity (air emission calculations) and environmental chemical analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5723 Field Investigation for Environmental Managers
Description: This course focuses on practical environmental investigations of soil, surface water, and groundwater contamination within an industrial setting. Students will research study sites to design, estimate cost, and implement actual field investigations. Samples will be analyzed and results used to make recommendations for operational improvement and/or remediation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5733 Environmental Site Assessment
Description: This course introduces concepts associated with conducting environmental site assessments (ESAs) and contaminant remediation. Topics include review of federal regulations regarding site assessments, an overview of Phase I and Phase II ESA methodologies, proper soil/water sampling techniques, soil/geology/hydrogeology principles relating to environmental assessments, and various remediation strategies. The course includes field exercises simulating Phase I and Phase II ESA investigations, interpretation of historical aerial photos, and wetland identification.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5743 Environmental Impact Assessment
Description: The course teaches students how to understand and apply the National Environmental Policy Act to evaluate and document potential environmental impacts for decision makers. The course reviews the development of environmental assessment, environmental impact statement and categorical exclusion documents that result from the NEPA process. Emphasis is placed on the development of an environmental assessment program.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5753 Environmental Site Remediation
Description: Introduction to concepts associated with environmental site remediation. Emphasis will be placed on the application and assessment of site clean-up.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5823 Watershed Management
Description: This course provides an overview of watershed management that integrates law, politics, economics, watershed science, engineering, education, social marketing, and conflict resolution. Students will also learn how to critically evaluate watershed management programs. Field trips to watersheds are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 5853 Field Stream Assessment
Description: Techniques for evaluating the health of streams. Laboratory techniques for fish and aquatic insect collection, habitat assessments, chemical water quality analysis, and stream discharge measurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6000 Doctoral Research for Dissertation
Prerequisites: Approval of advisory committee.
Description: Research leading to the PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 24 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6011 Survey of Environmental Science
Description: This course introduces newly admitted environmental science students to environmental research conducted by faculty at OSU. The course also helps students prepare interdisciplinary plans of study that support their professional and research goals. It is required of all ES doctoral students during their first year of enrollment. The course may also be taken by ES masters students, but is not required.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6023 Research Methodologies in Environmental Science
Prerequisites: Permission of student's research adviser.
Description: Introduction to research techniques and literature in environmental science for doctoral students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6031 Interdisciplinary Research Report Preparation
Prerequisites: ENVR 6023 or AGED 5983 and permission of the student's research adviser.
Description: This course teaches students how to prepare and defend interdisciplinary dissertations. Students will learn how to interpret results, articulate findings, justify conclusions, and identify implications. They will also learn how to deliver professional conference presentations and write professional papers. The course requires permission of the student's research adviser. The course is required of all ES doctoral students just before they intend to prepare and defend their dissertations. ES master's students who want to learn more about preparing and defending a thesis may also enroll.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6050 Advanced Readings in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course provides an avenue for doctoral students to extend their knowledge of environmental science topics not covered in other courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6210 Advanced Seminar in Environmental Science
Prerequisites: Consent of the instructor.
Description: This course is offered as a special topics course for doctoral students. The theme of the course will vary in accordance with recent advances in environmental science and the interests of the faculty instructor. No masters student may enroll in this course. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6310 Advanced Topics in Environmental Science
Prerequisites: 24 credit hours of graduate credit and permission of instructor.
Description: This course covers current topics and issues in environmental science. Though the topics will vary, each course will typically include environmental assessment, environmental sustainability and environmental policy. Group discussions and team projects may be required. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

ENVR 6503 Advanced Environmental Management Practicum
Prerequisites: 30 graduate credit hours.
Description: This course discusses and compares advanced methods of analyzing sustainable solutions to complex environmental, safety and health problems. A framework for integrating technical, legal, economic, and sociopolitical analysis into a risk-based model will be developed and applied to a real-world case study. Required for doctoral students pursuing a plan of study in environmental management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6516 Advanced Environmental Management Internship
Prerequisites: ENVR 6503 and consent of program director.
Description: The student must identify and solve an environmental problem in collaboration with a competent professional environmental manager, and submit and defend a formal report presenting the problem, problem and solution analysis methodologies, and recommended solution. The internship must involve at least 480 contact hours with the manager. The course is an experience for all ES doctoral students pursuing a plan of study in environmental management.
Credit hours: 6
Contact hours: Lecture: 6 Contact: 6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

ENVR 6623 Social Aspects of Environmental Planning
Description: This course develops students' theoretical and practical understanding of social aspects of environmental planning. The course addresses topics such as social impact assessment, the role of public involvement, environmental justice, and other social considerations in the implementation of environmental programs. It will also demonstrate the application of social science techniques in environmental planning and prepare students for the application of social perspectives in environmental decision-making - in both the public and private sectors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

Undergraduate Programs

- Environmental Science: Environmental Policy, BSAG (p. 2622)
- Environmental Science: Natural Resources, BSAG (p. 2624)
- Environmental Science: Water Resources, BSAG (p. 2626)

Minors

- Environmental Science (ENVR), Minor (p. 2621)

Graduate Programs

- Environmental Science, MS (http://catalog.okstate.edu/ferguson-college-agriculture/environmental-science-ms/)
- Environmental Science, PhD (http://catalog.okstate.edu/ferguson-college-agriculture/environmental-science-phd/)

Faculty

Karen Hickman, PhD—Professor and Director
Professors: Sergio M. Abit, Jr., PhD (PASS; environmental soil science); Tyson E. Ochsner, PhD (PASS; soil and water resources); Ryan Reuter, PhD (AFS; animal science); Karl Rich, PhD (MIAP; international agriculture); Kevin Wagner, PhD (OK Water Resource Center; water resources); Chris B. Zou, PhD (NREM; hydrology and water quality)
Associate Professors: Qing Lana Luo, MLA (HLA; landscape architecture); Quisto Settle, PhD (AECL; agricultural communications)
Assistant Professors: Julie LaBar, PhD (PASS; environmental science); Lixia H. Lambert, PhD (AGEC; natural resource and environmental economics)
Graduate Program: Scott Stoodley, PhD (Environmental Science Graduate Program; environmental science, water quality, remote sensing)

Environmental Science (ENVR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 19

Code	Title	Hours
Minor Requirements		
ENVR 1113	Elements of Environmental Science (N)	3
SOIL 2124	Fundamentals of Soil Science (N)	4
ENVR 3113	Environmental Sampling and Analysis	3
Select 9 hours from the following:		9
AGCM 3503	Issues Management and Crisis Communications in Agriculture and Natural Resources	
AGEC 3503	Natural Resource Economics	
AGEC 4503	Environmental Economics and Resource Development	
ENVR 4033	Ecology of Invasive Species	
ENVR 4113	Advanced Environmental Sampling and Analysis	
ENVR 4363	Environmental Soil Science	
ENVR 4512	Introduction to National Environmental Policy Act	
ENVR 4513	Nature-based Solutions	
ENVR 4811	Capstone Project Planning	
ENVR 4813	Environmental Science Capstone	
ENVR 4893	Environmental Soil Chemistry	
NREM 4023	Restoration Ecology	
NREM 4443	Watershed Hydrology and Water Quality	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
Total Hours		**19**

Other Requirements

- At least nine upper-division hours must be taken at OSU.
- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Environmental Science: Environmental Policy, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designation (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Courses designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Diversity (D)		
Courses designated (D)		3
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		

Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.

Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [3]	1
ENVR 1113	Elements of Environmental Science (N) [3]	3
SOIL 2124	Fundamentals of Soil Science (N) [3]	4
Select one of the following:		3
BCOM 3113	Written Communication [3]	
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [3]	
ENGL 3323	Technical Writing [2, 3]	
MATH 1513	College Algebra (Q)	3
CHEM 1314	Chemistry I (LN) [1, 3]	4
or CHEM 1215	Chemical Principles I (LN)	
CHEM 1515	Chemistry II (LN) [1,3]	5
or CHEM 1225	Chemical Principles II (LN)	
Hours Subtotal		**23**
Major Requirements		
ENVR 3101	Career Development in Environmental Sciences [3]	1
ENVR 3113	Environmental Sampling and Analysis [3]	3
ENVR 4113	Advanced Environmental Sampling and Analysis [3]	3
ENVR 4512	Introduction to National Environmental Policy Act [3]	2
ENVR 4513	Nature-Based Solutions [3]	3
Select one of the following:		3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN) [3]	
NREM 2083	Geospatial Technologies for Natural Resources [3]	
GEOG 4203	Fundamentals of Geographic Information Systems [3]	
ENVR 4010	Internships in Environmental Science [3]	1
ENVR 4033	Ecology of Invasive Species	3
ENVR 4811	Capstone Project Planning [3]	1
ENVR 4813	Environmental Science Capstone [3]	3
Select one of the following:		3
AGEC 3723	Environmental Law for Agriculture and Natural Resources [3]	
NREM 4043	Natural Resource Administration and Policy [3]	
POLS 4363	Environmental Law And Policy [3]	
CHEM 3013	Survey of Organic Chemistry [3]	3
or BIOC 2344	Chemistry and Applications of Biomolecules	
BIOL 3034	General Ecology [3]	4

PBIO 1404	Plant Biology (LN)	4
or BIOL 1604	Animal Biology	
GEOL 1114	Physical Geology (LN)	4
or PHYS 1114	College Physics I (LN)	
AGEC 4503	Environmental Economics and Resource Development	3
Select one of the following:		3
STAT 4013	Statistical Methods I (Q)	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
AGCM 3503	Issues Management and Crisis Communications in Agriculture and Natural Resources	3
SOC 4433	Environmental Sociology (S) [3]	3
Related Courses		
Select 8 hours of the following:		8
AGEC 3503	Natural Resource Economics	
AGLE 3403	Facilitating Social Change in Agriculture	
BIOL 3053	Freshwater: Concepts, Threats and Management (N)	
ECON 3903	Economics of the Environment	
ENTO 2003	Insects and Society (N)	
ENTO 2223	Insects in Global Public Health (N)	
ENVR 4500	Environmental Science Problems	
ENVR 4893	Environmental Soil Chemistry	
ENVR 4363	Environmental Soil Science	
ENVR 4913	Animal Waste Management	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOG 4113	Environment and Development	
GEOG 4163	Resource Management in the National Parks	
GEOG 4233	Human Dimensions of Global Environmental Change	
GEOL 3503	Environmental Geology (N)	
GLST 2002	Global Sustainability (N)	
GLST 2103	Global Perspectives (GS)	
GLST 4443	Sustainable Tourism and Geography	
LA 4423	Planning and Design for Sustainable Landscapes	
LA 4433	Land Use and City Planning	
NREM 3613	Principles of Rangeland Management	
NREM 4001	Issues In Global Change	
NREM 4023	Restoration Ecology	
PBIO 3253	Environment and Society (N)	
PBIO 3263	Plants and People (N)	
PHIL 3733	Environmental Ethics (H)	
POLS 3493	Public Policy	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
RM 4453	Outdoor Education and Interpretation	
RM 4473	Recreation in the Natural Environment	
SOC 1113	Introductory Sociology (S)	
SOC 4453	Environmental Inequality (S)	
SOC 4473	Oklahoma Environmental Sociology	
SOC 4533	World Population Problems	
Hours Subtotal		**61**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**124**

1

College & Departmental or Major requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above then hours in this block are 0.

3

Hours meeting the major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Environmental Science: Natural Resources, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Diversity (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [3]	1
ENVR 1113	Elements of Environmental Science (N) [3]	3
SOIL 2124	Fundamentals of Soil Science (N) [3]	4
Select one of the following:		3
BCOM 3113	Written Communication [3]	
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [3]	
ENGL 3323	Technical Writing [2,3]	
CHEM 1314	Chemistry I (LN) [1,3]	4
or CHEM 1215	Chemical Principles I (LN)	
MATH 1513	College Algebra (Q)	3
CHEM 1515	Chemistry II (LN) [1,3]	5
or CHEM 1225	Chemical Principles II (LN)	
Hours Subtotal		**23**
Major Requirements		
ENVR 3101	Career Development in Environmental Sciences [3]	1
ENVR 3113	Environmental Sampling and Analysis [3]	3
ENVR 4113	Advanced Environmental Sampling and Analysis	3
ENVR 4010	Internships in Environmental Science [3]	1
ENVR 4363	Environmental Soil Science [3]	3
ENVR 4512	Introduction to National Environmental Policy Act [3]	2
ENVR 4513	Nature-Based Solutions	3
ENVR 4811	Capstone Project Planning [3]	1
ENVR 4813	Environmental Science Capstone [3]	3
Select one of the following:		3
NREM 2083	Geospatial Technologies for Natural Resources [3]	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN) [3]	
GEOG 4203	Fundamentals of Geographic Information Systems [3]	
Select one of the following:		3
AGEC 3723	Environmental Law for Agriculture and Natural Resources [3]	
NREM 4043	Natural Resource Administration and Policy [3]	
POLS 4363	Environmental Law And Policy [3]	
SOC 4433	Environmental Sociology (S) [3]	
CHEM 3013	Survey of Organic Chemistry [3]	3
or BIOC 2344	Chemistry and Applications of Biomolecules	
BIOL 3034	General Ecology [3]	4
PBIO 1404	Plant Biology (LN)	4
BIOL 1604	Animal Biology	4
GEOL 1114	Physical Geology (LN)	4
PHYS 1114	College Physics I (LN)	4
MATH 2144	Calculus I (Q)	3
or STAT 4013	Statistical Methods I (Q)	

Related Courses

Select 9 hours of the following:		9
AGEC 3503	Natural Resource Economics	
AGCM 3503	Issues Management and Crisis Communications in Agriculture and Natural Resources	
BIOL 3163	Environmental Biology	
BIOL 4363	Principles of Toxicology	
ENTO 2993	Introduction to Entomology (LN)	
ENVR 4033	Ecology of Invasive Species	
ENVR 4500	Environmental Science Problems	
ENVR 4893	Environmental Soil Chemistry	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOL 3503	Environmental Geology (N)	
MICR 2123	Introduction to Microbiology	
MICR 2132	Introduction to Microbiology Laboratory	
NREM 3143	Forest Biology	
NREM 4443	Watershed Hydrology and Water Quality	
PBIO 3253	Environment and Society (N)	
PBIO 4005	Field Botany	
PLNT 4123	Plant-Environment Interactions	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4453	Environmental Inequality (S)	
SOIL 3433	Soil Genesis, Morphology, and Classification	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
Hours Subtotal		**61**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**124**

1

College & Departmental or Major requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above then hours in this block are 0.

3

Hours meeting the Major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Environmental Science: Water Resources, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 124

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Courses designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	3
or SPCH 2713	Introduction to Speech Communication (S)	
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
May be paired with another designated course		
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course) [3]	1
ENVR 1113	Elements of Environmental Science (N) [3]	3
SOIL 2124	Fundamentals of Soil Science (N) [3]	4
Select one of the following:		3
BCOM 3113	Written Communication [3]	
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources [3]	
ENGL 3323	Technical Writing [2, 3]	
MATH 1813	Preparation for Calculus (Q) [1, 3]	3
CHEM 1314	Chemistry I (LN) [1,3]	4
or CHEM 1215	Chemical Principles I (LN)	
CHEM 1515	Chemistry II (LN) [1,3]	5
or CHEM 1225	Chemical Principles II (LN)	
Hours Subtotal		**23**
Major Requirements		
ENVR 3101	Career Development in Environmental Sciences [3]	1
ENVR 3113	Environmental Sampling and Analysis [3]	3
ENVR 4113	Advanced Environmental Sampling and Analysis [3]	3
ENVR 4010	Internships in Environmental Science [3]	1
ENVR 4512	Introduction to National Environmental Policy Act [3]	2
ENVR 4513	Nature-Based Solutions	3
ENVR 4811	Capstone Project Planning [3]	1
ENVR 4813	Environmental Science Capstone [3]	3
Select one of the following:		3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN) [3]	
NREM 2083	Geospatial Technologies for Natural Resources [3]	
GEOG 4203	Fundamentals of Geographic Information Systems [3]	
Select one of the following:		3
AGEC 3723	Environmental Law for Agriculture and Natural Resources [3]	
NREM 4043	Natural Resource Administration and Policy [3]	
POLS 4363	Environmental Law And Policy [3]	
SOC 4433	Environmental Sociology (S) [3]	
CHEM 3013	Survey of Organic Chemistry [3]	3
or BIOC 2344	Chemistry and Applications of Biomolecules	
BIOL 3034	General Ecology [3]	4

PBIO 1404	Plant Biology (LN)	4
or BIOL 1604	Animal Biology	
GEOL 1114	Physical Geology (LN)	4
PHYS 1114	College Physics I (LN)	4
PHYS 1214	College Physics II (LN)	4
MATH 2144	Calculus I (Q)	4
NREM 4443	Watershed Hydrology and Water Quality	3
Select one of the following:		3
ENVR 4893	Environmental Soil Chemistry	
SOIL 4683	Soil, Water, and Weather	
ENVR 4363	Environmental Soil Science [3]	
Related Courses		
Select 5 hours of the following:		5
AGEC 3503	Natural Resource Economics	
BIOL 3053	Freshwater: Concepts, Threats and Management (N)	
BIOL 4363	Principles of Toxicology	
BIOL 4434	Limnology	
ENTO 4484	Aquatic Entomology	
ENVR 4033	Ecology of Invasive Species	
ENVR 4500	Environmental Science Problems	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOL 4403	Environmental Geochemistry	
GEOL 4453	Hydrogeology	
MICR 2123	Introduction to Microbiology	
MICR 2132	Introduction to Microbiology Laboratory	
NREM 4023	Restoration Ecology	
NREM 4403	Wetland Ecology and Management	
SOIL 3433	Soil Genesis, Morphology, and Classification	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
Hours Subtotal		**61**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**124**

1

College & Departmental or Major requirements that may be used to meet GE requirements.

2

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above then hours in this block are 0.

3

Hours meeting the Major common core.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture and Landscape Architecture

Horticulture is the science, business and art associated with the culture, production, preservation and processing of flowers, trees, shrubs, turfgrass, vegetables, fruits, and nuts. It also includes the proper environmental use and maintenance of plants in the landscape. Horticulture is involved with the production and processing of a significant part of the world's food supply. It provides a major source of beauty in and around homes, cities, parks, highways, golf courses and other public areas. Educational opportunities for study in horticulture cover a wide variety of plants and subjects and range from the cellular to the whole plant level. Factors such as plant nutrition, irrigation, genetics, propagation, control of flowering, and fruit and seed production are considered in their relationship to culture, production, conservation of resources, harvesting, processing and storage. Students can prepare themselves for careers in public garden management (arboreta, parks, and zoos), turf (sports and golf course management), horticulture business, small farm production, controlled environment production (ornamentals or vegetables), environment and sustainability practices, sales, and marketing, along with teaching, extension, and research experience.

Landscape Architecture is the study of artistic, scientific, and technical principles as they are applied to landscape planning, design, and management services. It applies artistic and scientific principles to the design, planning, and management of both natural and built environments. Landscape architects work on a wide variety of projects including garden design, residential design, community planning, urban design, parks and recreation, commercial/campus design, and sustainable site design. The design process involves creative expression that comes from an understanding of the context of site (or landscape), natural systems, cultural systems, and social dynamics. It requires one to interpret, imagine, draw, conceptualize, synthesize, and construct project ideas that transform both the landscapes and the users of those landscapes. As issues of sustainability are becoming more critical, Landscape Architects are poised to address them, as they design the interface between humankind and the urban, suburban, and natural environment.

The Department of Horticulture and Landscape Architecture offers undergraduate programs leading to the following degrees:

- BS in Horticulture
- BLA in Landscape Architecture

The BS in Horticulture

For the BS degree in Horticulture, students can choose from seven options.

Horticulture Business features the opportunity to combine horticulture with the principles of running a business. A built-in requirement for a formal academic minor in a business area is included in this option.

Horticulture Food Safety offers classes that train students in the principles and practices of minimizing potential food safety risks in growing, handling, and processing fruits and vegetables. This option allows students to become certified in Good Agricultural Practices (GAPs), Good Handling Practices (GHPs) and Preventive Controls for Human Foods. It also features the opportunity to become trained in Global Food Safety Initiative (GFSI) recognized food safety programs.

Horticulture Science emphasizes preparing students for science-based careers, including laboratory science or graduate study. This option provides training and expertise for production, maintenance and preservation of fruits, nuts, vegetables, nursery crops, flower crops, etc. Training can be general or be chosen to emphasize a particular commodity area of horticulture. Students learn plant care techniques and the role plants and landscape applications play in sustaining the environment.

Landscape Management emphasizes the construction and management phases of landscape development, including plants, environmental applications, and structures. Courses include basic landscape architectural design, construction technology, business, and horticulture. Students may emphasize either landscape design or business management. Students emphasizing business management may complete a minor in Management through the OSU Spears School of Business. Graduates are employed by landscape contracting companies, design-build firms, landscape maintenance companies, landscape nurseries and governmental agencies.

Public Horticulture focuses on the people-plant interface, particularly in urban settings. Students may choose to specialize in either garden management or urban horticulture. The program is appropriate for those interested in careers in arboreta, botanic gardens, zoos, horticultural societies, park systems, museums, habitat creation and restoration (especially disturbed areas and/or wetlands) civic garden centers, and specialty crop production in developed areas. This option can also lead to graduate study. Students have the opportunity to be involved in The Botanic Garden at OSU and the department's television show, Oklahoma Gardening.

Turf Management provides training for turfgrass production and for management of turfgrass in golf courses, parks, athletic fields, home landscapes, airports and along highways.

Urban Horticulture focuses on the production, processing and marketing of horticultural food and ornamental crops in the urban environment. It provides training for broad practices including small scale crop production, vertical farming, hydroponics, container production, greenhouse production, roof-top, and organic production. Students have the opportunity to be involved in vegetable production at the OSU Student Farm.

The BLA in Landscape Architecture

The Bachelor of Landscape Architecture (BLA) degree focuses on professional practice. This degree is nationally accredited by the Landscape Architectural Accreditation Board (LAAB). Students will experience a strong landscape design curriculum that is supported with courses in art, construction, horticulture, ecology, environmental science, and social science. Students will gain professional practice experience through short-term or long-term internships with Landscape Architecture firms. Typical employers of landscape architects include landscape architecture firms, architectural/engineering firms and government agencies dealing with land planning, environmental and conservation applications, urban planning, and parks/recreation.

Minor in Horticulture

Additional formal training in horticulture can benefit students in career areas as diverse as education, interior design, or entrepreneurship. The

Horticulture minor requires 15 hours of core courses in soil science, plant biology and horticultural science, along with advanced cross-commodity applications in plant propagation. The core provides the basic prerequisites for further study.

Courses

HORT 1013 Principles of Horticultural Science (LN)
Description: Basic physical and physiological processes responsible for plant dormancy, growth, flowering, fruiting, and senescence with respect to the science and art of production, cultivation, utilization, and/or storage of horticultural plants. Current research associated with various horticultural commodity groups.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 2010 Internship in Horticulture or Landscape Management
Prerequisites: 24 credit hours and consent of adviser.
Description: Supervised work experience with approved public and private employers in horticulture, landscape management, or related fields. Credit will not substitute for required courses. Graded on a pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 2513 Herbaceous Plant Materials
Description: Identification, cultural requirements, and use of ornamental garden and indoor herbaceous plants.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 2613 Woody Plant Materials
Description: Identification, cultural requirements, and use of ornamental woody plants including deciduous and evergreen trees, shrubs and vines.00 per credit hour applies
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3013 Arboriculture
Prerequisites: HORT 2613 or NREM 2134 and SOIL 2124.
Description: Theory and practice of selecting, planting and maintaining trees, shrubs and vines in the landscape. Previously offered as HORT 3014.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 3084 Plant Propagation
Prerequisites: HORT 1013 or PLNT 1213
Description: Principles and practices involved in propagation of plants. Anatomical, morphological and physiological aspects of sexual and asexual methods of regeneration and their importance.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3113 Greenhouse Management
Prerequisites: HORT 1013 or PLNT 1213
Description: Commercial greenhouse operation with emphasis on floricultural plant production aspects; environment, growing media, fertilizers and application methods, watering, pest and disease control, chemical growth regulators, production costs.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT or LA Course Field Trip fee of $20 and HORT/LA Facil, Equip, Lab fee of $12 per credit hour apply.

HORT 3153 Turf Management
Description: Selection, establishment and maintenance of grass species and other plant materials for special use areas.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3213 Fruit and Nut Production
Prerequisites: BIOL 1113 and BIOL 1111 or PBIO 1404.
Description: Commercial production of fruits and nuts, with emphasis on pecan, apple, peach, strawberry, blackberry and blueberry. A two-day field trip is required.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3253 Personnel and Financial Management for Horticulture
Prerequisites: HORT 1013 or LA 1013 and one upper division HORT or LA course.
Description: Preparing and executing an operational budget in a horticultural service industry and methods for maintaining an effective work force.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 3433 Commercial Vegetable Production
Description: Commercial production and marketing of vegetable crops. May not be used for degree credit with HORT 5433.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3513 Landscape Irrigation
Description: Basics of landscape irrigation with an emphasis on residential irrigation design, maintenance and installation.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3613 Bidding and Estimating
Prerequisites: ACCT 2003 or ACCT 2103.
Description: Budgeting, bid preparation and job cost estimation for landscape related industries including golf course budgeting, overhead and labor budgeting, and profitable pricing. Previously offered as HORT 3612.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 3713 Urban Horticulture Production
Prerequisites: HORT 1013 or PLNT 1213.
Description: Principles and production of crops for public or community practices with emphasis on production associated with hydroponics, raised beds, containers, controlled environments, roof tops, high tunnels, and farmers markets.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 3833 Hydroponics and Soilless Crop Production
Description: Basics of soilless production with emphasis on hydroponics and aquaponic production of vegetables and cut flowers.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4010 Special Topics in Horticulture
Description: New and emerging areas of study in Horticulture. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4053 International Experience in Horticulture (G)
Description: Participation in international travel to develop an understanding of different horticultural systems and technologies used outside the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

HORT 4133 Temperature Stress Physiology
Prerequisites: CHEM 1215, and BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as PLNT 4133. May not be used for degree credit with HORT 5133 and PLNT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4223 Small Farms Crop Production and Management
Description: Principles, planning, methods, and techniques that encompass small farm operation and management. With a focus on vegetables and other local farmer's market crops and sectors, content will include small farm crop production, business model development and enterprise management. May not be used for degree credit with HORT 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4453 Turfgrass Physiology and Ecology
Prerequisites: HORT 3153, and BIOL 1113 and BIOL 1111 or PBIO 1404.
Description: A study of the relationship between turf physiology and modern turf management practices. Concepts of stand ecology with emphasis on species dominance in stressful environments. May not be used for Degree Credit with HORT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4493 Athletic Field Management
Prerequisites: HORT 3153.
Description: Principles, practices and challenges associated with natural turf- covered athletic field management; field construction, maintenance and evaluation of playing surface quality; soil physical properties influencing management and field use, construction and maintenance materials specification, and traction, hardness and ball response factors. Offered in combination with HORT 5493. No credit for both HORT 4493 and HORT 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4543 Sustainable Nursery Production
Prerequisites: HORT 1013
Description: Sustainable commercial production of field- and container-grown woody ornamental crops. Previously offered as HORT 3544. May not be used for degree credit with HORT 5543.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4713 Public Garden Management
Description: Issues and methods in public garden management, including database management of collections, conservation of native species, grant writing, volunteer coordination, computerized mapping systems, master planning, and other topics pertaining to a career in public horticulture. Field trips required. May not be used for degree credit with HORT 5713.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4773 Applied Landscape Planning
Description: Concepts of landscape management, design and construction including hand graphics and AutoCad with an emphasis on residential landscape. No credit for students in the landscape architecture or landscape management programs. Previously offered as HORT 4774.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4901 Horticulture in Controlled Environments Laboratory
Prerequisites: HORT 4903 or concurrent enrollment.
Description: Hands-on experiences and virtual field trips designed to reinforce principles discussed in HORT 4903, and to develop skill sets important to successful implementation of horticultural practices in controlled environments. May not be used for Degree Credit with HORT 5901.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Hort & Landscape Arch

HORT 4903 Horticulture in Controlled Environments
Prerequisites: CHEM 1215 and HORT 3113.
Description: Designing, constructing, monitoring, and manipulating controlled environments for efficient horticultural production. May not be used for degree credit with HORT 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4933 Principles of Sustainable and Organic Horticulture
Prerequisites: HORT 1013.
Description: Principles and practices of sustainable, organic, and alternative horticultural management systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4943 International Horticulture
Prerequisites: HORT 1013.
Description: Overview of the horticulture industry worldwide. Export, marketing, and international trade issues in a global horticulture context. Individual country analyses of specific fruit, vegetable and ornamental crops. May not be used for Degree Credit with HORT 5943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4953 Plant Growth and Development
Prerequisites: HORT 1013 and PBIO 1404.
Description: Plant embryogenesis and organogenesis; growth and development of shoots and reproductive structures; plant developmental processes including shoot expansion and dormancy as influenced by temperature, light, and other environmental factors. May not be used for Degree Credit with HORT 5953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4963 Horticulture Physiology
Prerequisites: CHEM 1215, and BIOL 1114 or (BIOL 1113 and BIOL 1111) or PBIO 1404.
Description: Physiology of horticultural plants, including water relations, respiration, photosynthesis, and growth and development. May not be used for degree credit with HORT 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 4973 Sustainable Landscape Management
Prerequisites: HORT 1013 or LA 1013.
Description: The ecological principles and landscape resources supporting decision-making for sustainable landscape management. Retrofits of existing development for enhanced sustainability, including equipment selection, stormwater management, use of successional landscapes, permaculture, and organic methods. May not be used for Degree Credit with HORT 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 4990 Horticultural Problems
Prerequisites: Consent of instructor.
Description: Study of horticultural problems under the supervision of a faculty member. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5000 Master's Research and Thesis
Description: Research on thesis problems required of master's degree candidates. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Proposal and results seminars for graduate programs. Offered for fixed credit, 1 credit hour, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5110 Advanced Horticultural Problems
Description: Selected research problems in horticulture, floriculture, landscape design; nursery production, olericulture and pomology. Offered for variable credit, 1-12 credit hours, maximum of 20 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5133 Temperature Stress Physiology
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as PLNT 5133. May not be used for degree credit with PLNT 4133 and HORT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5223 Advanced Small Farms Crop Production and Management
Description: Principles, planning, methods, and techniques that encompass small farm operation and management. With a focus on vegetables and other local farmer's market crops and sectors, content will include small farm crop production, business model development and enterprise management. May not be used for degree credit with HORT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5233 Experimental Horticulture
Description: Methods of conducting research with horticultural crops, including organization and plans, field plot techniques and analysis of data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5293 Plant Response to Water Stress
Prerequisites: BIOC 3653 and PBIO 4463.
Description: Physiological ramifications of water deficit stress on cells, tissues, plants and canopies. Discussion of the soil/plant/atmosphere continuum, and avoidance and tolerance mechanisms leading to drought resistance. Photosynthesis, transpiration, and water-use efficiency and their relationship to biomass accumulation and crop yield. Same course as PLNT 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5403 Commercial Vegetable Production
Prerequisites: HORT 1013, SOIL 2124 and PBIO 1404.
Description: Commercial production and marketing of vegetable crops. May not be used for degree credit with HORT 3433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5423 Flowering and Fruiting in Horticultural Crops
Prerequisites: PBIO 3463.
Description: Environmental, chemical and cultural factors affecting the flowering and fruiting of horticultural crops. Previously offered as HORT 5422.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5433 Postharvest Physiology
Prerequisites: BOT 3463 and BOT 3460.
Description: Physiological causes for post-harvest changes in horticultural crops (ripening and senescence) and the basis for certain postharvest treatments (precooling at harvest, controlled atmosphere storage, refrigeration, and packaging techniques). Commodity-specific postharvest phenomena.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5443 Basic Laboratory Experimentation
Description: Principles and theory of safe laboratory practice and experimentation. Techniques for developing and optimizing plant sample acquisition, extraction and analysis protocols. Theory of operation and maintenance of common laboratory instrumentation (pH measurement, solid and liquid analytical measurement, temperature measurement, spectrophotometry, HPLC, GC). Laboratory provides hands-on experience for integrated protocol development and instrument use.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5453 Turfgrass Physiology and Ecology
Prerequisites: HORT 3153, PBIO 1404.
Description: A study of the relationship between turf physiology and modern turf management practices. Concepts of stand ecology with emphasis on species dominance in stressful environments. May not be used for degree credit with HORT 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5493 Athletic Field Management
Prerequisites: HORT 3153.
Description: Principles, practices and challenges associated with natural turf- covered athletic field management; field construction, maintenance and evaluation of playing surface quality; soil physical properties influencing management and field use, construction and maintenance materials specification, and traction, hardness and ball response factors. Offered in combination with HORT 4493. No credit for both HORT 4493 and HORT 5493.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5543 Sustainable Nursery Production
Description: Sustainable commercial production of field and container grown woody ornamental crops. No credit for both HORT 4543 and HORT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5713 Public Garden Management
Prerequisites: HORT 1013.
Description: Issues and methods in public garden management, including database management of collections, conservation of native species, grant writing, volunteer coordination, computerized mapping systems, master planning, and other topics pertaining to a career in public horticulture. Field trips required. May not be used for degree credit with HORT 4713.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

HORT 5901 Horticulture in Controlled Environments Laboratory
Prerequisites: HORT 4903 or concurrent enrollment.
Description: Hands-on experiences and virtual field trips designed to reinforce principles discussed in HORT 4903, and to develop skill sets important to successful implementation of horticultural practices in controlled environments. May not be used for Degree Credit with HORT 4901.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Graduate
Schedule types: Lab
Department/School: Hort & Landscape Arch

HORT 5903 Horticulture in Controlled Environments
Prerequisites: CHEM 1215 and HORT 3113.
Description: Designing, constructing, monitoring, and manipulating controlled environments for efficient horticultural production. May not be used for degree credit for HORT 4903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5943 International Horticulture
Prerequisites: HORT 1013.
Description: Overview of the horticulture industry worldwide. Export, marketing, and international trade issues in a global horticulture context. Individual country analyses of specific fruit, vegetable and ornamental crops. May not be used for Degree Credit with HORT 4943.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 5953 Plant Growth and Development
Description: Plant embryogenesis and organogenesis; growth and development of shoots and reproductive structures; plant development processes including shoot expansion and dormancy as influenced by temperature, light, and other environmental factors. May not be offered for degree credit with HORT 4953.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5963 Horticulture Physiology
Prerequisites: CHEM 1215 and BIOL 1114 or (BIOL 1113 or BIOL 1111).
Description: Physiology of horticultural plants, including water relations, respiration, photosynthesis, and growth and development. Offered in combination with HORT 4963. May not be used for degree credit with HORT 4963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

HORT 5973 Sustainable Landscape Management
Description: The ecological principles and landscape resources supporting decision-making for sustainable landscape management. Retrofits of existing development for enhanced sustainability, including equipment selection, stormwater management, use of successional landscapes, permaculture, and organic methods. No credit for both HORT 4973 and HORT 5973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

HORT 6000 Doctoral Rsch & Dissertation
Description: Research on dissertation problems required of PhD candidates in multidisciplinary programs. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 1013 Introduction to Landscape Architecture
Description: An overview of the field of landscape architecture with an emphasis on the application of artistic and scientific principles of design, planning and management of natural and built environments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 1213 Visual Communication I for Landscape Architecture
Description: The practice and application of hand graphics, professional drafting, and freehand sketching skills to explore, communicate, and represent natural, designed, and built landscapes. Previously offered as LA 2002 and LA 2213.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 1223 Visual Communication II for Landscape Architecture
Description: The practice and application of digital visualization in the landscape architectural design process. Introduction to computer applications used in the industry for conceptualizing, drafting, modeling, and graphic communications. Previously offered as LA 3002 and LA 2223.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 1323 Computer-Aided Design for Landscape Architecture
Description: Principles and applications of computer-aided design (AutoCAD) in landscape architecture. Visual communication techniques related to technical and construction drawings. Introduction to portfolio design. Previously offered as LA 1122 and LA 2323.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 1525 Studio 1: Principles and Theory of Design
Prerequisites: Concurrent enrollment in LA 1223.
Description: Introduction to basic elements, principles, and theory of design. Exploration of design process, both 2D and 3D form, spatial organization, and temporal nature of landscape. Applied projects in small scale landscape design. Previously offered as LA 3314, LA 3315, and LA 3773.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 2413 Ecological Landscape Design
Description: Introduction to principles of ecological landscape design, natural systems, and landscape performance as applied in contemporary landscape architecture. Includes the natural, cultural, and aesthetic components involved with analyzing existing space for design and planning purposes. Exposure to historical and contemporary individuals that have inspired ecological landscape design and planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 2513 Native American Symbolism in Landscape Design (D)
Description: Study of cultural diversity through Native American symbolism and application of these symbols as design elements relating to functional and aesthetic qualities in landscape design.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Diversity

LA 2515 Studio 2: Site Design
Prerequisites: LA 1223, LA 1525, and concurrent enrollment in LA 1213.
Description: Design process, site inventory and analysis as it relates to physical and social site design. Place making, experiential, behavioral, and environmental considerations among several issues to be examined. Applied projects will focus on residential design, site design and design development. Previously offered as LA 3324, LA 3325, and LA 4013.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 2523 Garden Design in Harmony with Local Ecology
Description: History, theory, and practice of creating gardens in harmony with local ecology to express aesthetic and cultural values of individuals and societies. Environmental aspects of place related to design form and expression.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 2525 Studio 3: Recreation and Open Space Design
Prerequisites: LA 2515.
Description: Recreation and play, the interface of nature, human-kind and land ethic. Applied projects will address structured and nature play, active and passive parks, open space planning, and natural landscapes. Previously offered as LA 4023, LA 4414 and LA 4415.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 3010 Internship in Landscape Architecture
Prerequisites: 45 credit hours and consent of internship chairperson.
Description: Supervised work experience with approved public or private employers in landscape architecture or related fields. May not be substituted for other required courses. Graded on a pass-fail basis. Offered for variable credit, 1-7 credit hours, maximum of 10 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3020 Long-Term Internship in Landscape Architecture
Prerequisites: LA 3515 and approval of academic advisor and faculty internship coordinator.
Description: Supervised continuous work experience for 6 months or more with approved public or private employers in landscape architecture or related fields. Presentation required following the internship experience.
Credit hours: 1-8
Contact hours: Contact: 1-8 Other: 1-8
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3112 Landscape Architecture National Survey
Prerequisites: LA 3315.
Description: Examination and exposure to the state of landscape architecture practice and issues critical to profession. Includes 4- to 6-day out-of-state field trip component to the city hosting the American Society of Landscape Architects National Convention, observation of nationally recognized built works, participation in the convention and networking with professionals from across the country. Includes pre-trip research and post-trip documentation. Required for third-year landscape architecture students.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 3515 Studio 4: Landscape Planting Design
Prerequisites: LA 2525, HORT 2613.
Description: Introduction and application of the techniques, methods, and concepts for exploring, expressing, and representing landscape planting designs. Medium to large scale landscape architectural planting design projects and the preparation of concept sketches, illustrative plans, construction documents, and specifications. Emphasis on plant selection and arrangement criteria based on ecology and horticultural practices, the principles of design, and the fundamentals of bioregionalism. Previously offered as LA 4033 and LA 4034.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3525 Studio 5: Sustainable Construction and Design
Prerequisites: LA 3515 and LA 3884 or LA 4894.
Description: Explore sustainable issues to improve the design and implementation of natural, cultural, and built environments in the practice of landscape architecture. Applied projects will focus on and apply sustainable construction and design solutions at various scales while considering impacts on human beings and the environments. Previously offered as LA 3893 and LA 3894.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 3673 History and Theory of Landscape Architecture (H)
Description: Introduction to the history of the built environment from ancient to contemporary time that has created the styles of historical significance in landscape architecture. Examination of the social, philosophical, cultural, economic, political, and environmental conditions of the built environment within design theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: Human Heritage & Cultures
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 3683 Professional Practice & Office Procedure
Description: Ethics, office practice and procedure. Contract documents and specifications relating to landscape architecture. Previously offered as LA 3682.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 3884 Landscape Construction: Site Grading
Prerequisites: LA 1323.
Description: Review mechanical drafting and lettering techniques, understanding contours, principles of stormwater runoff, site grading and earthwork calculations, methods of managing stormwater runoff, erosion control, introduction to paving and drainage construction materials, specifications, cost estimating. Computer applications and hand graphics used for projects. Previously offered as LA 3883.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4010 Special Topics in Landscape Architecture
Description: New and emerging areas of study in Landscape Architecture. Offered for variable credit, 1-4 credit hours, maximum of 9 credit hours.
Credit hours: 1-4
Contact hours: Lecture: 1-4 Contact: 1-4
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 4053 International Experience in Landscape Architecture - Asia (G)
Prerequisites: Consent of appropriate faculty member.
Description: Participation in a formal or informal educational experience related with landscape architecture in Asia.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

LA 4063 International Experience in Landscape Architecture - Peru (G)
Prerequisites: Consent of appropriate faculty member.
Description: Participation in a formal or informal educational experience related with landscape architecture in Peru.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch
General Education and other Course Attributes: International Dimension

LA 4112 Landscape Architecture Career Survey
Prerequisites: LA 2525.
Description: Examination and exposure to built works and landscape architecture professional offices with diverse practices and market niches. Targeted networking and career exploration opportunities for students. Includes a 4- to 6-day out-of-state regional field trip component, pre-trip research, and post-trip documentation. Required for fourth-year landscape architecture students.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch

LA 4423 Planning and Design for Sustainable Landscapes
Prerequisites: For LA students, LA 3894. For all other students, NREM 3013 or NREM 2013 and SOIL 2124.
Description: Explore the origins of sustainability as a basis for understanding how to improve the planning and design of natural and cultural environments in the practice of landscape architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 4433 Land Use and City Planning
Description: Land use and city planning within the framework of a municipality's comprehensive plan, zoning, and subdivision regulations that affect the development of city form. Origins of land use form as a basis for understanding how to improve the future of urban and suburban form through the practice of landscape architecture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hort & Landscape Arch

LA 4453 Principles of Landscape Analysis for Site Design
Prerequisites: LA 3515.
Description: Analysis of landscapes for design and management decision-making using real-world projects integrating computer-aided design (CAD) and geographic information systems (GIS), aerial photography, and global positioning system (GPS) technologies. Applications will be related to landscape architecture and site design.
Credit hours: 3
Contact hours: Lecture: 1 Lab: 4 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4515 Studio 6: Urban Design
Prerequisites: LA 3515.
Description: Contemporary urban issues affecting the design process, site master planning, and multi-disciplinary problem solving. Applied project will address influences on urban design, from regional influences to user behavior. Previously offered as LA 4514 and LA 5024.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 4525 Studio 7: Community Development and Neighborhood Design
Prerequisites: LA 3525 or LA 4515.
Description: Exposure to contemporary issues of community development over a range of scales including landscape planning, schematic design, and design development. Projects will address issues at multiple forms and densities. Exploration of professional office dynamics, environments, and community involvement.
Credit hours: 5
Contact hours: Lecture: 2 Lab: 9 Contact: 11
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4573 Recreation Planning
Prerequisites: Consent of instructor.
Description: Theory and methods for small and large scale area planning with emphasis on natural and cultural resources.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4894 Landscape Construction: Materials and Methods
Prerequisites: LA 1323 and LA 3884.
Description: A capstone course using design techniques, computer skills, construction materials, methods and applications for the landscape industry. Detailed computerized construction drawings of pavement, fences, walls, wood structures, and water features. Comprehensive construction documents using computer drafting, design and calculation applications. Previously offered as LA 4893.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hort & Landscape Arch

LA 4990 Landscape Architecture Special Problems
Prerequisites: Consent of appropriate faculty member.
Description: Landscape architectural related problems. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

LA 5110 Advanced Special Problems
Prerequisites: Consent of appropriate faculty member.
Description: Specific landscape architectural problems. Offered for variable credit, 1-12 credit hours, maximum of 20 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate, Undergraduate
Schedule types: Independent Study
Department/School: Hort & Landscape Arch
Additional Fees: HORT/LA Facil, Equip, Lab fee of $12 per credit hour applies.

Undergraduate Programs

- Horticulture: Horticultural Business, BSAG (p. 2640)
- Horticulture: Horticultural Food Safety, BSAG (p. 2642)
- Horticulture: Horticultural Science, BSAG (p. 2644)
- Horticulture: Landscape Management, BSAG (p. 2646)
- Horticulture: Public Horticulture, BSAG (p. 2648)
- Horticulture: Turf Management, BSAG (p. 2650)
- Horticulture: Urban Horticulture, BSAG (p. 2652)
- Landscape Architecture, BLA (p. 2654)

Graduate Programs

The department offers programs of study leading to the Master of Science degree in Horticulture (with areas of specialization including Horticultural Science, Phytochemistry and Turfgrass Science). Doctoral students can participate in multidisciplinary PhD programs in Crop Science, Environmental Science, or Food Science. Areas of study include floriculture crops, fruit and nut crops, vegetables, ornamental nursery crops, and turfgrass science. In addition to commodity-oriented specialties, students may emphasize food processing, environmental applications, water quantity and water quality, plant extraction applications, postharvest physiology, or stress physiology disciplines. Applicants should indicate their interest area(s). Research opportunities range from whole plant production/management studies to fundamental cellular studies. Additional information on programs, application procedures and financial assistance is available at: https://agriculture.okstate.edu/departments-programs/hla/.

Prerequisites

Admission requires a bachelor's degree in Horticulture, Landscape Architecture, or a related field with at least a 3.00 ("B") grade-point average. Students with coursework deficiencies in fundamental areas may be required to take remedial courses to attain proficiency in accordance with the advisory committee's guidance. In addition to Graduate College requirements, applicants must submit official GRE scores, a statement of research and career interests, and three letters of reference.

Admission to the program requires approval by the graduate committee, a departmental advisor on the Graduate Faculty, the department head, and Graduate College. The program of study and research will be directed by the student's graduate advisor and advisory committee.

Minors

- Horticulture (HORT), Minor (p. 2639)

Faculty

Justin Quetone Moss, PhD—Professor and Head
Professors: Louis Anella, PhD; Bruce Dunn, PhD; Michael Holmes, MLA; William McGlynn, PhD; Niels Maness, PhD; Dennis Martin, PhD; Cheryl Mihalko, MLA; Michael A. Schnelle, PhD
Associate Professors: Charles Fontanier, PhD; Qing Luo, MLA; Bo Zhang, PhD
Assistant Professors: JoHannah Biang, PhD; Shivani Kathi, PhD; Tyler Mason, PhD; Mingying Xiang, PhD; Lu Zhang, PhD
Senior Extension Specialists: Becky Carroll, BS; David Hillock, MS; Shelley Mitchell, PhD
Associate Extension Specialists: Casey Hentges, MS
Assistant Extension Specialists: Aaron Essary, MS
Assistant Research Professor: Shuhao Yu, PhD

Horticulture (HORT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 15

Code	Title	Hours
Minor Requirements		
HORT 1013	Principles of Horticultural Science (LN)	3
Select a minimum of 12 hours of HORT prefix courses and/or LA 3515		12
Total Hours		**15**

Other Requirements

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Horticulture: Horticultural Business, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN) [1]	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management (1 hour)	1
HORT 2513	Herbaceous Plant Materials	3
or HORT 2613	Woody Plant Materials	
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
HORT 3113	Greenhouse Management	3
MGMT 3013	Fundamentals of Management (S)	3
SPAN (3 credits)		3
Select 12 hours (9 must be upper division) from HORT		12
Select 5 hours from HORT or Ferguson College of Agriculture		5
Select 15 hours (9 must be upper division) from AGEC or the Spears School of Business. Student should consult advisor about using these credits toward a Minor.		15
Hours Subtotal		**44**
Electives		
Select 0 hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Horticultural Food Safety, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN) [1]	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2513	Herbaceous Plant Materials	3
or HORT 2613	Woody Plant Materials	
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
HORT 3113	Greenhouse Management	3
HORT 3713	Urban Horticulture Production	3
HORT 3213	Fruit and Nut Production	3
HORT 3433	Commercial Vegetable Production	3
CHEM 1225	Chemical Principles II (LN)	5
CHEM 3013	Survey of Organic Chemistry	3
MICR 2123	Introduction to Microbiology	3
FDSC 1133	Fundamentals of Food Science	3
FDSC 3123	HACCP in the Food Industry	3
FDSC 3133	Plant Sanitation for Food Processing Operations	3
FDSC 3154	Food Microbiology	4
FDSC 4143	Food Safety Modernization Act	3
FDSC 4233	Food Safety Audit Schemes	3
Select 2 hours from HORT		2
Elective		**0**
Select 0 hours to complete required total for degree		0
Hours Subtotal		**44**
Total Hours		**120**

1 College & Departmental requirements that may be used to meet General Education requirements.

2 If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block are reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Horticultural Science, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN)	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		*3*
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2513	Herbaceous Plant Materials	3
or HORT 2613	Woody Plant Materials	
HORT 3084	Plant Propagation	4
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
HORT 4963	Horticulture Physiology	3
CHEM 1225	Chemical Principles II (LN)	5
HORT 3113	Greenhouse Management	3
ANSI 3423	Animal Genetics	3
or BIOL 3023	General Genetics	
CHEM 3013	Survey of Organic Chemistry	3
or BIOC 2344	Chemistry and Applications of Biomolecules	
Related Courses		
Select 12 hours (6 must be upper-division) from Ferguson College of Agriculture		12
Select 15 hours (6 must be upper division) from HORT		15
Hours Subtotal		**44**
Electives		
Select 0 hours to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Landscape Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN) [1]	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2613	Woody Plant Materials	3
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
AST 2313	Surveying	3
HORT 2513	Herbaceous Plant Materials	3
HORT 3613	Bidding and Estimating	3
LA 1213	Visual Communication I for Landscape Architecture	3
LA 1223	Visual Communication II for Landscape Architecture	3
LA 1323	Computer-Aided Design for Landscape Architecture	3
LA 1525	Studio 1: Principles and Theory of Design	5
LA 3884	Landscape Construction: Site Grading	4
LA 4894	Landscape Construction: Materials and Methods	4
AGEC 3323	Agricultural Product Marketing and Sales	3
or AGEC 3423	Farm and Agribusiness Management	
or AGEC 3713	Agricultural Law	
or LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
ENTO 3421	Horticultural Insects	1
Hours Subtotal		**44**
Electives		
Select 0 hour to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block are reduced by 3.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Public Horticulture, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN)	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
Course designated (S)		
AGEC 1113	Introduction to Agricultural Economics (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2613	Woody Plant Materials	3
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
HORT 2513	Herbaceous Plant Materials	3
HORT 3113	Greenhouse Management	3
HORT 4713	Public Garden Management	3
PLNT 4013	Fundamentals of Weed Science	3
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
MGMT 3013	Fundamentals of Management (S)	3
Select 15 hours (6 must be upper division) from HORT		15
Select 5 hours from Ferguson College of Agriculture or PBIO		5
Select 6 upper division hours from AGEC, LSB, MKTG, or MGMT		6
Hours subtotal		**44**
Electives		
Select 0 hours to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Turf Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN)	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N) [2]	4
Select one of the following:		*3*
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2513	Herbaceous Plant Materials	3
or HORT 2613	Woody Plant Materials	
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
ENPP 3663	Turfgrass Integrated Pest Management	3
HORT 4453	Turfgrass Physiology and Ecology	3
HORT 4493	Athletic Field Management	3
HORT 4773	Applied Landscape Planning	3
or HORT 3613	Bidding and Estimating	
MGMT 3013	Fundamentals of Management (S)	3
PLNT 4013	Fundamentals of Weed Science	3
SOIL 4234	Soil Nutrient Management	4
Select 4 hours from Ferguson College of Agriculture or MGMT		4
Select one area of emphasis (p. 2) (p. 2651)		15
Hours Subtotal		**44**
Electives		
Select 0 hour to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this block are reduced by three.

Emphases

Code	Title	Hours
Soils Emphasis:		
Select 3 hours from:		3
SOIL 3433	Soil Genesis, Morphology, and Classification	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
SOIL 4893	Environmental Soil Chemistry	
Select 6 hours from:		6
SOIL 4213	Precision Agriculture	
SOIL 4363	Environmental Soil Science	
SOIL 4463	Soil and Water Conservation	
Select 6 hours from Ferguson College of Agriculture, PBIO or MGMT		6

Code	Title	Hours
Management Emphasis:		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
MGMT 3 hours upper-division		3
Select 2 hours from HORT		2

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Horticulture: Urban Horticulture, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select from one of the following:		4
BIOL 1114	Introductory Biology (LN) [1]	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
PBIO 1404	Plant Biology (LN) [1]	
HORT 1013	Principles of Horticultural Science (LN)	3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CHEM 1215	Chemical Principles I (LN)	5
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [2]	
SPCH 2713	Introduction to Speech Communication (S) [2]	
SPCH 3733	Elements of Persuasion (S) [2]	
ENTO 2993	Introduction to Entomology (LN)	3
HORT 2010	Internship in Horticulture or Landscape Management	1
HORT 2513	Herbaceous Plant Materials	3
or HORT 2613	Woody Plant Materials	
HORT 3153	Turf Management	3
or HORT 3833	Hydroponics and Soilless Crop Production	
HORT 3084	Plant Propagation	4
HORT 3513	Landscape Irrigation	3
PLP 4343	Principles of Plant Pathology	3
Hours Subtotal		**36**
Major Requirements		
HORT 3113	Greenhouse Management	3
HORT 3713	Urban Horticulture Production	3
HORT 3433	Commercial Vegetable Production	3
HORT 3213	Fruit and Nut Production	3
MGMT 3013	Fundamentals of Management (S)	3
Select 12 hours (3 must be upper division) from Ferguson College of Agriculture		12
Select 9 hours from HORT (3 must be upper division)		9
Select 8 hours (3 must be upper division) from: LSB, MKTG, MGMT, EEE, AGEC or ACCT		8
Hours Subtotal		**44**
Electives		
Select 0 or hours to complete required total for degree		0
Hours Subtotal		**0**
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as an additional (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition III above, then hours in this block are reduced by three.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.

- A 2.00 GPA or higher in upper-division hours.
- A 2.25 GPA or higher is required in courses listed in the Major Requirements column above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Landscape Architecture, BLA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 126

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1583	Applied Geometry and Trigonometry (Q) [1]	3
or MATH 1613	Trigonometry (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
LA 3673	History and Theory of Landscape Architecture (H) [1]	3
Course designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
SOIL 1113	Land, Life and the Environment (N)	3
Select any course designated both (N) and (L)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [2]	3
or ECON 2103	Introduction to Microeconomics (S)	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [1]	
SPCH 2713	Introduction to Speech Communication (S) [1]	
SPCH 3733	Elements of Persuasion (S) [1]	
Diversity (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College/Departmental Requirements		
Agricultural Sciences and Natural Resources		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
LA 1013	Introduction to Landscape Architecture	3
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Hours Subtotal		**7**
Major Requirements		
Visual Communication:		
LA 1213	Visual Communication I for Landscape Architecture	3
LA 1223	Visual Communication II for Landscape Architecture	3
LA 1323	Computer-Aided Design for Landscape Architecture	3
Construction:		
LA 3884	Landscape Construction: Site Grading	4
LA 4894	Landscape Construction: Materials and Methods	4
Planning:		
LA 2413	Ecological Landscape Design	3
LA 4433	Land Use and City Planning	3
LA 4453	Principles of Landscape Analysis for Site Design	3
Design:		
LA 1525	Studio 1: Principles and Theory of Design	5
LA 2515	Studio 2: Site Design	5
LA 2525	Studio 3: Recreation and Open Space Design	5
LA 3515	Studio 4: Landscape Planting Design	5
Select two of the following:		10
LA 3525	Studio 5: Sustainable Construction and Design	
LA 4515	Studio 6: Urban Design	
LA 3020	Long-Term Internship in Landscape Architecture	
LA 4525	Studio 7: Community Development and Neighborhood Design	5
Plant Material:		
HORT 2613	Woody Plant Materials	3
Professional Practice:		

LA 3683	Professional Practice & Office Procedure	3
LA 4112	Landscape Architecture Career Survey	2
Internship:		
LA 3010	Internship in Landscape Architecture	1
Related Courses		
Select courses from among the following in consultation with a faculty advisor for additional breadth, or to create a specialty area.		
Select 9 hours of the following:		9
AST 2313	Surveying	
Any ARCH course		
HORT 1013	Principles of Horticultural Science (LN)	
HORT 2513	Herbaceous Plant Materials	
HORT 3153	Turf Management	
HORT 3513	Landscape Irrigation	
LA 2513	Native American Symbolism in Landscape Design (D)	
LA 3020	Long-Term Internship in Landscape Architecture	
NREM 3013	Applied Ecology and Conservation	
NREM 4033	Ecology Of Invasive Species	
GEOG 3153	Conservation of Natural Resources (S)	
Hours Subtotal		**79**
Electives		
Hours Subtotal		**0**
Total Hours		**126**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (S) course above, hours in this block are reduced by three.

3

If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above, then hours in this area are zero.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

International Agriculture

The Master of International Agriculture Program is a multidisciplinary degree program, preparing students for successful careers in global agriculture. Blending theory, practical knowledge, and hands-on experience, the program prepares students to make significant contributions to the field of international agriculture. There are two degree options within the Master of International Agriculture Program: Master of Agriculture and Master of Science.

The Master of Science in International Agriculture program accommodates those students who prefer to take theoretical courses preparing them for research. This program will provide students with the theoretical, science and research backgrounds necessary to design, implement, and manage agricultural programs in developed and developing countries. It allows participants to blend theory and practice to improve the lives of people.

A Master of Agriculture in International Agriculture prepares candidates for positions in the public and private sectors related to international agricultural development and marketing. Graduates work in international agribusinesses, non-profit organizations, development agencies, government and diplomatic service, education, agricultural extension, agricultural trade associations and commodity groups, and other positions in global agriculture.

Admission Requirements

A baccalaureate degree in Agriculture or a related field is required for admission. The candidate must meet requirements for acceptance into the Graduate College and be recommended by the departmental graduate committee responsible for the program.

Degree Requirements

The requirements for this degree are the same as those listed in the Catalog, Graduate College section, under "The Master's Degree."

In addition, each candidate approved for study under this program will be assigned an advisor, who will assist the student will developing an advisory committee with whom he or she will develop a plan of study in accordance with guidelines and requirements established in the department responsible for the program.

Karl Rich, PhD—Professor and Director

Master of Agriculture in International Agriculture (MAIA)

The Master of Agriculture in International Agriculture (MAIA) is a multidisciplinary degree program that provides students with the diverse background necessary to design, implement and manage agricultural programs in developed and developing areas. The program prepares candidates for positions in the public and private sectors related to international agricultural development and marketing. Graduates work in international agribusinesses, non-profit organizations, development agencies, government and diplomatic service, education, agricultural extension, agricultural trade associations and commodity groups and other positions in global agriculture. Others pursue a personal desire to make a difference in the world by doing agricultural development work in a developing country or working in areas recovering from a natural disaster. The MAIA is for students who prefer to blend theory and practice to improve the lives of people, develop professional skills and network through an international agricultural experience, develop a focus area to support professional goals, develop broader understanding of world cultures and issues, and engage in international travel.

Two alternatives exist for satisfying requirements for the MAIA degree:

1. 36 credit hours and a creative component, or

2. 36 credit hours, including six hours for a professional internship.

A minimum of 21 credit hours must be earned at the 5000-level or above. The creative component or professional internship are expected to be in the area of international agriculture. Each student must take a minimum of 14 semester credit hours of approved core courses and a minimum of 22 semester credit hours of focus area courses. Each student is required to complete an international experience of four weeks or longer.

Master of Science in International Agriculture (MSIA)

The Master of Science in International Agriculture is designed to prepare candidates for positions in the public and private sectors related to agricultural sciences and natural resources or for continuation into a doctoral program. The MSIA accommodates those students who prefer to take theoretical courses preparing them for research. This program will provide students with the theoretical, science and research background necessary to design, implement and manage agricultural programs in developed and developing countries. It allows participants to blend theory and practice to improve the lives of people. Advanced study leading to the Master of Science degree in the field of International Agriculture prepares students for such professional careers as business analyst; international trade and development specialist; college-level educator; agricultural extension specialist; and a professional working with non-profit organizations, government sectors, and agricultural commodity groups. The program is multidisciplinary allowing students the freedom to focus on the area of study they choose.

Three alternatives exist for satisfying requirements for the MSIA degree:

1. 30 credit hours, consisting of 24 hours of coursework and six hours for a thesis

2. 32 credit hours, consisting of 30 hours of coursework and two hours of formal report

3. 32 credit hours, consisting of 30 hours of coursework and two hours for a creative component

Degree candidates are expected to conduct research related to a topic on international agriculture. The requirements include one course in statistics or quantitative/qualitative analysis and one course in research methodology. Each student is required to complete an international experience of four weeks or longer.

Courses

AGIN 5000 Master's Thesis/Report in International Agriculture
Description: For students working on a masters degree in International Agriculture. Independent research and thesis under the direction and supervision of a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5102 International Agriculture Creative Component
Prerequisites: Graduate standing or consent of instructor.
Description: Development of independent project to improve or inform an international agriculture practice based on scholarship.
Credit hours: 2
Contact hours: Contact: 2 Other: 2
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5113 Global Agricultural Development Communications
Prerequisites: Graduate Standing.
Description: Role of Information Communication Technologies in global agricultural development and the storytelling process as a communication tool for global agricultural development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5213 Global Agricultural Entrepreneurship
Prerequisites: Graduate Standing.
Description: Use of entrepreneurship principles to develop solutions to emerging and/or existing problems and challenges in global agriculture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5312 Applied Issues in International Agriculture and Natural Resources
Prerequisites: Graduate standing or consent of instructor.
Description: Applied global issues in international agriculture and natural resource development, including sustainability, food security, trade, project evaluation, and international agricultural institutions. Written and oral reports and discussion of selected topics. Previously offered as AG 5010.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5313 Global Food Security and Sustainability
Prerequisites: Graduate Standing.
Description: Broad overview of the complexity of global food systems including key challenges to security and sustainability of agricultural production now and in the future.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5333 Guided Reading in International Agriculture and Natural Resources
Prerequisites: Graduate standing or consent of Instructor.
Description: Understanding of international agricultural development objectives, challenges, and solutions to the most critical problems facing the developing world's food and agricultural systems, through readings of a set of classic and contemporary books and constructing book reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5353 Advanced Case Studies in Agricultural Marketing and International Development
Prerequisites: Consent of Instructor.
Description: Advanced real world issues in marketing and international development of agricultural and food products. Development of an understanding of issues facing policy makers, producers, consumers, and other groups in examining the costs and benefits of various international marketing, trade and development programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5413 Overview of Global Development
Prerequisites: Graduate Standing.
Description: Examines effective principles and practices of International development and provides a thorough understanding of current issues in development by guiding students to an understanding of how development issues are being approached, what methodologies are effective, and how to use the tools of development. Same course as GS 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5713 Participatory Tools and Processes for Community Engagement
Prerequisites: Graduate standing in AGIN or consent of instructor.
Description: Cultivates skills in the practical application of participatory tools and processes to interact more effectively with local communities. Provides facility in standard facilitation techniques alongside systems thinking tools to develop skills in managing group dynamics, encouraging team building, and helping groups come to consensus and sustainable decisions.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Agriculture

AGIN 5723 Participatory Systems Modeling
Prerequisites: AGIN 5713 or consent of instructor.
Description: Develops facility in the application and use of system dynamics models based on the interaction and engagement with stakeholder groups. Teaches system dynamics techniques and relevant software and applies these to various international agriculture problems. Exposes students to the theory and practice of using group model building techniques with stakeholders to enhance decision making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5800 International Agriculture Internship Experience
Prerequisites: Graduate standing or consent of instructor.
Description: Students conducting an international internship experience, under the direction and supervision of a faculty member. Previously offered as AG 5100. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Dean of Agriculture

AGIN 5801 International Agricultural Experience Proposal
Prerequisites: Consent of instructor.
Description: Students planning and preparing an international internship experience, under the direction and supervision of a faculty member.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

AGIN 5990 Advanced Studies in International Agriculture and Natural Resources
Prerequisites: Consent of Instructor.
Description: Individual or small group study and/or research in international agriculture and natural resources. Offered for variable credit, 1-12 credit hours, maximum of 15 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Dean of Agriculture

Natural Resource Ecology and Management

Faculty in the Department of Natural Resource Ecology and Management (NREM) have expertise in conducting interdisciplinary instruction, research and extension education that focuses on the natural resources of fisheries, forests, rangeland, and wildlife within and beyond the boundaries of Oklahoma. An important goal of the NREM faculty is to increase public understanding of the ecology and management of these natural resources as they relate to agriculture, forest timber and livestock production, hunting and fishing, wildlife habitat, ecotourism, other ecosystem services and the conservation of natural ecosystems.

The NREM faculty supports undergraduate and graduate programs in the general areas of fisheries, forestry, rangeland, and wildlife. The NREM curriculum prepares students to plan, implement and research the management, protection, and sustainable use of natural resources within Oklahoma and throughout the world. The department provides an integrated education in renewable natural resource management, conservation and utilization, land use policy and ethics, as well as a valuable perspective for understanding and solving critical contemporary environmental problems at local, regional, and global scales.

Courses in NREM undergraduate degree options fulfill the requirements for many applied and professional careers in the natural resource disciplines, including preparation for graduate programs, veterinary school, and certification with the Society of American Foresters. NREM also maintains strong ties to The Wildlife Society, The American Fisheries Society and The Society for Range Management. Graduates may be employed by governmental agencies, non-profit organizations, private industry, or individuals. Federal agencies hiring NREM graduates include U.S. Department of Agriculture, U.S. Forest Service, USDA-Natural Resources Conservation Service, U.S. Bureau of Land Management, U.S. Geological Survey, U.S. Fish and Wildlife Service, USDA-Agricultural Research Service, Bureau of Indian Affairs, National Park Service, Animal and Plant Health Inspection Service, and the U.S. Environmental Protection Agency. In addition, state, county, and municipal governments, including Oklahoma Forestry Service and Oklahoma Division of Wildlife Conservation, employ NREM graduates in a variety of resource management technical positions.

Natural Resource Ecology and Management Undergraduate Degree Options

Fisheries and Aquatic Ecology is designed for students with interest in the management of fish and other aquatic species populations and their habitats in streams, rivers, lakes, and ponds. Students gain the skills in research techniques and methodology in fisheries science, including habitat measurements, population sampling techniques and abundance estimation, age and growth analysis, recreational surveys, data analysis and report writing. Recreational use, sustainable management of fish populations, natural resource policy and land use ethics are additional topic areas emphasized.

Forest Ecology and Management emphasizes the science-based conservation and management of forest lands, ecosystems, and related natural resources. Students gain skills that are necessary for the measurement, assessment, valuation and development of management strategies for forests and related natural resources. Successful completion of the curriculum will provide competency in the general areas of basic science, forest biology, forest mensuration, forest plant species identification, forest economics, natural resource policy, decision-making, problem solving, and communications. This undergraduate option is accredited by the Society of American Foresters (SAF). Requirements for this option include the successful completion of field camps in May, which are scheduled to follow the sophomore and junior spring semesters and are held annually in diverse forest settings. Field forestry skills, forest ecology, integrated natural resource management, timber cruising, resource economics and land use ethics are emphasized at camp and integrated in the senior-level capstone course.

Rangeland Ecology and Management emphasizes understanding management of grasslands, shrub lands, and savannas for livestock forage production, wildlife habitat, and other ecosystem services such as carbon sequestration, soil health and off-site water yield. Courses teach the effects of wildfire, invasive species and other disturbances on biotic and abiotic processes, and strategies for restoration of damaged rangeland ecosystems. The importance of prescribed fire as a rangeland restoration tool, livestock grazing management, and the identification and value of native grass and forb species for livestock forage, wildlife food and habitat cover, and other uses are emphasized. Students learn to integrate their knowledge of soil, water, vegetation, wildlife habitat and natural resource policies into management of public or private rangelands for multiple uses.

Wildlife Ecology and Management provides insight into the biological basis for management of wildlife populations and habitats, with emphasis on current management problems. Students gain the skills in wildlife research techniques, including aging and sexing, wildlife and vegetation sampling, and wildlife population and habitat analysis through field sampling and use of wildlife population models. Students learn the fundamentals of why certain ecosystems support certain wildlife species and how these species are adapted to those environments. Recreational use, sustainable management of wildlife populations, natural resource policy and land use ethics are additional topic areas emphasized.

Wildlife Biology and Pre-Veterinary Science provides the biological and ecological background and training in natural wildlife science and population dynamics in addition to the basic sciences of anatomy and physiology necessary to prepare students for graduate education in veterinary medicine. The option combines research and management training in population ecology with basic biology, anatomy and chemistry of wildlife species. Emphasis is placed on the habitat requirements of a variety of wildlife species.

Students entering the NREM department are encouraged to join and become active members of one of many student organizations: Society of American Foresters, Society for Range Management, The Wildlife Society, and the American Fisheries Society. Participation in one or more of these organizations provides students the opportunity to attend state, regional or national meetings where they will gain valuable advantages through networking, student competitions and interacting with various career-related activities.

Courses

NREM 1012 Introduction to Natural Resource Ecology and Management
Description: Introduction to the wide variety of natural resources found globally with a focus on Oklahoma ecoregions. Overview of the ecology and management of natural resources in the pine-hardwood forest, the Cross Timbers, and the tallgrass, mixed-grass and shortgrass prairies. Academic and career options presented through guest speakers.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 1014 Introduction to Natural History (LN)
Description: The study of living organisms especially their origins, life histories, behaviors, conservation, and unique adaptations for reproducing and relating to their environment. Laboratory emphasis is on observation and investigation of the diversity and adaptations of living organisms.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt
General Education and other Course Attributes: Laboratory-Based Inquiry, Natural Science Reasoning

NREM 1113 Elements of Forestry
Description: Survey of forestry as an art, science and profession including forestry and natural resource management theory, forest distribution and ownership, history of forest resource policy development, forest protection, wildlife interactions, forest ecosystem process, current issues, and career opportunities. Previously offered as NREM 1114.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 1213 Introduction to Wood Properties and Products
Prerequisites: NREM 1113 or instructor permission
Description: Anatomical, physical and mechanical properties of solid wood and wood products. Macroscopic and microscopic identification of wood. Principles of manufacture of lumber, plywood and wood composites. Biological deterioration of wood and main wood preservation techniques. One weekend field trip required. Previously offered as NREM 1214.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2013 Ecology of Natural Resources
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) or PLNT 1213.
Description: Introductory focus on understanding and applying general ecological principles to agricultural and natural ecosystems. Emphasis on relationships between climate, soils, agricultural, and natural ecosystems. Topics include nutrient cycles, energy flow, species interactions, biological diversity, productivity, sustainability, and landscape and ecosystem management. Previously offered as RLEM 2913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 2083 Geospatial Technologies for Natural Resources
Prerequisites: MATH 1513.
Description: Principles and application of geospatial technologies for natural resource ecology and management including remote sensing (serial photography and satellite data), geographic information systems (GIS) and global positioning system (GPS) technologies. Previously offered as NREM 3083.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2113 Wood Properties, Products, & Harvesting
Description: Management and planning of timber harvesting, including products derived from wood. Harvesting techniques, safety and cost analysis. Anatomical, physical and mechanical properties of solid wood and wood products. Macroscopic and microscopic identification of wood. Manufacture of lumber and wood composites, including wood preservation to prevent deterioration. Previously offered as FOR 2002, FOR 2113 and NREM 2112.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 2134 Dendrology
Description: Identification, taxonomy and distribution of forest trees and shrubs of the United States; their environmental requirements and utilization. Previously offered as FOR 2134.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3012 Applied Ecology Laboratory
Prerequisites: NREM 3013 or concurrent, NREM major or instructor permission.
Description: Field experience aimed at navigating and working effectively and safely in the natural environment. Identification, measurement and interpretation of abiotic and biotic components to understand and describe ecosystem function and current natural resource management tools and issues. Focus on representative forest, grassland and aquatic ecosystems.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt
Additional Fees: NREM or FOR Course Field Trip fee of $46 applies.

NREM 3013 Applied Ecology and Conservation
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111), or BIOL 1604, or PBIO 1404, or PLNT 1213; Sophomore, Junior, or Senior class standing; SOIL 2124 preferred.
Description: Development of critical thinking for conservation and land management through the application of ecological concepts and theory. Principles of population, community, ecosystem and landscape ecology, with applications to management of wildlife, fisheries, forest and rangeland resources. Application of scientific method and literature to natural resource ecology and management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3063 Natural Resource Biometrics
Prerequisites: STAT 2013; and MATH 1513 or MATH 1483.
Description: Application of statistical concepts to problems in natural resource sampling and estimation including simple random sampling, stratified sampling, regression analysis, double sampling and ratio and regression estimation. Statistical analysis using spreadsheets. Applications to forest, range and wildlife management. Previously offered as NREM 3363.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3091 Field Applications of Geospatial Technologies for Natural Resources
Prerequisites: NREM 2083.
Description: Field-based use of global navigation satellite systems, geographic information systems and topographic maps to measure and interpret the environment with application to fishery, forest, range, and wildlife planning and management.
Credit hours: 1
Contact hours: Lab: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3101 Forest Resource Field Studies
Prerequisites: NREM 2134 and PBIO 1404 and SOIL 2124.
Description: One-week summer presession field experience at an off-campus site. Field study in the dynamics of forest ecosystems and related components including trees, soils, water, fauna, and associated flora as they relate to site productivity and the production of resource outputs, products, and services. Previously offered as NREM 3112.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3111 Natural Resource Field Studies
Description: One-week summer presession field experience at off-campus site. Field study, analysis, and assessment of natural resource ecosystems at multiple scales with application to integrated management of forest, wildlife, range, water, soil, and recreation resources to sustain a broad array of uses and values, and to understand associated ecological, social, policy, and ethical issues. Includes visits to private and public natural resource lands and projects. Previously offered as FOR 3103 and NREM 3103.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 3123 Forest Measurements I
Prerequisites: MATH 1513; STAT 2013 (or concurrent).
Description: Measurement of trees, forests, and forest products. Application of mensurational techniques to forest growth and productivity. Methods of forest sampling and inventory. Use of topographic maps, U.S. Public Land Survey system maps, global navigation satellite systems and mapping software. Previously offered as NREM 2103.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3133 Forest Measurements II
Prerequisites: NREM 2134 and NREM 3123.
Description: Forest-level measurements emphasizing statistical and tactical design of forest inventory methods with application and implementation in the field. Principles of forest growth and yield. Analysis, interpretation and presentation of data. Creation of professional reports. Overnight fieldtrips required. Previously offered as NREM 3102.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3143 Forest Biology
Prerequisites: PBIO 1404.
Description: The response of trees and forest ecosystems to biotic and abiotic factors. Understanding of life history traits, tree structure, and genetics as they relate to the establishment, growth, and regeneration of species. Application of physiological and ecological principles in predicting the effects of resource availability, site quality, and competition on tree growth, forest growth, and community interactions. Previously offered as NREM 4213 and FOR 4563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3153 Forest Health and Disturbance Ecology
Prerequisites: NREM 2013, or (NREM 3012 and NREM 3013), or BIOL 3034.
Description: Dynamics of ecological disturbance, resilience and recovery in forests. Natural role of fire in forest ecosystems and theory of fire behavior. Traits, population dynamics, and life cycles of major diseases and insect groups related to infestations and outbreaks that threaten forests. Previously offered as NREM 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3224 Silviculture
Prerequisites: NREM 2013, or NREM 3012 and NREM 3013, or BIOL 3034.
Description: Theory and practice of controlling forest establishment, composition, structure, and growth to achieve multiple objectives including timber production, wildlife habitat, water quality, forest health, and recreation. Principles and techniques related to regeneration, thinning, prescribed fire, and harvest methods to increase the productivity, resilience, and output of desired ecosystem services. A two-day field trip is required. Previously offered as NREM 3223.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 3502 Wildlife Law Enforcement
Prerequisites: Junior standing and consent of instructor.
Description: Survey of state and federal wildlife laws with emphasis on Oklahoma statutory and regulatory laws pertaining to wildlife. Lectures, guest lectures, videotapes and field exercises. Previously offered as COSC 3502 and ZOOL 3502.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3503 Principles of Wildlife Ecology and Management
Prerequisites: NREM 3013 or BIOL 3034 or concurrent.
Description: An introduction to the biological basis of the management of wildlife habitats and populations. Previously offered as NREM 4513, ZOOL 4513, WLDL 4513, and COSC 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3523 Fish and Wildlife Population Biology
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034 or concurrent enrollment.
Description: Dynamics of fish and wildlife populations resulting from reproduction, competition, predation, movement, and exploitation. Effects of life history patterns on population growth and management strategies. Methods for measuring distribution, abundance, survival, and growth of fish and wildlife populations. Management strategies for fish and wildlife populations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 3613 Principles of Rangeland Management
Description: Overview of the science of applying ecological principles to managing rangeland resources, including rangeland characteristics; goods and services provided by rangelands; primary threats to rangelands; North American rangeland resources; principles of grazing management and current topics in range management. Previously offered as RLEM 3913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4001 Issues In Global Change
Prerequisites: (NREM 3012 and NREM 3013) or BIOL 3034.
Description: Student led discussion to learn the causes and consequences of global change and practical implications for natural resource ecology and management.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Discussion
Department/School: Natural Res Eco & Mgmt

NREM 4013 Herbaceous Plants of the Great Plains
Description: Identification (by sight and dichotomous key), characteristics (vegetative and floral), ecological/agricultural importance, and management of important native range grasses and broadleaf plant families, genera, and species, with emphasis on rangeland management applications. May not be used for degree credit with NREM 5013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4023 Restoration Ecology
Prerequisites: 40 semester credit hours.
Description: Application of ecological theory to the practice of ecological restoration to improve populations, communities, and ecosystems degraded directly or indirectly by human activities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4033 Ecology Of Invasive Species
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111); (PBIO 1404 and BIOL 1604 recommended).
Description: Ecological principles and their application to invasive species. Population level characteristics; community and ecosystem level effects of a wide variety of taxa including microbial, fungal, plant invertebrate, and vertebrate examples. Global consequences and governmental policies/programs designed to limit the spread of invasives. Same course as ENVR 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4043 Natural Resource Administration and Policy
Prerequisites: Senior standing.
Description: Natural resource policy and legislation; ethics relating to natural resources; natural resource organizations and how they function to include structure, supervision, and financing of federal, state, and private natural resource enterprises. Previously offered as NREM 4343 and FOR 4443. May not be used for degree credit with NREM 5843.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4053 Natural Resource Recreation
Description: Ecological, historical, social and policy basis for recreational use and management of natural resources, including an analysis of planning, management, and administrative frameworks for providing a diversity of recreational opportunities, benefits, and resource values. Previously offered as NREM 4353 and FOR 4553. May not be used for degree credit with NREM 5853.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4093 Natural Resources, People and Sustainable Development (G)
Description: Relationship between people, the land, and associated natural resources in the developing world, including the ecological and cultural basis for resource use and development. Examines issues of traditional agriculture and deforestation, and explores sustainable strategies for land use, resource management, and community development. Includes two-week study abroad component. Previously offered as NREM 4393.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt
General Education and other Course Attributes: International Dimension

NREM 4234 Forest Management and Economics
Prerequisites: NREM 3133, NREM 3224 and AGEC 1113.
Description: Regulation of forest growing stock to meet financial and biological management objectives; stand level optimization; linear programming principles in harvest scheduling; timberland taxation; timberland investment criteria; risk and uncertainty in timberland investment; economics of non-market goods. Previously offered as NREM 4323.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4333 Forest Resource Management: Planning and Decision-Making
Prerequisites: NREM 4234.
Description: Integrated problem solving, to apply biological, quantitative, economic, political, and administrative principles in solving forest resource management problems. Previously offered as FOR 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4403 Wetland Ecology and Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034 or consent of instructor.
Description: Ecology, classification, restoration, and management of wetlands. Adaptations of wetland plants and animals, structure and function of wetlands, field identification of wetland plants, restoration techniques, wetland classification systems, management and conservation of wetlands, and regulatory processes. Previously offered as COSC 4403 and ZOOL 4403.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4414 Fisheries Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Techniques and principles involved in management of fishes. Field trip fee required. Previously offered as COSC 4414, ZOOL 4414, and ZOOL 4524. May not be used for degree credit with NREM 5414 or NREM 5433.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4424 Fisheries Techniques
Prerequisites: NREM 4414.
Description: Research techniques and methodology in fisheries science, including sampling design, habitat measurements, sampling gears and abundance estimation, age and growth analysis, recreational surveys, data analysis, and report writing. No credit for students with credit in NREM 5424. Previously offered as COSC 4424.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4443 Watershed Hydrology and Water Quality
Description: Processes that comprise the hydrologic cycle and how land use affects those processes and the quantity and quality of water from watersheds, focusing on surface water from forest, range and agricultural watersheds. Measurement and evaluation of water quantity and quality. Previously offered as NREM 4413 and FOR 4813.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4452 Pond Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Principles and practice of aquatic plant management, pond construction, and maintenance, fish population management, and human factors associated with pond ownership and management. No credit for students with credit in NREM 5452.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4453 Aquaculture
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Introduction to the principles of freshwater finfish production with an emphasis on warm water species. No credit for student having completed NREM 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4464 Ornithology
Prerequisites: BIOL 1604.
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. Same course as BIOL 4464. May not be used for degree credit with BIOL 5464, NREM 5564.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt
Additional Fees: NREM or FOR Course Field Trip fee of $53 applies.

NREM 4522 Wildlife Management Applications and Planning
Prerequisites: NREM 4523 or concurrent.
Description: Applications of wildlife research and monitoring techniques to inventory and assess wildlife populations. Data collection methods, habitat assessment, and management plan development. Field trips required.
Credit hours: 2
Contact hours: Lab: 4 Contact: 4
Levels: Undergraduate
Schedule types: Lab
Department/School: Natural Res Eco & Mgmt

NREM 4523 Wildlife Management Techniques
Prerequisites: NREM 3503; ENGL 3323 strongly recommended.
Description: Theoretical and conceptual basis for research and management techniques in wildlife science. Experimental design, wildlife population and habitat analysis, wildlife and vegetation sampling, habitat management techniques, and aging and sexing techniques. Previously offered as COSC 4524, COSC 4523, ZOOL 4523, NREM 4524.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4533 Wildlife Management for Game Species
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034; and NREM 3503.
Description: Life history attributes and habitat relationships of game species relative to life history strategies; conservation and management strategies for game species; and federal and state policies influencing game species management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4543 Wildlife Management for Biodiversity
Prerequisites: NREM 3013 and NREM 3503 recommended.
Description: Identification, life history, and conservation management issues affecting non-game species in North America, stressing rare, threatened, and endangered species occurring in Oklahoma. Principles of landscape ecology, wildlife management, and conservation biology applied to management scenarios aimed at recovery of rare species and biodiversity conservation at broad scales. Previously offered as COSC 4543 and ZOOL 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4603 Rangeland and Pasture Utilization
Description: Investigation of livestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. Same course as ANSI 4203. May not be used for degree credit with NREM 5603.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4613 Rangeland Resources Planning
Prerequisites: 40 semester credit hours including NREM 3613 and ANSI 3653.
Description: Inventory of ranch resources, survey and evaluation of ranch practices, and economic analysis. Development of a comprehensive ranch management plan. Managing rangeland and ranch resources in a social context. Written and oral reports. Field trips required. Same course as ANSI 4973. Previously offered as RLEM 4973 and AGRN 4973.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4741 Wildland Firefighter Training
Description: Training for Type 2 (FFT2) wildland firefighting positions with US government agencies. Provides qualifications to participate in prescribed fire and other wildland fire operations Including: ignition, control, mop-up, suppression, and monitoring.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4783 Prescribed Fire
Prerequisites: NREM 3613.
Description: When to use prescribed fire and how to use prescribed fire to accomplish specific land management objectives. Writing prescribed fire plans, policy and laws, weather, equipment, conducting burns, and post-burn mop-up. Previously offered as RLEM 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 4793 Advanced Prescribed Fire
Prerequisites: NREM 4783 or consent of instructor.
Description: Preparing fire plans and executing prescribed fires as the fireboss. No credit for both NREM 4793 and NREM 5793. Previously offered as RLEM 4993.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 4960 Undergraduate Internship
Prerequisites: Consent of instructor.
Description: Supervised internship with an approved natural resource business, government agency, or nongovernment organization, including a diversity of learning opportunities in a work environment. For every hour of credit, 45 hours of work are required. Graded on a pass-fail basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 4980 Undergraduate Research
Prerequisites: GPA of 2.50 or better and consent of instructor.
Description: Participation in faculty research or execution of a research problem formulated by the student. Previously offered as FOR 4500. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 4990 Special Topics in Natural Resource Ecology and Management
Description: Advanced topics and new developments in natural resource ecology and management. Previously offered as RLEM 4990. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5000 Master's Thesis Report
Description: Independent research planned, conducted and reported in consultation with a major professor. Previously offered as RLEM 5000. Offered for variable credit, 1-12 credit hours, max 12 (Thesis) 4 (Report).
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5013 Herbaceous Plants of the Great Plains
Description: Identification (by sight and dichotomous key), characteristics (vegetative and floral), ecological/agricultural importance, and management of important native range grasses and broadleaf plant families, genera, and species. May not be used for degree credit with NREM 4013.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5020 Graduate Seminar
Description: Special topics in Natural Resource Ecology and Management; philosophy, methods and interpretation of research. Previously offered as RLEM 5020. Offered for fixed credit, 1 credit hour, maximum of 10 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5023 Restoration Ecology
Description: Application of ecological theory to ecological restoration with the goal of improving populations, communities and ecosystems degraded directly or indirectly by human activities. Case studies and applications of ecological principles to restorations across circumstances and systems will be discussed. May not be used for degree credit with NREM 4023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5030 Special Problems in Natural Resource Ecology and Management
Description: Special problems in areas of natural resource ecology and management other than those covered in the student's thesis research. Previously offered as FOR 5030. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Lecture: 1-9 Contact: 1-9
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5033 Ecology of Invasive Species
Description: Ecological principles and their application to invasive species. Discussion of population level characteristics and community and ecosystem level effects of a wide variety of taxa including invasive microbial, fungal, plant, invertebrate, and vertebrate examples. Current global consequences and governmental policies/programs designed to limit the spread of invasives. May not be used for degree credit with NREM 4033 or ENVR 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5043 Ecology and Evolution of Symbiosis
Description: Ecology and evolution of symbiotic and mutualistic interactions in different ecosystems. Theory, current questions, and general patterns involving biotic interactions of plants and animals with other plants, animals, or microbes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5053 Global Ecology and Biogeochemistry
Description: Examines key nutrient pools and transformations in the atmosphere, soils, and hydrosphere, with an emphasis on the role of living organisms in nutrient transformations and fluxes. Emphasis placed on processes relevant to biogeochemical cycles at ecosystem and global scales in reference to aspects of global change.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5063 Production Ecology
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Mechanisms driving the growth and productivity of terrestrial ecosystems in response to resource availability, genetics, disturbance, and climate. Factors affecting the distribution and productivity of biomes, relationship between leaf area and productivity, effects of diversity on productivity, the proximal causes of increased growth associated with resource additions, and using process models to predict growth. Previously offered as NREM 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5073 Modeling Ecosystem Processes and Species Distributions
Prerequisites: Basic understanding of population ecology and statistics strongly encouraged.
Description: Theories of modeling ecosystem processes and species distributions; model building; applying models with real data. No prior modeling experience is expected. Basic understanding of ecology and statistics strongly encouraged.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5083 Applied Landscape Ecology
Description: Advanced ecology and management of grasslands, shrublands, and forests. Understanding the effects of grazing, fire and other disturbances on biotic and abiotic processes. Vegetation dynamics, wildlife habitat evaluation, woody plant encroachment, rangeland monitoring, and landscape ecology. Field trips required at additional cost to students. Previously offered as NREM 5054.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5130 Topics In Forestry
Description: Advanced study on special topics in forestry. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 5133 Advanced Topics in Forest Biometrics
Prerequisites: NREM 3063 or equivalent; STAT 5013 concurrently or equivalent.
Description: Quantitative description of forest populations and methods for modeling forest growth and development. Sampling techniques for forest populations. Previously offered as FOR 5053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5193 Spatial and Non-Spatial Database Management
Prerequisites: One course in statistics and programming experience.
Description: Methods of acquiring, managing and analyzing spatial data using geographic information systems. Management of non-spatial data using relational database managers. Development of applications using these tools for evaluating and managing natural resources. Previously offered as SOIL 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5234 Forest Management and Economics
Description: Regulation of forest growing stock to meet financial and biological management objectives; stand level optimization; linear programming principles in harvest scheduling; timberland taxation; timberland investment criteria; risk and uncertainty in timberland investment; economics of non-market goods. May not be used for degree credit with NREM 4234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5313 Human Dimensions of Natural Resources
Description: Principles and applications of managing natural resources in the human social context. Importance of sociology to natural resource management, design of human dimension studies related to use of forest, wildlife, fish, and range resources, complexities and challenges of balancing natural resource sustainability with human needs, and the role of leadership, education, and communication in addressing human-natural resource needs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5333 Forest Recourse Management: Planning and Decision-Making
Prerequisites: NREM 4234.
Description: Integrated problem solving, to apply biological, quantitative, economic, political, and administrative principles in solving forest resource management problems. May not be used for degree credit with NREM 4333.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5403 Advanced Wetland Ecology
Prerequisites: A course in aquatic ecology or wetland management recommended.
Description: Principles and theory of wetland ecology with a focus on wetland processes, functions, and services. Topics include wetland geomorphology, biogeochemistry and hydrology of wetlands, wetland functions and services, wetland development, wetland restoration, water issues, wetland policy, philosophy of wetland management, and educating society about wetlands. Same course as BIOL 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5414 Fisheries Management
Prerequisites: NREM 3012 and NREM 3013, or BIOL 3034.
Description: Techniques and principles involved in management of fishes. Field trip fee required. May not be used for degree credit with NREM 4414 or NREM 5433.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5424 Fisheries Techniques
Prerequisites: NREM 4414.
Description: Research techniques and methodology in fisheries science, including sampling design, habitat measurements, sampling gears and abundance estimation, age and growth analysis, recreational surveys, data analysis and report writing. No credit for students with credit in NREM 4424. Previously offered as COSC 5424.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 4 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5430 Special Topics in Fisheries
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in fisheries. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5433 Fisheries Science
Prerequisites: NREM 4414 or equivalent or consent of instructor.
Description: Principles of fisheries science as they relate to fish and aquatic biota, their habitats, and the humans who utilize them. Previously offered as COSC 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5443 Watershed Hydrology and Water Quality
Description: Processes that comprise the hydrologic cycle and how land use affects those processes and the quantity and quality of water from watersheds, focusing on surface water from forest, range and agricultural watersheds. Measurement and evaluation of water quantity and quality. Intended for graduate students new to the water resources field. No credit for students having completed NREM 4443.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5452 Pond Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Principles and practice of aquatic plant management, pond construction and maintenance, fish population management, and human factors associated with pond ownership and management. No credit for students with degree credit in NREM 4452.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5453 Aquaculture
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Introduction to the principles of freshwater finfish production with an emphasis on warm water species. No credit for student having completed NREM 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5473 Stream Ecology
Prerequisites: Course in ecology strongly recommended.
Description: Ecology of streams and rivers, physical and chemical properties, biotic assemblages and interactions, ecosystem processes and theories and human impact. Two day field trip required at additional costs to students. Previously offered as NREM 5464.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5483 Ecohydrology
Prerequisites: Ecology course strongly recommended.
Description: Concepts, framework and challenges in ecohydrology. Soil water control on vegetation structure, function and distribution. Vegetation feedback on water budget in water limited ecosystems. Ecological and hydrological interaction associated with land use, land cover change and climate variability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5493 Social Dimensions in Aquatic Ecology
Prerequisites: Consent of instructor.
Description: Role of humans as implementers of policy, as users of resources, and as scientists in aquatic ecology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5513 Applied Wildlife Behavior
Description: Importance of wildlife behavior to Individual survival, reproduction, and implications for population ecology, community ecology, conservation, and management. Wildlife Is broadly defined In this class; topics Include habitat selection, dispersal, & migration.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5523 Population Ecology
Prerequisites: BIOL 3034, MATH 1513.
Description: Theory and principles of predicting and analyzing population abundance and dynamics. Life history theory, foraging theory, habitat selection, population genetics, and species interactions. Same course as BIOL 5523.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5530 Special Topics in Wildlife
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in Wildlife. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5533 Occupancy Modeling of Animal Populations
Description: Theory and practice for the use of occupancy modeling in natural resource management and ecological research. Topics covered include estimation of encounter probabilities, study design considerations, single-species single-season models, multi-season models, multi-state models, multi-scale models, false-positive models, and multi-species models.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5564 Ornithology
Description: Classification, evolution, distribution, identification, life histories, and morphological, ecological, and behavioral adaptations of birds. Two weekend field trips required. May not be used for degree credit with BIOL 4464, NREM 4464. Previously offered as BIOL 5464.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 3 Contact: 6
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5603 Rangeland and Pasture Utilization
Description: Investigation of lifestock and forage interactions that impact productivity in the utilization of rangeland and improved pastures. May not be used for degree credit with ANSI 4203 or NREM 4603.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5630 Special Topics in Rangeland Science
Prerequisites: Consent of instructor.
Description: Advanced study on special topics in rangeland science. Previously offered as NREM 5660. Offered for variable credit, 1-3 credit hours, maximum of 9 hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5673 Rangeland Resources Watershed Management
Description: Management of anthropogenic activities and physical/biological functions or processes on water and rangeland watersheds. Emphasizes preventative and restorative strategies in a natural resource rangeland setting. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5682 Grassld Plant Identification
Prerequisites: Consent of instructor.
Description: Study and identification of plants that have ecological and/or agricultural importance in the Great Plains. Grassland ecosystems and plant characteristics including forage value, palatability, and utilization by both domestic livestock and wildlife. Cultural and historical uses of grassland. Course available online only through distance education.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5683 Grazing Ecology and Management
Prerequisites: Graduate standing.
Description: Ecological principles of livestock grazing and applications to grazing land management for production and conservation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5692 Grassland Monitoring and Assessment.
Description: Vegetation sampling theory and plot selection. Quantitative measures used in vegetation analysis, root growth, and utilization. Use of the similarity index, and plant community health and trends for grassland monitoring and assessment. Course available online only through distance education.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5693 Principles of Forage Quality and Evaluation to Ruminate
Prerequisites: Consent of instructor.
Description: Chemical characteristics of forage components and the laboratory procedures used to evaluate forages for grazing livestock. Interactions with ruminant physiology and digestion that influence forage feeding value. Students should have a strong background in the basic principles of chemistry, ruminant nutrition, and plant physiology. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5713 Grassland Fire Ecology
Description: Ecological effects of fire on grassland ecosystems. Examination of the history of fire, societal use of fire, fire behavior in relation to fuel and weather, and conducting and safety of prescribed burns. Course available online only through distance education.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5723 Ecol Fire Dependent Ecosystems
Prerequisites: Any ecology course.
Description: Role of fire and the interactions with land use, weather, and climate change in fire-dependent ecosystems. Responses of species composition, diversity, annual net primary productivity, nutrient cycling, and ecosystem management in diverse ecosystems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5783 Prescribed Fire
Description: When to use prescribed fire and how to use prescribed fire to accomplish specific land management objectives. Writing prescribed fire plans, policy and laws, weather, equipment, conducting burns, and post-burn mop-up. Field trips required. Previously offered as RLEM 5983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5793 Advanced Prescribed Fire
Prerequisites: NREM 4783 or consent of instructor.
Description: Preparing fire plans and executing prescribed fires as the fireboss. No credit for both NREM 4793 and NREM 5793. Previously offered as RLEM 5993.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 3 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Natural Res Eco & Mgmt

NREM 5843 Natural Resource Administration and Policy
Description: Natural resource policy and legislation; ethics relating to natural resources; natural resource organizations and how they function to include structure, supervision, and financing of federal, state, and private natural resource enterprises. May not be used for degree credit with NREM 4043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 5853 Natural Resource Recreation
Description: Ecological, historical, social and policy basis for recreational use and management of natural resources, including an analysis of planning, management, and administrative frameworks for providing a diversity of recreational opportunities, benefits, and resource values. May not be used for degree credit with NREM 4053.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

NREM 6000 Doctoral Dissertation
Description: Independent research planned, conducted and reported in consultation with major professor. Previously offered as RLEM 6000. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Graduate
Schedule types: Independent Study
Department/School: Natural Res Eco & Mgmt

NREM 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Previously offered as RLEM 6010. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Natural Res Eco & Mgmt

Undergraduate Programs

- Natural Resource Ecology & Management: Fisheries & Aquatic Ecology, BSAG (p. 2674)
- Natural Resource Ecology & Management: Forest Ecology & Management, BSAG (p. 2676)
- Natural Resource Ecology & Management: Rangeland Ecology & Management, BSAG (p. 2678)
- Natural Resource Ecology & Management: Wildlife Biology & Preveterinary Science, BSAG (p. 2681)
- Natural Resource Ecology & Management: Wildlife Ecology & Management, BSAG (p. 2684)

Graduate Programs

The Department offers MS and PhD degrees in Natural Resource Ecology and Management with specializations in Fisheries and Aquatic Ecology, Forest Resources, Rangeland Ecology and Management, and Wildlife Ecology and Management. The NREM department also houses the Oklahoma Cooperative Fish and Wildlife Research Unit (OKCFWRU) that provides funding and mentoring for some NREM graduate students in fisheries and wildlife topic areas. In addition, students may work toward MS and PhD degrees in the Environmental Science Graduate Program and the PhD degree in the Plant Science Graduate Program with faculty members from the Department.

The overall goals of the Department's graduate program are to provide high-quality advanced training and instruction in the application of the scientific method to problems in natural resource ecology and management. This includes problem analysis and identification, research methods, statistical analysis and/or modeling, synthesis of results, and dissemination of findings through publications and presentations. The Department strives to develop the capability for original and creative work under the guidance of established professionals and scientists. Graduate instruction is a critical component of the research, instruction, and Extension missions of the Department.

Students work directly with a member of the NREM faculty to design a program of study to serve individual career goals. The prerequisite for graduate study in the Department is a bachelor's degree in an area aligned with the student's research interests with a minimum overall

GPA of 3.00. Please refer to the website https://agriculture.okstate.edu/departments-programs/natural-resource/ for a full description of the application process. A student must be accepted by a member of the Department's faculty prior to official admission to the program.

Minors

- Fisheries and Aquatic Ecology (FAEC), Minor (p. 2672)
- Forestry (FOR), Minor (p. 2673)
- Natural Resource Ecology and Management (NREM), Minor (p. 2686)
- Rangeland Ecology and Management (REM), Minor (p. 2687)
- Wildlife Ecology (WLEC), Minor (p. 2688)

Faculty

Robert J. (Jim) Ansley Jr., PhD—Professor and Head
Regents Professors: Samuel D. Fuhlendorf, PhD
Professors: Kevin Allen, PhD; Craig A. Davis, PhD; Scott R. Loss, PhD; Daniel E. Shoup, PhD; Chris Zou, PhD
Associate Professors: W. Sue Fairbanks, PhD; Laura E. Goodman, PhD; Omkar Joshi, PhD; Timothy J. O'Connell, PhD
Assistant Professors: Colter Chitwood, PhD; Ryan DeSantis, PhD; Aalap Dixit, PhD; Bryan D. Murray, PhD; Mark Turner, PhD; Jia Yang, PhD; Lu Zhai, PhD
Adjunct Faculty in the Oklahoma Cooperative Fish and Wildlife Research Unit: James Long, PhD; Robert Lonsinger, PhD
Non-Tenure Track Faculty: Anna K. Moeller, PhD; John R. Weir, MS

Fisheries and Aquatic Ecology (FAEC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 22

Code	Title	Hours
Minor Requirements		
BIOL 4434	Limnology	4
NREM 3013	Applied Ecology and Conservation	3
NREM 4403	Wetland Ecology and Management	3
or NREM 4424	Fisheries Techniques	
NREM 4414	Fisheries Management	4
Select 8 hours of the following:		8
BIOL 4413	Biology of Fishes	
ENTO 4484	Aquatic Entomology	
NREM 3012	Applied Ecology Laboratory	
NREM 4403	Wetland Ecology and Management	
or NREM 4424	Fisheries Techniques	
NREM 4452	Pond Management	
NREM 4453	Aquaculture (if not previously used)	
Total Hours		**22**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Forestry (FOR), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 23

Code	Title	Hours
Minor Requirements		
NREM 1113	Elements of Forestry	3
NREM 2134	Dendrology	4
NREM 3013	Applied Ecology and Conservation	3
NREM 3123	Forest Measurements I	3
NREM 3224	Silviculture	4
Select a minimum of 6 additional hours (at least three hours must be upper-division) of the following:		6
NREM 2113	Wood Properties, Products, & Harvesting	
NREM 3012	Applied Ecology Laboratory	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3143	Forest Biology	
NREM 4234	Forest Management and Economics	
NREM 4333	Forest Resource Management: Planning and Decision-Making	
NREM 4443	Watershed Hydrology and Water Quality	
Total Hours		**23**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Natural Resource Ecology & Management: Fisheries & Aquatic Ecology, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College Requirements		
CHEM 1215	Chemical Principles I (LN)	4
or CHEM 1314	Chemistry I (LN)	
Written and Oral Communications		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following: [4]		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S)	
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Select one of the following:		4
ENTO 4484	Aquatic Entomology	
SOIL 2124	Fundamentals of Soil Science (N)	
NREM 3013	Applied Ecology and Conservation	3
Departmental Requirements		
Select one of the following:		4
BIOL 1604	Animal Biology	
NREM 2134	Dendrology	
NREM 1012	Introduction to Natural Resource Ecology and Management	2
NREM 2083	Geospatial Technologies for Natural Resources	3
NREM 3012	Applied Ecology Laboratory	2
NREM 3503	Principles of Wildlife Ecology and Management	3
NREM 4001	Issues In Global Change	1
NREM 4043	Natural Resource Administration and Policy	3
PBIO 1404	Plant Biology (LN)	4
Hours Subtotal		**40**
Major Requirements		
Core Courses		
ANSI 3423	Animal Genetics	3
BIOL 4413	Biology of Fishes	3
BIOL 4434	Limnology	4
CHEM 1225	Chemical Principles II (LN)	5
or CHEM 1515	Chemistry II (LN)	
Select one of the following: [2]		4
GEOL 1114	Physical Geology (LN)	
PHYS 1014	Descriptive Physics (N)	
NREM 3523	Fish and Wildlife Population Biology	3
NREM 4414	Fisheries Management	4
NREM 4424	Fisheries Techniques	4
NREM 4443	Watershed Hydrology and Water Quality	3
NREM 4452	Pond Management	2

NREM 4453	Aquaculture	3
STAT 3013	Intermediate Statistical Analysis	3
or STAT 4013	Statistical Methods I (Q)	
Related Courses		
Select one of the following administration, policy & law classes:		2
AGEC 3503	Natural Resource Economics	
AGEC 3723	Environmental Law for Agriculture and Natural Resources	
ENVR 4512	Introduction to National Environmental Policy Act	
GEOG 3153	Conservation of Natural Resources (S)	
HIST 4523	American Environmental History (H)	
NREM 3502	Wildlife Law Enforcement	
NREM 4053	Natural Resource Recreation	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4433	Environmental Sociology (S)	
Select 2 hours of the following or of other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area: [5]		2
ANSI 3543	Principles of Animal Nutrition	
BIOL 3114	Vertebrate Zoology	
BIOL 3153	Animal Behavior	
BIOL 3513	Principles of Conservation Biology	
BIOL 4113	Conservation Genetics	
BIOL 4133	Evolution	
BIOL 4174	Mammalogy	
BIOL 4303	Organismal Ecotoxicology	
BIOL 4363	Principles of Toxicology	
ENVR 4512	Introduction to National Environmental Policy Act	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
NREM 3063	Natural Resource Biometrics	
NREM 3091	Field Applications of Geospatial Technologies for Natural Resources	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3143	Forest Biology	
NREM 3224	Silviculture	
NREM 3502	Wildlife Law Enforcement	
NREM 3613	Principles of Rangeland Management	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (G)	
NREM 4403	Wetland Ecology and Management	
NREM 4522	Wildlife Management Applications and Planning	
NREM 4523	Wildlife Management Techniques	
NREM 4533	Wildlife Management for Game Species	
NREM 4543	Wildlife Management for Biodiversity	
NREM 4960	Undergraduate Internship	
NREM 4980	Undergraduate Research	
NREM 4990	Special Topics in Natural Resource Ecology and Management	
PBIO 4005	Field Botany	
Hours Subtotal		**45**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**125**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (N) course above, then hours are reduced by course hours.

3

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as (S) course above, then hours are reduced by three.

5

May not use a course used above in Core Courses. Also may not use the same class for credit in both groups below.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Natural Resource Ecology & Management: Forest Ecology & Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College Requirements		
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4]	
SPCH 2713	Introduction to Speech Communication (S) [4]	
SPCH 3733	Elements of Persuasion (S) [4]	
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Select one of the following:		4
SOIL 2124	Fundamentals of Soil Science (N)	
ENTO 4484	Aquatic Entomology	
NREM 3013	Applied Ecology and Conservation	3
Departmental Requirements		
Select one of the following:		4
BIOL 1604	Animal Biology	
NREM 2134	Dendrology	
NREM 1012	Introduction to Natural Resource Ecology and Management	2
NREM 2083	Geospatial Technologies for Natural Resources	3
NREM 3012	Applied Ecology Laboratory	2
NREM 3503	Principles of Wildlife Ecology and Management	3
NREM 4001	Issues In Global Change	1
NREM 4043	Natural Resource Administration and Policy	3
PBIO 1404	Plant Biology (LN)	4
Hours Subtotal		**40**
Major Requirements		
Core Courses		
NREM 1113	Elements of Forestry	3
NREM 2113	Wood Properties, Products, & Harvesting	3
NREM 3091	Field Applications of Geospatial Technologies for Natural Resources	1
NREM 3101	Forest Resource Field Studies	1
NREM 3111	Natural Resource Field Studies	1
NREM 3123	Forest Measurements I	3
NREM 3133	Forest Measurements II	3
NREM 3143	Forest Biology	3
NREM 3153	Forest Health and Disturbance Ecology	3
NREM 3224	Silviculture	4
NREM 4234	Forest Management and Economics	4
NREM 4333	Forest Resource Management: Planning and Decision-Making	3

NREM 4443	Watershed Hydrology and Water Quality	3
Select one of the following:		3
NREM 3613	Principles of Rangeland Management	
NREM 4053	Natural Resource Recreation	
NREM 4414	Fisheries Management	
Related Courses		
Select 7 hours of the following or of other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area: [5]		7
ACCT 2003	Survey of Accounting	
AGEC 3423	Farm and Agribusiness Management	
BIOL 3513	Principles of Conservation Biology	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3461	Insects in Forest Ecosystems	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOL 1114	Physical Geology (LN)	
HORT 2613	Woody Plant Materials	
HORT 3013	Arboriculture	
LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
NREM 3063	Natural Resource Biometrics	
NREM 3502	Wildlife Law Enforcement	
NREM 3613	Principles of Rangeland Management	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (G)	
NREM 4403	Wetland Ecology and Management	
NREM 4414	Fisheries Management	
NREM 4452	Pond Management	
NREM 4453	Aquaculture	
NREM 4533	Wildlife Management for Game Species	
NREM 4543	Wildlife Management for Biodiversity	
NREM 4741	Wildland Firefighter Training	
NREM 4783	Prescribed Fire	
NREM 4793	Advanced Prescribed Fire	
NREM 4960	Undergraduate Internship	
NREM 4980	Undergraduate Research	
NREM 4990	Special Topics in Natural Resource Ecology and Management	
PHYS 1114	College Physics I (LN)	
PLP 3343	Principles of Plant Pathology	
SOIL 4463	Soil and Water Conservation	
Hours Subtotal		**45**

Electives	
Select 0 hours or hours to complete required total for degree	0
Total Hours	**125**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (N) course above, then hours are reduced by course hours.

3

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as (S) course above, then hours are reduced by three.

5

May not use a course used above in Core Courses.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Natural Resource Ecology & Management: Rangeland Ecology & Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College Requirements		
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Natural Sciences		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4]	
SPCH 2713	Introduction to Speech Communication (S) [4]	
SPCH 3733	Elements of Persuasion (S) [4]	
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Select one of the following:		4
SOIL 2124	Fundamentals of Soil Science (N)	
ENTO 4484	Aquatic Entomology	
NREM 3013	Applied Ecology and Conservation	3
Departmental Requirements		
Select one of the following:		4
BIOL 1604	Animal Biology	
NREM 2134	Dendrology	
NREM 1012	Introduction to Natural Resource Ecology and Management	2
NREM 2083	Geospatial Technologies for Natural Resources	3
NREM 3012	Applied Ecology Laboratory	2
NREM 3503	Principles of Wildlife Ecology and Management	3
NREM 4001	Issues In Global Change	1
NREM 4043	Natural Resource Administration and Policy	3
PBIO 1404	Plant Biology (LN)	4
Hours Subtotal		**40**
Major Requirements		
Core Courses		
ANSI 3543	Principles of Animal Nutrition	3
CHEM 1225	Chemical Principles II (LN) [2]	5
or CHEM 1515	Chemistry II (LN)	
NREM 3063	Natural Resource Biometrics	3
NREM 3613	Principles of Rangeland Management	3
NREM 4023	Restoration Ecology	3
NREM 4033	Ecology Of Invasive Species	3
NREM 4443	Watershed Hydrology and Water Quality	3
NREM 4603	Rangeland and Pasture Utilization	3
NREM 4613	Rangeland Resources Planning	3
NREM 4783	Prescribed Fire	3
PBIO 4005	Field Botany	5

SOIL 3433	Soil Genesis, Morphology, and Classification	3
Related Courses		
Select 5 hours of the following or of other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area: [5]		5
AGEC 3423	Farm and Agribusiness Management	
AGEC 3503	Natural Resource Economics	
ANSI 1021 & ANSI 1023	Introduction to the Animal Sciences Lab and Introduction to the Animal Sciences	
or ANSI 1124	Introduction to the Animal Sciences	
ANSI 3423	Animal Genetics	
ANSI 3433	Animal Breeding	
ANSI 3653	Applied Animal Nutrition	
ANSI 4613	Beef Cow-Calf Management	
BIOL 3034	General Ecology	
BIOL 3513	Principles of Conservation Biology	
BIOL 4113	Conservation Genetics	
BIOL 4133	Evolution	
BIOL 4174	Mammalogy	
BIOL 4303	Organismal Ecotoxicology	
BIOL 4413	Biology of Fishes	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 4223	Ecological Methodology	
ENVR 1113	Elements of Environmental Science (N)	
ENVR 4512	Introduction to National Environmental Policy Act	
GEOG 3023	Climatology (N)	
GEOG 3033	Meteorology (N)	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 3333	Spatial Analysis (Q)	
GEOG 4053	Biogeography, Biodiversity, and Humankind	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
GEOL 3503	Environmental Geology (N)	
NREM 2134	Dendrology	
NREM 3091	Field Applications of Geospatial Technologies for Natural Resources	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3143	Forest Biology	
NREM 3153	Forest Health and Disturbance Ecology	
NREM 3224	Silviculture	
NREM 3502	Wildlife Law Enforcement	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (G)	
NREM 4403	Wetland Ecology and Management	
NREM 4452	Pond Management	
NREM 4453	Aquaculture	
NREM 4464	Ornithology	
NREM 4522	Wildlife Management Applications and Planning	
NREM 4523	Wildlife Management Techniques	
NREM 4533	Wildlife Management for Game Species	
NREM 4543	Wildlife Management for Biodiversity	
NREM 4741	Wildland Firefighter Training	
NREM 4793	Advanced Prescribed Fire	
NREM 4960	Undergraduate Internship	
NREM 4980	Undergraduate Research	
NREM 4990	Special Topics in Natural Resource Ecology and Management	
PBIO 3024	Plant Diversity	
PBIO 3114	Plant Taxonomy	
PBIO 4463	Plant Physiology	
PLP 3343	Principles of Plant Pathology	
PLNT 1213	Introduction to Plant and Soil Systems (N)	
POLS 4593	Natural Resources and Environmental Policy	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
Hours Subtotal		**45**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**125**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (N) course above, then hours are reduced by course hours.

3

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as (S) course above, then hours are reduced by three.

5

May not use a course used above in Core Courses.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Natural Resource Ecology & Management: Wildlife Biology & Preveterinary Science, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 130

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 2103	Business Calculus (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College Requirements		
CHEM 1314	Chemistry I (LN) [2]	4
or CHEM 1215	Chemical Principles I (LN)	
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4]	
SPCH 2713	Introduction to Speech Communication (S) [4]	
SPCH 3733	Elements of Persuasion (S) [4]	
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Select one of the following:		4
SOIL 2124	Fundamentals of Soil Science (N)	
ENTO 4484	Aquatic Entomology	
NREM 3013	Applied Ecology and Conservation	3
Departmental Requirements		
Select one of the following:		4
BIOL 1604	Animal Biology	
NREM 2134	Dendrology	
NREM 1012	Introduction to Natural Resource Ecology and Management	2
NREM 2083	Geospatial Technologies for Natural Resources	3
NREM 3012	Applied Ecology Laboratory	2
NREM 3503	Principles of Wildlife Ecology and Management	3
NREM 4001	Issues In Global Change	1
NREM 4043	Natural Resource Administration and Policy	3
PBIO 1404	Plant Biology (LN) [2]	4
Hours Subtotal		**40**
Major Requirements		
Core Courses		
ANSI 3543	Principles of Animal Nutrition	3
Select one of the following:		3
BIOC 3653	Survey of Biochemistry	
BIOC 3713	Biochemistry I	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
BIOL 3023	General Genetics	3
CHEM 1515	Chemistry II (LN) [2]	5
Select one of the following:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
or		

CHEM 3053 & CHEM 3153 & CHEM 3112	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Laboratory	
NREM 4523	Wildlife Management Techniques	3
BIOL 3204	Physiology	4
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
PHYS 1114	College Physics I (LN) [2]	4
PHYS 1214	College Physics II (LN) [2]	4
Related Courses		
Select courses from among the options, or other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area [5]		11
Select an option (p. 2682)		
Hours Subtotal		**50**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**130**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (N) course above, then hours are reduced by course hours.

3

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as (S) course above, then hours are reduced by three.

5

May not use a course used above in Core Courses.

Options

Option 1

Code	Title	Hours
Select two of the following:		7
NREM 4464	Ornithology	
BIOL 4184	Herpetology	
BIOL 4413	Biology of Fishes	
BIOL 4174	Mammalogy	
Select 4 hours of the following:		4
AG 3010	Internships in Agriculture	
ANSI 1021 & ANSI 1023	Introduction to the Animal Sciences Lab and Introduction to the Animal Sciences	
or ANSI 1124	Introduction to the Animal Sciences	
ANSI 3444	Animal Reproduction	
ANSI 3653	Applied Animal Nutrition	
ANSI 3753	Basic Nutrition for Pets	
BIOC 3713	Biochemistry I [3]	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
BIOC 3813	Biochemistry II	
BIOL 3114	Vertebrate Zoology	
BIOL 3153	Animal Behavior	
BIOL 3163	Environmental Biology	
BIOL 3513	Principles of Conservation Biology	
BIOL 4104	General Parasitology	
BIOL 4113	Conservation Genetics	
BIOL 4215	Mammalian Physiology	
BIOL 4273	Environmental Physiology	
BIOL 4283	Endocrinology	
BIOL 4293	Behavioral Neuroendocrinology	
BIOL 4303	Organismal Ecotoxicology	
BIOL 4363	Principles of Toxicology	
ENTO 2993	Introduction to Entomology (LN)	
ENTO 3003	Livestock Entomology	
ENTO 4854	Medical and Veterinary Entomology	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
MICR 3033	Cell and Molecular Biology	
MICR 3143	Medical Mycology	
MICR 3223	Advanced Microbiology	
MICR 4123	Virology	
NREM 3091	Field Applications of Geospatial Technologies for Natural Resources	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3143	Forest Biology	
NREM 3153	Forest Health and Disturbance Ecology	
NREM 3224	Silviculture	
NREM 3502	Wildlife Law Enforcement	
NREM 3613	Principles of Rangeland Management	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4093	Natural Resources, People and Sustainable Development (G)	
NREM 4403	Wetland Ecology and Management	
NREM 4414	Fisheries Management	
NREM 4424	Fisheries Techniques	
NREM 4452	Pond Management	
NREM 4453	Aquaculture	
NREM 4464	Ornithology	
NREM 4522	Wildlife Management Applications and Planning	
NREM 4533	Wildlife Management for Game Species	
NREM 4543	Wildlife Management for Biodiversity	
NREM 4613	Rangeland Resources Planning	
NREM 4783	Prescribed Fire	
NREM 4793	Advanced Prescribed Fire	
NREM 4960	Undergraduate Internship	
NREM 4980	Undergraduate Research	

NREM 4990	Special Topics in Natural Resource Ecology and Management
PBIO 4005	Field Botany
PLNT 1213	Introduction to Plant and Soil Systems (N)

Option 2

Complete the first year of professional program.

With the approval of the advisor, department head, and dean, a maximum of 11 hours from an accredited dental, medical, optometry, osteopathic, pharmacy, podiatry, or veterinary medical school may be used to complete hours.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Natural Resource Ecology & Management: Wildlife Ecology & Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) [1]	3
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Select four hours from the following:		4
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN) [1]	
BIOL 1114	Introductory Biology (LN) [1]	
Course designated (N)		2
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 4 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 4 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		4
Hours Subtotal		**40**
College Requirements		
CHEM 1215	Chemical Principles I (LN) [2]	4
or CHEM 1314	Chemistry I (LN)	
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
ENGL 3323	Technical Writing [3]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S) [4]	
SPCH 2713	Introduction to Speech Communication (S) [4]	
SPCH 3733	Elements of Persuasion (S) [4]	
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Select one of the following:		4
SOIL 2124	Fundamentals of Soil Science (N)	
ENTO 4484	Aquatic Entomology	
NREM 3013	Applied Ecology and Conservation	3
Departmental Requirements		
Select one of the following:		4
BIOL 1604	Animal Biology	
NREM 2134	Dendrology	
NREM 1012	Introduction to Natural Resource Ecology and Management	2
NREM 2083	Geospatial Technologies for Natural Resources	3
NREM 3012	Applied Ecology Laboratory	2
NREM 3503	Principles of Wildlife Ecology and Management	3
NREM 4001	Issues In Global Change	1
NREM 4043	Natural Resource Administration and Policy	3
PBIO 1404	Plant Biology (LN) [2]	4
Hours Subtotal		**40**
Major Requirements		
Core Courses		
ANSI 3423	Animal Genetics	3
CHEM 1225	Chemical Principles II (LN) [2]	5
or CHEM 1515	Chemistry II (LN)	
NREM 3523	Fish and Wildlife Population Biology	3
NREM 4522	Wildlife Management Applications and Planning	2
NREM 4523	Wildlife Management Techniques	3
NREM 4533	Wildlife Management for Game Species	3
NREM 4543	Wildlife Management for Biodiversity	3
PBIO 4005	Field Botany	5
Select one of the following:		3
NREM 4403	Wetland Ecology and Management	
NREM 4414	Fisheries Management	

BIOL 4413	Biology of Fishes	
Select two of the following:		8
BIOL 4174	Mammalogy	
BIOL 4184	Herpetology	
NREM 4464	Ornithology	
Related Courses		
Select one of the following administration, policy & law classes:		2
AGEC 3503	Natural Resource Economics	
AGEC 3723	Environmental Law for Agriculture and Natural Resources	
ENVR 4512	Introduction to National Environmental Policy Act	
GEOG 3153	Conservation of Natural Resources (S)	
HIST 4523	American Environmental History (H)	
NREM 3502	Wildlife Law Enforcement	
NREM 4053	Natural Resource Recreation	
POLS 4363	Environmental Law And Policy	
POLS 4593	Natural Resources and Environmental Policy	
SOC 4433	Environmental Sociology (S)	
Select 5 hours of the following or of other courses in consultation with a faculty advisor for additional breadth, or to create a specialty emphasis area: [5]		5
ANSI 3543	Principles of Animal Nutrition	
ANSI 3653	Applied Animal Nutrition	
BIOL 3153	Animal Behavior	
BIOL 3513	Principles of Conservation Biology	
BIOL 4113	Conservation Genetics	
BIOL 4133	Evolution	
BIOL 4413	Biology of Fishes	
ENTO 2993	Introduction to Entomology (LN)	
ENVR 4512	Introduction to National Environmental Policy Act	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 4333	Remote Sensing	
GEOG 4343	Geographic Information Systems: Resource Management Applications	
NREM 2134	Dendrology	
NREM 3063	Natural Resource Biometrics	
NREM 3091	Field Applications of Geospatial Technologies for Natural Resources	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3143	Forest Biology	
NREM 3153	Forest Health and Disturbance Ecology	
NREM 3224	Silviculture	
NREM 3502	Wildlife Law Enforcement	
NREM 3613	Principles of Rangeland Management	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (G)	
NREM 4403	Wetland Ecology and Management	
NREM 4414	Fisheries Management	
NREM 4424	Fisheries Techniques	
NREM 4443	Watershed Hydrology and Water Quality	
NREM 4452	Pond Management	
NREM 4453	Aquaculture	
NREM 4613	Rangeland Resources Planning	
NREM 4741	Wildland Firefighter Training	
NREM 4783	Prescribed Fire	
NREM 4793	Advanced Prescribed Fire	
NREM 4960	Undergraduate Internship	
NREM 4980	Undergraduate Research	
NREM 4990	Special Topics in Natural Resource Ecology and Management	
Hours Subtotal		**45**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**125**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If used as (N) course above, then hours are reduced by course hours.

3

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

4

If used as (S) course above, then hours are reduced by three.

5

May not use a course used above in Core Courses.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Natural Resource Ecology and Management (NREM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 20

Code	Title	Hours
Minor Requirements		
NREM 3013	Applied Ecology and Conservation	3
Select a minimum of 11 additional hours of the following:		11
NREM 1014	Introduction to Natural History (LN)	
NREM 1113	Elements of Forestry	
NREM 3153	Forest Health and Disturbance Ecology	
NREM 3503	Principles of Wildlife Ecology and Management	
NREM 3613	Principles of Rangeland Management	
NREM 4414	Fisheries Management	
Select 6 additional hours not already used previously, or select from the following:		6
NREM 1012	Introduction to Natural Resource Ecology and Management	
NREM 2083	Geospatial Technologies for Natural Resources	
NREM 3012	Applied Ecology Laboratory	
NREM 3101	Forest Resource Field Studies	
NREM 3111	Natural Resource Field Studies	
NREM 3224	Silviculture	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4043	Natural Resource Administration and Policy	
NREM 4053	Natural Resource Recreation	
NREM 4093	Natural Resources, People and Sustainable Development (I)	
NREM 4403	Wetland Ecology and Management	
NREM 4443	Watershed Hydrology and Water Quality	
NREM 4464	Ornithology	
NREM 4613	Rangeland Resources Planning	
NREM 4783	Prescribed Fire	
SOIL 2124	Fundamentals of Soil Science (N)	
Total Hours		**20**

- A grade average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Rangeland Ecology and Management (REM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 22

Code	Title	Hours
Minor Requirements		
NREM 3013	Applied Ecology and Conservation	3
NREM 3613	Principles of Rangeland Management	3
NREM 4603	Rangeland and Pasture Utilization	3
SOIL 2124	Fundamentals of Soil Science (N)	4
Select a minimum of 9 hours of the following:		9
NREM 2013	Ecology of Natural Resources	
NREM 2083	Geospatial Technologies for Natural Resources	
NREM 3012	Applied Ecology Laboratory	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4613	Rangeland Resources Planning	
NREM 4783	Prescribed Fire	
NREM 4793	Advanced Prescribed Fire	
Total Hours		**22**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Wildlife Ecology (WLEC), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 22

Code	Title	Hours
Minor Requirements		
NREM 3013	Applied Ecology and Conservation	3
NREM 3503	Principles of Wildlife Ecology and Management	3
PBIO 1404	Plant Biology (LN)	4
Select a minimum of 12 additional hours of the following:		12
BIOL 4174	Mammalogy	
BIOL 4413	Biology of Fishes	
NREM 3012	Applied Ecology Laboratory	
NREM 4464	Ornithology	
NREM 4533	Wildlife Management for Game Species	
NREM 4543	Wildlife Management for Biodiversity	
Total Hours		**22**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Plant and Soil Sciences

The goal of the department is to meet societal needs for food, fiber, energy, and intrinsic value related to the conservation and management of plant and soil resources. Teaching, research, and extension efforts are designed to spur innovation and provide understanding regarding management of agricultural and environmental resources to increase long-term sustainability food production systems.

Undergraduate students select an option of study from: agronomic business, crop production and management, plant biotechnology and improvement, or soil and water resources. Students may choose to specialize in an area such as: entrepreneurship, forage and livestock production, pest management, plant genetics, precision agriculture or environmental management. In addition, students can fulfill prerequisites for professional programs such as pharmacy school. Students interested in professional certification will complete the necessary course requirements in their degree programs. Students have flexibility to work with their academic advisors to develop a plan of study to suit their interests. Many undergraduate students work with the research faculty on projects providing the student an opportunity to assist in gathering new information related to plant breeding and genetics, biotechnology, environmental remediation, plant physiology, crop production, weed science, soil nutrient management, soil chemistry, soil physics, water quality and land restoration.

Upon completion of a Bachelor of Science program, students are employed by private firms, public institutions, state and federal agencies, or non-profit organizations that require personnel with expertise in plant and soil systems. Typical careers include: federal employment in soil and rangeland conservation; crop consulting; technical sales and service for seed, fertilizer or agricultural chemical supply companies; farm or ranch operation; research positions as plant and soil scientists with federal agencies, state agricultural experiment stations or private industries; teaching and extension positions with colleges and universities; and a broad range of employment or ownership in retail businesses supplying feed, seed, grain, fertilizers, equipment, agricultural chemicals and other agricultural supplies and services. Our undergraduate program has also successfully prepared students to pursue advanced degrees in plant and soil sciences, agricultural economics, environmental science, and other related disciplines. Demand for individuals with experience in plant and soil sciences will continue as long as society demands a safe, secure food supply balanced with a desire to conserve natural resources.

Minor in Agronomy or Soil Science

The Department of Plant and Soil Sciences offers two minors, Agronomy (20 hours) and Soil Science (19 hours). Students pursuing a minor in Agronomy will take courses in areas that are most important for understanding the science of crop production, including genetics and biotechnology, weed science and nutrient management in order to prepare them for careers that support crop production. The Soil Science minor has a great deal of flexibility (12 credits of controlled electives) that will allow students to explore diverse aspects of soils ranging from chemistry to conservation while helping them prepare for a variety of environment-related careers.

Courses

PLNT 1101 Orientation to Plant and Soil Sciences
Description: Introduction to areas of study, professional activities and career opportunities in plant and soil sciences.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 1213 Introduction to Plant and Soil Systems (N)
Description: Introduction to the concepts of plant and soil systems including cropland, rangeland and pastureland. A systems approach to the importance of plant and soil resources to the producer, consumer and citizen; modern management and production practices; maintenance of natural resources. Previously offered as AGRN 1213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

PLNT 2011 Agronomic Problem Solving
Prerequisites: PLNT 1213 or HORT 1013 or PBIO 1404 and MATH 1513 or Instructor Permission.
Description: Practical solutions to common agronomic and soil science issues.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Plant & Soil Sciences

PLNT 2013 Applied Plant Science
Prerequisites: PLNT 1213 or BOT 1404 or FOR 1123 or HORT 1013.
Description: Application of agronomic principles to the management, improvement and use of plants. Structure and growth of crop plants relating to management strategies and adaptation to varying abiotic and biotic factors. Hands-on identification of crops, weeds, and seed quality factors; application of tools and techniques. Previously offered as PLNT 2012 and AGRN 2012.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 2041 Career Development in Plant and Soil Sciences
Prerequisites: Sophomore standing in plant and soil sciences.
Description: Develop professional skills, learn about career development resources, and understand the steps of the application and interview process. Engage industry professionals to learn about experiences and viewpoints regarding the job market. Identify career path, develop action plan to meet job requirements and gain basic understanding of personal financial management. Previously offered as AGRN 2041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated courses. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 3012 Crops of Oklahoma
Prerequisites: PLNT 1213.
Description: Production, distribution, classification, utilization, and current issues or improvements of major crops in Oklahoma. This course includes, but is not limited to, wheat, soybean, sorghum, corn, peanuts, cotton, sunflowers, and bermuda grass. Previously offered as PLNT 3011.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 3554 Plant Genetics and Biotechnology
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111).
Description: Basic principles of heredity. Interrelationship between classical genetics and molecular genetics emphasized. Mendelian genetics, cytogenetics, mutations, gene regulation and genetic engineering. Previously offered as AGRN 3554.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 3790 Seed and Plant Identification
Prerequisites: PLNT 1213.
Description: Identification and classification of agronomically important crop and weed species from seed and from seedling, vegetative, flowering or mature plants. Offered for fixed credit, 1 credit hours, maximum of 2 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4013 Fundamentals of Weed Science
Prerequisites: PLNT 1213 or HORT 1013.
Description: Fundamentals of weed biology and ecology aimed at understanding life cycles, growth characteristics, and ecological impacts. Identification of common weeds in South-Central US production systems utilizing live plants, hands-on activities, and field visits. Holistic system approach to understanding weed population dynamics and integrated weed management with special attention to chemical weed management alongside cultural, mechanical, and biological control methods. Introductory concepts in herbicide-resistant weeds. Previously PLNT 3113 & 3211. May not be used for Degree Credit with PLNT 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4033 Applied Agricultural Meteorology
Prerequisites: PLNT 1213 and SOIL 2124.
Description: Fundamental meteorology concepts in field-scale setting. Drivers of climate and weather and the assessment of the impacts of climate and weather on agricultural systems. Integration of weather and climate information into the process of formulating sound, data-based decisions related to various agricultural operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4080 Professional Internship
Prerequisites: Consent of instructor.
Description: Internship must be at an approved agribusiness unit or other agency serving agronomic agriculture. Requires a final conference with on campus adviser and a written report. Previously offered as AGRN 4080. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 4113 Advanced Weed Science
Prerequisites: PLNT 4013
Description: Advanced principles focused on herbicide mode and mechanism of action, factors influencing herbicide activity, herbicide formulations, and application techniques. Selection of appropriate herbicides for various weed scenarios, herbicide application, soil-herbicide interaction, and identification of herbicide injury symptomology on various crops and weeds. Activities emphasize sprayer calibration, herbicide application strategies, and close examination of herbicide symptomology in field and greenhouse settings. Previously offered as AGRN 4113. May not be used for Degree Credit with PLNT 5113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 4123 Plant-Environment Interactions
Prerequisites: PBIO 1404.
Description: Environmental impact on plant life cycle; (i.e. germination, flowering and senescence); plant growth responses (e.g. photosynthesis, phototropism, biomass production) to light quality, precipitation, temperature, and population or community changes. Previously offered as AGRN 4123. May not be used for Degree Credit with PLNT 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4133 Temperature Stress Physiology
Prerequisites: CHEM 1215 and BIOL 1114 (or BIOL 1113 and BIOL 1111) or PBIO 1404
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as HORT 4133. Offered in combination with HORT 5133 and PLNT 5133. May not be used for degree credit with HORT 5133 and PLNT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4243 Crop Nutrition
Prerequisites: SOIL 4234 or equivalent and PBIO 4463, or instructor approval
Description: Plant nutrient uptake mechanisms, translocation, and the metabolic and physiological roles of micro- and macronutrients in crop production. Additional focus on how nutrient deficiencies, as well as water, temperature, and pest stresses influence nutrient function and utilization in agronomic crops. May not be used for Degree Credit with PLNT 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4353 Plant Breeding
Prerequisites: PLNT 3554 or equivalent.
Description: Basic principles dealing with the improvement of plants through application of genetic principles. Previously offered as AGRN 4353. May not be used for Degree Credit with PLNT 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4443 Cropping Systems
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4453 Plant Molecular Breeding
Prerequisites: ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Use and application of genomic knowledge and molecular technology to improve agriculturally important plants. Major topics include applications of genome sequence, genetic mapping, and gene cloning structural and comparative genomics and their application in molecular breeding of agronomic crops. May not be used for degree credit with PLNT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4470 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Problems in plant science selected from topics in range and turf, plant breeding and genetics, crop management and physiology, and weed control. Previously offered as AGRN 4470. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 4543 Cropping Systems
Prerequisites: PLNT 1213 or HORT 1013 or BOT 1404; PLNT 2013.
Description: Principles of developing and managing cropping systems in the Great Plains for the efficient use and conservation of soil and water resources while promoting yield, managing soil fertility, and effectively controlling pests. May not be used for degree credit with PLNT 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4571 Professional Preparation in Plant and Soil Sciences
Prerequisites: Senior standing in plant and soil sciences.
Description: Preparation for professional certification exams and career opportunities in plant and soil sciences. Same course as SOIL 4571. Previously offered as AGRN 4571.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4573 Bioenergy Feedstock Production
Prerequisites: PLNT 1213.
Description: Understand production and management practices for potential bioenergy feedstocks. Distinguish feedstock sources and end products. Identify physiological mechanisms to improve yield and quality under current and future climates. Use simulation and GIS tools to project biomass and ethanol yields. May not be used for Degree Credit with PLNT 5573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4613 Forage and Grazinglands Resource Management
Prerequisites: PLNT 1213 or BOT 1404.
Description: Designing forage systems that optimize yield potential, economical livestock production and pasture system development. Previously offered as RLEM 4613, PLNT 3213, and AGRN 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalents.
Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. Same course as ENTO 4923, PLP 4923, and PLNT 4922. May not be used for Degree Credit with PLNT 5923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 4933 Gene Editing and Genetically Modified Crops
Prerequisites: PLNT 3554 or ANSI 3423 or BIOL 3023 or Consent of Instructor.
Description: Principles and techniques in editing and overexpressing genes in transgenic crops with improved agronomic traits. Controversies and consumer concerns over transgenic plants, biotechnology regulations and global status of biotech crops. Laboratory techniques in recombinant DNA cloning, transformation, and tissue culture. May not be used for Degree Credit with PLNT 5933.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 4990 Senior Thesis in Plant and Soil Sciences
Prerequisites: Consent of instructor.
Description: Supervised undergraduate research in topics related to plant and soil sciences. Completion of an approved research project based on a thesis topic in plant or soil science will include submission of a written report and a public defense of the work. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5000 Master's Thesis
Prerequisites: Consent of advisor.
Description: Research planned, conducted and reported in consultation with a major professor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5013 Fundamentals of Weed Science
Prerequisites: PLNT 1213 or HORT 1013.
Description: Fundamentals of weed biology and ecology aimed at understanding life cycles, growth characteristics, and ecological impacts. Identification of common weeds in South-Central US production systems utilizing live plants, hands-on activities, and field visits. Holistic system approach to understanding weed population dynamics and integrated weed management with special attention to chemical weed management alongside cultural, mechanical, and biological control methods. Introductory concepts in herbicide-resistant weeds. May not be used for Degree Credit with PLNT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Discussions of research philosophy, methods, interpretation and presentations. Profession development and contributions to the scientific community. Same course as SOIL 5020. Offered for fixed credit, 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5110 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Supervised study of special problems and topics not covered in other graduate courses. Previously offered as AGRN 5110. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5113 Advanced Weed Science
Description: Advanced principles focused on herbicide mode and mechanism of action, factors influencing herbicide activity, herbicide formulations, and application techniques. Selection of appropriate herbicides for various weed scenarios, herbicide application, soil-herbicide interaction, and identification of herbicide injury symptomology on various crops and weeds. Activities emphasize sprayer calibration, herbicide application strategies, and close examination of herbicide symptomology in field and greenhouse settings. Previously offered as AGRN 4113. May not be used for Degree Credit with PLNT 4113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 5123 Plant-Environment Interactions
Prerequisites: PBIO 1404.
Description: Environmental impact on plant life cycle; (i.e. germination, flowering and senescence); plant growth responses (e.g. photosynthesis, phototropism, biomass production) to light quality, precipitation, temperature, and population or community changes. May not be used for degree credit with PLNT 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5133 Temperature Stress Physiology
Description: Effects of heat, chilling and freezing stress on plants. Responses to temperature extremes at the molecular to whole plant levels with emphasis on mechanisms of injury and resistance. Same course as HORT 5133. Offered in combination with HORT 4133 and PLNT 4133. No credit with degree credit in HORT 4133 and PLNT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5230 Research
Prerequisites: Consent of a faculty member supervising the research.
Description: Supervised independent research on selected topics. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 5243 Crop Nutrition
Prerequisites: SOIL 4234 or SOIL 5234 or equivalent course or instructor approval
Description: Plant nutrient uptake mechanisms, translocation, and the metabolic and physiological roles of micro- and macronutrients in crop production. Additional focus on how nutrient deficiencies, as well as water, temperature, and pest stresses influence nutrient function and utilization in agronomic crops. May not be used for Degree Credit with PLNT 4243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5293 Plant Response to Water Stress
Prerequisites: BIOC 3653, BOT 3463.
Description: Physiological ramifications of water deficit stress on cells, tissues, plants and canopies. Discussion of the soil/plant/atmosphere continuum, and avoidance and tolerance mechanisms leading to drought resistance. Photosynthesis, transpiration, and water-use efficiency and their relationship to biomass accumulation and crop yield. Previously offered as AGRN 5293.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5313 Simulation Models in Research, Management and Policy
Prerequisites: PLNT 1213.
Description: Use crop simulation models (CSM) and decision support systems to address challenges associated with food, fuel, feed and fiber production. Utilize CMS as research, management, and policy tools. Evaluate CSM as surrogates to field studies and to design experiments to fill in knowledge gaps.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5353 Plant Breeding
Prerequisites: PLNT 3554 or equivalent.
Description: Basic principles dealing with the improvement of plants through application of genetic principles. May not be used for degree credit with PLNT 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5403 Physiological Action of Herbicides
Prerequisites: BOT 3463.
Description: The mode of action, uptake and translocation, and metabolism of herbicides in crops and weeds. Previously offered as AGRN 5403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5412 Plant Breeding Methods
Prerequisites: PLNT 3554 or PLNT 4353 or consent of instructor.
Description: Development and application of genetic principles to breeding methodology of self- and cross-pollinated crops; emphasis on selection methods pertinent to plant improvement; methods of new cultivar development, release, and commercialization. Previously offered as PLNT 5414.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5413 Data Science for Agriculture and Natural Resources
Description: Data science principles and skills in the context of agricultural and natural resources research. Topics include data capture, quality control, data manipulation, visualization, reproducible analysis, and communication of results. Emphasis on workflows and analytical techniques tailored for agricultural and natural resource management research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5433 Biotechnology in Plant Improvement
Prerequisites: PLNT 3554, PLNT 4353, and BIOL 3014 or consent of instructor.
Description: Use of emerging technologies in cell biology and molecular genetics to study and manipulate plants. Emphasis on genetic systems which influence productivity and end-product utilization. The integration of biotechnology into plant breeding programs and issues concerning the release of genetically engineered organisms into the environment. Previously offered as AGRN 5433.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5453 Plant Molecular Breeding
Prerequisites: ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Use and application of genomic knowledge and molecular technology to improve agriculturally important plants. Major topics include applications of genome sequence, genetic mapping, and gene cloning structural and comparative genomics and their application in molecular breeding of agronomic crops. May not be used for degree credit with PLNT 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5543 Cropping Systems
Description: Principles of developing and managing cropping systems in the Great Plains for the efficient use and conservation of soil and water resources while promoting yield, managing soil fertility, and effectively controlling pests. May not be used for degree credit with PLNT 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5573 Bioenergy Feedstock Production
Prerequisites: PLNT 1213.
Description: Understand production and management practices for potential bioenergy feedstocks. Distinguish feedstock sources and end products. Identify physiological mechanisms to improve yield and quality under current and future climates. Use simulation and GIS tools to project biomass and ethanol yields. May not be used for degree credit with PLNT 4573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5923 Applications of Biotechnology in Pest Management
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and CHEM 1215 or equivalents.
Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. May not be used for degree credit with PLNT 4923.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

PLNT 5933 Gene Editing and Genetically Modified Crops
Prerequisites: PLNT 3554 or ANSI 3423 or BIOL 3023 or consent of instructor.
Description: Principles and techniques in editing and overexpressing genes in transgenic crops with improved agronomic traits. Controversies and consumer concerns over transgenic plants, biotechnology regulations and global status of biotech crops. Laboratory techniques in recombinant DNA cloning, transformation, and tissue culture. May not be used for degree credit with PLNT 4933.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

PLNT 6000 Doctoral Thesis
Prerequisites: Consent of adviser.
Description: Independent research to be conducted and reported with the supervision of a major professor as partial requirement for the PhD degree. Offered for variable credit, 1-6 credit hours, maximum of 36 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

PLNT 6410 Topics in Plant Breeding and Genetics
Prerequisites: Consent of instructor.
Description: Selected topics in the statistical and experimental analysis of quantitative traits, evolutionary development of domesticated plants and animals, and techniques used in breeding crop plants. Previously offered as AGRN 6410. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 1113 Land, Life and the Environment (N)
Description: Provide information about soils at local, regional, national, and global scales as well as basic soil properties and how they are influenced by human activity. Discussion topics include soil's importance to world food security and human health, agricultural production, environmental quality, and sustainable ecosystems. Students will gain practical knowledge of sustainable soil management in support of the production and ecological regulator functions of the soils.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

SOIL 2124 Fundamentals of Soil Science (N)
Prerequisites: CHEM 1215 or CHEM 1314 or CHEM 1414.
Description: Introduction to soil physical, chemical and biological properties and processes necessary in formulating land use decisions related to agricultural, engineering and environmental concerns. Soil formation, classification and conservation. Analysis/evaluation of soils in field and laboratory settings. Course previously offered as AGRN 2124.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Natural Science Reasoning

SOIL 3033 Soils and Societies (S)
Description: Influence of the soil in shaping human decisions that affect food supply, cultural practices, economic growth, and establishment of societies. Survey of past and current land uses and land use changes that lead to the demise of societies or advancement of people's lives. Themes include key human utilization of the soil in Oklahoma and in the United States, roles of soil in waste treatment, and advances in assessment and utilization of soil that affect human lives. Soils in art, mythology, pop culture, healthcare, and warfare.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences
General Education and other Course Attributes: Society & Human Behavior

SOIL 3433 Soil Genesis, Morphology, and Classification
Prerequisites: SOIL 2124.
Description: Basic principles dealing with how and why soils differ, their descriptions, geographic distributions and modern classification of soils. Soil genesis and classification a prerequisite to sound land use planning and land management. Course previously offered as AGRN 3433. May not be used for Degree Credit with SOIL 5353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences
Additional Fees: PSS or SOIL Course Field Trip fee of $40 applies.

SOIL 4210 Describing and Interpreting Soils
Prerequisites: SOIL 2124.
Description: Describe and classify soil properties in the field and interpret for suitable agriculture, urban, and other land uses. Course previously offered as AGRN 4210. May not be used for Degree Credit with SOIL 5210. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 4213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. Same course as BAE 4213. May not be used for Degree Credit with SOIL 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4234 Soil Nutrient Management
Prerequisites: SOIL 2124.
Description: Soil fertility and use of fertilizer materials for conservation, maintenance, and improvement of soil productivity and to minimize environmental concerns. Course previously offered as AGRN 4234. May not be used for Degree Credit with SOIL 5234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 4363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality. Same course as ENVR 4363. Course previously offered as AGRN 4363. May not be used for Degree Credit with SOIL 5363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4463 Soil and Water Conservation
Prerequisites: SOIL 2124.
Description: Assess the importance, quality and quantity of soil and water as natural resources for ecosystems and societies. Principles of soil erosion processes and management practices to decrease erosion in urban, cropland and rangeland systems. Understand the principles of hydrology cycle to improve water use efficiency of precipitation and irrigation resources. Examine resource mismanagement that have resulted in desertification, salinization and deforestation. Course previously offered as AGRN 4463. May not be used for Degree Credit with SOIL 5463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4470 Problems and Special Study
Prerequisites: Consent of the instructor.
Description: Problems in soil science selected from topics in soil chemistry and fertility, soil physics, soil biology, soil conservation, and soil morphology. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

SOIL 4483 Soil Microbiology
Prerequisites: SOIL 2124 and BIOL 1114 or (BIOL 1113 and BIOL 1111) or consent of instructor.
Description: An overview of microorganisms living in the soil and their activities which are significant to agricultural practices and the environment. No credit for both SOIL 4483 and SOIL 5383. Course previously offered as AGRN 4483. May not be used for Degree Credit with SOIL 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4571 Professional Preparation in Plant and Soil Sciences
Prerequisites: Senior standing in plant and soil sciences.
Description: Preparation for professional certification exams and career opportunities in plant and soil sciences. Same course as PLNT 4571.
Credit hours: 1
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4683 Soil, Water, and Weather
Prerequisites: SOIL 2124 and PHYS 1114.
Description: Introduction to the physics of the soil-plant-atmosphere continuum. A focus on physical properties of soil and interactions with water and weather in terrestrial ecosystems. Course previously offered as AGRN 4683. May not be used for Degree Credit with SOIL 5683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 4893 Environmental Soil Chemistry
Prerequisites: SOIL 2124 and CHEM 1225 or CHEM 1515.
Description: Chemical of soil systems with an emphasis on environmental health and quality. Topics include organic matter dynamics, the role of plant and microbial inputs, ion exchange processes, sorption phenomena, properties of clay minerals, and soil acidity. Same course as ENVR 4893. Previously offered as SOIL 3893 and AGRN 3893.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5000 Master's Thesis
Prerequisites: Consent of adviser.
Description: Research planned, conducted and reported in consultation with a major professor. 1-6 credits, 6 max total credits under Plan I, and 2 max total credits under Plan II. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5020 Graduate Seminar
Prerequisites: Graduate standing.
Description: Discussion of research philosophy, methods, interpretation, and presentations. Profession development and contributions to the scientific community. Same course as PLNT 5020. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5110 Problems and Special Study
Prerequisites: Consent of instructor.
Description: Supervised study of special problems and topics not covered in other graduate courses. Offered for variable credit, 1-4 credit hours, maximum of 12 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5112 Research Methods in Plant and Soil Sciences
Prerequisites: Graduate standing.
Description: Exploration of various methodologies helpful in field scale research. Application and understanding biometry as it relates to research result interpretation. Course previously offered as SOIL 5111.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5120 Teaching Practicum in Plant and Soil Sciences
Description: College-level teaching experience under the mentorship of a faculty member who assists in planning of class activities, provides guidance in teaching-related projects, observes classes and provides feedback regarding course delivery and classroom management. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5131 Professional Development Colloquium in Plant and Soil Sciences
Description: Professional preparation of graduate students for future careers. Discussions on topics related to the application process and successful careers in the academic, private industry and government sectors. Concerns of international students, career-life balance and other post-graduate school career issues are discussed.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Discussion
Department/School: Plant & Soil Sciences

SOIL 5210 Describing and Interpreting Soils
Prerequisites: SOIL 2124.
Description: Describe and classify soil properties in the field and interpret for suitable agriculture, urban, and other land uses. May not be used for degree credit with SOIL 4210. Offered for fixed 1 credit hour, maximum of 3 credit hours.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5213 Precision Agriculture
Prerequisites: MATH 1513, senior standing.
Description: Introduction to the concepts of precision agriculture including analysis of spatial variability, relationships of fertility and crop response, geographical information systems, variable rate technology, optical sensing, global positioning systems, and yield monitoring. Case studies included for detailed analyses. May not be used for degree credit with SOIL 4213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5223 Soil Chemical Processes and Impact on Environmental Quality
Prerequisites: SOIL 4893 and CHEM 2113 or CHEM 3324 or equivalent.
Description: A comprehensive study of chemical processes applied to fate and transport of contaminants and agricultural productivity. Chemical and physical properties of soil minerals as they pertain to solution and surface chemistry. Nutrient and contaminant availability and speciation as dictated by ion exchange, precipitation/dissolution, and adsorption reactions. Review of current research in soil and environmental chemistry literature. Course previously offered as SOIL 5224.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5230 Research
Prerequisites: Consent of a faculty member supervising the research.
Description: Supervised independent research on selected topics. Offered for variable credit, 1-4 credit hours, maximum of 8 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 5234 Soil Nutrient Management
Prerequisites: SOIL 2124.
Description: Soil fertility and use of fertilizer materials for conservation, maintenance, and improvement of soil productivity and to minimize environmental concerns. May not be used for degree credit with SOIL 4234.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5353 Advanced Soil Genesis and Classification
Prerequisites: SOIL 3433.
Description: Processes and factors of soil formation. Comparison of world soil morphology and classification systems. Course previously offered as AGRN 5353.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5363 Environmental Soil Science
Prerequisites: BIOL 1114 or (BIOL 1113 and BIOL 1111) and SOIL 2124.
Description: Re-emphasis of soil science concepts vital in the understanding of processes that are within the realms of the ecological regulator function of the soil; discussions on the role of soil as the foundation of forest, rangeland/pastureland, agricultural, urban and suburban, as well as wetland ecosystems; impact of soil processes on global environmental concerns; soil as the ultimate recipient of waste; impact of soil processes on groundwater and surface water quality. May not be used for degree credit with SOIL 4363.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5383 Advanced Soil Microbiology
Description: A comprehensive overview of microorganisms living in the soil and their activities which are of agricultural and environmental significance. Provide experience in analytical skills related to soil microbial processes. No credit for both SOIL 4483 and SOIL 5383.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5463 Soil and Water Conservation
Prerequisites: SOIL 2124.
Description: Assess the importance, quality and quantity of soil and water as natural resources for ecosystems and societies. Principles of soil erosion processes and management practices to decrease erosion in urban, cropland and rangeland systems. Understand the principles of hydrology cycle to improve water use efficiency of precipitation and irrigation resources. Examine resource mismanagement that have resulted in desertification, salinization and deforestation. May not be used for degree credit with SOIL 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5483 Soil Bioremediation and Sustainability
Prerequisites: SOIL 4483.
Description: Microbial activities, biodiversity, sustainability, and their interrelationships in soil and the environment. Soil enzymology, environmental sustainability, and bioremediation of agricultural and industrial chemicals, heavy metals, chlorinated organics and explosives. Formulation of strategies that promote soil productivity and environmental sustainability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5513 Nature-based Solutions
Prerequisites: Graduate Standing
Description: Explore the definition of nature-based solutions (NbS) within environmental science and examples of current practices around the world. Examine NbS as a way to confront global environmental challenges. Utilize available guidance to suggest nature-based solutions to specific problems on a local scale. May not be used for degree credit with ENVR 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5583 Soil Physics Measurement Techniques
Prerequisites: SOIL 4683.
Description: Training in field and laboratory techniques for physical analysis of soil properties and processes. Develop research proposal and conduct research project related to soil physics. Course previously offered as AGRN 5583.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 5683 Soil, Water, and Weather
Prerequisites: SOIL 2124 and CHEM 1225.
Description: Introduction to the physics of the soil-plant-atmosphere continuum. A focus on physical properties of soil and interactions with water and weather in terrestrial ecosystems. May not be used for degree credit with SOIL 4683.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5813 Soil-Plant Nutrient Cycling
Prerequisites: SOIL 4234 or equivalent.
Description: Theory and application of soil/plant nutrient cycling in production agriculture. Focus on nutrient sources, chemical, physical, and biological fluxes, plant uptake and removal mechanisms, and nutrient loss pathways. Course previously offered as AGRN 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5893 Environmental Soil Chemistry
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

SOIL 5894 Soil Biogeochemistry
Prerequisites: SOIL 4893 or Consent of Instructor.
Description: Foundational and emerging concepts in soil biogeochemistry with an emphasis on transformation and fates of carbon, nitrogen, and phosphorus from molecular to global scales. Discussions are focused on molecular-scale processes occurring at the interface between mineral surfaces, microbes, and plants all the way to the controls on nutrient storage and cycling at the ecosystem-scale. Student-led discussions on peer-reviewed literature and exploration of key topics in soil biogeochemistry.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Plant & Soil Sciences

SOIL 6000 Doctoral Thesis
Prerequisites: Consent of instructor.
Description: Independent research to be conducted and reported with the supervision of a major professor as partial requirement for the PhD degree. Offered for variable credit, 1-6 credit hours, maximum of 36 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 6010 Advanced Topics and Conference
Prerequisites: MS degree.
Description: Supervised study of advanced topics. A reading and conference course designed to acquaint the advanced student with fields not covered in other courses. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Plant & Soil Sciences

SOIL 6583 Soil Physics Theory
Prerequisites: SOIL 4683 or equivalent and MATH 2233 or equivalent.
Description: Theoretical understanding and modeling skills required to analyze and predict mass and energy transport in the soil-plant-atmosphere continuum. Application of analytical and numerical models for diverse transport phenomena including water, heat, and solute transport through soil.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Plant & Soil Sciences

Undergraduate Programs

- Plant and Soil Sciences: Agronomic Business, BSAG (p. 2702)
- Plant and Soil Sciences: Crop Production and Management, BSAG (p. 2704)
- Plant and Soil Sciences: Plant Biotechnology and Improvement, BSAG (p. 2706)
- Plant and Soil Sciences: Soil and Water Resources, BSAG (p. 2708)

Minors

- Agronomy (AGRN), Minor (p. 2701)
- Soil Science (SOIL), Minor (p. 2710)

Graduate Programs

Programs of coursework and research are offered leading to a Master of Science degree in Plant and Soil sciences, a Doctor of Philosophy degree in Crop Science, or a Doctor of Philosophy degree in Soil Science. Specific program focuses are available in the areas of plant breeding and molecular biology, biotechnology, bioenergy, environmental remediation, forage, and pasture management, weed science, crop physiology, crop management, conservation cropping systems, soil morphology and genesis, soil microbiology, soil fertility and plant nutrition, soil physics, soil-water management, soil chemistry, soil and water quality, and waste management. Applicants should indicate their specific area of interest upon application. Plant and soil sciences faculty also serve on advisory committees for the Environmental Science interdisciplinary degree programs.

The graduate programs in plant and soil sciences prepare individuals for successful careers in a variety of areas including research, teaching, environmental sciences, waste management, farming and ranching, extension education, agricultural business, and all aspects of crop production.

Prerequisites

Admission to the graduate program requires a BS degree in plant and soil sciences, agronomy, or a closely related field. Applicants should have completed basic courses in plant and soil sciences, agronomy, biology, chemistry, and mathematics required of undergraduate majors. Deficiencies in fundamental course requirements will be met by the student under the direction of the student's advisory committee. Applicants must be accepted by an adviser in an appropriate discipline prior to official admission.

Degree Requirements

Students must follow approved plans of study that meet the minimum University and program requirements for the respective degrees they are pursuing.

The plans of study for graduate programs are developed individually for each candidate and must adhere to guidelines in the Plant and Soil Sciences graduate student handbook and be approved by the student's advisory committee. The graduate degrees in plant and soil sciences requires a minimum of 30 credit hours beyond the BS degree for a Master of Science degree or 78 credit hours beyond the BS degree for a Doctor of Philosophy degree. These include six credit hours of PLNT/SOIL 5000 Master's Thesis or 15 credit hours of PLNT/SOIL 6000 Doctoral dissertation. All students must meet certain requirements in basic disciplines such as statistics, mathematics, botany, and chemistry. The study of a foreign language is not required but can be incorporated if the student and advisory committee feel that it is desirable.

Faculty

Wade Thomason, PhD—Professor and Head
Regents Professors: Brett F. Carver, PhD; Tyson E. Ochsner, PhD; Yanqi Wu, PhD; Liuling Yan, PhD

Professors: Sergio M. Abit Jr., PhD; D. Brian Arnall, PhD; Shiping Deng, PhD; Million Tadege, PhD; Wade Thomason, PhD; Kevin Wagner, PhD; Jiangqi Wen, PhD
Associate Professors: Phillip Alderman, PhD; Amanda de Oliveira Silva, PhD; Beatrix J. Haggard, PhD; Josh Lofton, PhD
Assistant Professors: Daniel Adamson, PhD; Bee Khim Chim. PhD; Jennifer Dudak, PhD; Liberty Galvin, PhD; Steven Phillips, PhD; Sumit Sharma, PhD

Agronomy (AGRN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 20

Code	Title	Hours
Minor Requirements		
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
PLNT 2013	Applied Plant Science	3
PLNT 4013	Principles of Weed Science	3
SOIL 2124	Fundamentals of Soil Science (N)	4
SOIL 4234	Soil Nutrient Management	4
Select 3 hours of the following:		3
PLNT 4033	Applied Agricultural Meteorology	
PLNT 4123	Plant-Environment Interactions	
PLNT 4353	Plant Breeding	
PLNT 4470	Problems and Special Study	
PLNT 4573	Bioenergy Feedstock Production	
SOIL 4213	Precision Agriculture	
PLNT 2011	Agronomic Problem Solving	
PLNT 3011	Crops of Oklahoma	
PLNT 4443	Cropping Systems	
Total Hours		**20**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Plant and Soil Sciences: Agronomic Business, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
or CHEM 1215	Chemical Principles I (LN)	
Course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		6
Hours Subtotal		**40**
College Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ENTO 2993	Introduction to Entomology (LN)	3
Departmental Requirements		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S) [3]	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
PLNT 2041	Career Development in Plant and Soil Sciences	1
PLNT 4033	Applied Agricultural Meteorology	3
PLNT 4080	Professional Internship	3
or PLNT 4990	Senior Thesis in Plant and Soil Sciences	
PLNT 4571	Professional Preparation in Plant and Soil Sciences	1
SOIL 2124	Fundamentals of Soil Science (N)	4
SOIL 4234	Soil Nutrient Management	4
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q) [4]	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1515	Chemistry II (LN) [5]	5
or CHEM 1225	Chemical Principles II (LN)	
Select one of the following:		3
PHYS 1014	Descriptive Physics (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
CHEM 3013	Survey of Organic Chemistry	
Hours Subtotal		**44**
Major Requirements		
Core Courses		
PLNT 2013	Applied Plant Science	3
PLNT 3012	Crops of Oklahoma	2
PLNT 4013	Fundamentals of Weed Science	3
ANSI 4203	Rangeland and Pasture Utilization	3
or NREM 4603	Rangeland and Pasture Utilization	
PLNT 4443	Cropping Systems	3
SOIL 4213	Precision Agriculture	3
AGEC 3323	Agricultural Product Marketing and Sales	3
AGEC 3713	Agricultural Law	3

ACCT 2103	Financial Accounting	3
or ACCT 2003	Survey of Accounting	
or AGEC 3183	Agribusiness Accounting and Taxation	
Related Courses		
Select 10 hours of the following:		10
AGEC 3213	Quantitative Methods in Agricultural Economics	
AGEC 3333	Agricultural Marketing and Price Analysis	
AGEC 3403	Agricultural Small Business Management	
AGEC 3463	Agricultural Cooperatives	
AGEC 3503	Natural Resource Economics	
AGEC 3603	Agricultural Finance	
AGEC 3703	Issues in Agricultural Policy	
AGEC 4333	Commodity Futures Markets	
AGEC 4403	Advanced Farm and Ranch Management	
AGEC 4423	Advanced Agribusiness Management	
AGEC 4503	Environmental Economics and Resource Development	
AGEC 4513	Farm Appraisal	
AGEC 4703	American Agricultural Policy	
ECON 3033	Economics of Entrepreneurship and Innovation	
PBIO 1404	Plant Biology (LN)	
PLNT 2011	Agronomic Problem Solving	
PLNT 4123	Plant-Environment Interactions	
PLNT 4470	Problems and Special Study	
PLNT 4573	Bioenergy Feedstock Production	
Hours Subtotal		**36**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as an additional (S) course above, hours in this block reduced by 3.

4

If used as an additional (Q) course above, hours in this block reduced by 3.

5

If used as an additional (N) course above, hours in this block reduced by 5.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Plant and Soil Sciences: Crop Production and Management, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
or CHEM 1215	Chemical Principles I (LN)	
Course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		6
Hours Subtotal		**40**
College Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ENTO 2993	Introduction to Entomology (LN)	3
Departmental Requirements		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S) [3]	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
PLNT 2041	Career Development in Plant and Soil Sciences	1
PLNT 4033	Applied Agricultural Meteorology	3
PLNT 4080	Professional Internship	3
or PLNT 4990	Senior Thesis in Plant and Soil Sciences	
PLNT 4571	Professional Preparation in Plant and Soil Sciences	1
SOIL 2124	Fundamentals of Soil Science (N)	4
SOIL 4234	Soil Nutrient Management	4
Select one of the following:		3
MATH 1483	Mathematical Functions and Their Uses (Q)	
MATH 1513	College Algebra (Q) [4]	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1515	Chemistry II (LN) [5]	5
or CHEM 1225	Chemical Principles II (LN)	
Select one of the following:		3
PHYS 1014	Descriptive Physics (N)	
BIOC 2344	Chemistry and Applications of Biomolecules	
CHEM 3013	Survey of Organic Chemistry	
Hours Subtotal		**44**
Major Requirements		
Core Courses		
PBIO 1404	Plant Biology (LN)	4
Select one of the following:		3
PBIO 4463	Plant Physiology	
PLNT 4123	Plant-Environment Interactions	
HORT 4963	Horticulture Physiology	
PLNT 2013	Applied Plant Science	3
PLNT 3012	Crops of Oklahoma	2
PLNT 4013	Fundamentals of Weed Science	3
PLNT 4353	Plant Breeding	3

ANSI 4203	Rangeland and Pasture Utilization	3
or NREM 4603	Rangeland and Pasture Utilization	
PLNT 4443	Cropping Systems	3
SOIL 4213	Precision Agriculture	3
Related Courses		
Select 9 hours of the following:		9
Upper-division PLNT including PLNT 4470, PLNT 4933, PLNT 4573		
PLNT 2011	Agronomic Problem Solving	
PBIO 3263	Plants and People (N)	
PBIO 4423	Plant Mineral Nutrition	
PLP 4343	Principles of Plant Pathology	
PLP 3553	Fungi: Myths and More	
ENPP 3663	Turfgrass Integrated Pest Management	
ENTO 3003	Livestock Entomology	
ENTO 3421	Horticultural Insects	
ENTO 3461	Insects in Forest Ecosystems	
ENTO 4854	Medical and Veterinary Entomology	
PLP 4923	Applications of Biotechnology in Pest Management	
SOIL 3433	Soil Genesis, Morphology, and Classification	
SOIL 4363	Environmental Soil Science	
SOIL 4463	Soil and Water Conservation	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
SOIL 4893	Environmental Soil Chemistry	
SOIL 3033	Soils and Societies (S)	
ANSI 1021 & ANSI 1023	Introduction to the Animal Sciences Lab and Introduction to the Animal Sciences	
or ANSI 1124	Introduction to the Animal Sciences	
ANSI 2123	Livestock Feeding	
ANSI 3423	Animal Genetics	
ANSI 3543	Principles of Animal Nutrition	
ANSI 3653	Applied Animal Nutrition	
ANSI 4203	Rangeland and Pasture Utilization	
HORT 3113	Greenhouse Management	
HORT 4133	Temperature Stress Physiology	
HORT 4953	Plant Growth and Development	
AST 1413	Introduction to Engineering in Agriculture	
AST 2313	Surveying	
AST 3011	Ag Structures	
or AST 3211	Engines and Power	
AST 3222	Metals and Welding	
AST 4112	Land Measurement and Site Analysis	
AST 4203	Agricultural Water Management	
ENVR 4033	Ecology of Invasive Species	
AST 4213	Safety and Health in Agriculture	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 3023	Climatology (N)	
GEOG 3033	Meteorology (N)	
NREM 3013	Applied Ecology and Conservation	
NREM 3012	Applied Ecology Laboratory	
NREM 3613	Principles of Rangeland Management	
NREM 4033	Ecology Of Invasive Species	
BIOL 3023	General Genetics	
Hours Subtotal		**36**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

[1]

College & Departmental requirements that may be used to meet General Education requirements.

[2]

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

[3]

If used as an additional (S) course above, hours in this block reduced by 3.

[4]

If used as an additional (Q) course above, hours in this block reduced by 3.

[5]

If used as an additional (N) course above, hours in this block reduced by 5.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Plant and Soil Sciences: Plant Biotechnology and Improvement, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		6
Hours Subtotal		**40**
College Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ENTO 2993	Introduction to Entomology (LN)	3
Departmental Requirements		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S) [3]	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
PLNT 2041	Career Development in Plant and Soil Sciences	1
PLNT 4033	Applied Agricultural Meteorology	3
PLNT 4080	Professional Internship	3
or PLNT 4990	Senior Thesis in Plant and Soil Sciences	
PLNT 4571	Professional Preparation in Plant and Soil Sciences	1
SOIL 2124	Fundamentals of Soil Science (N)	4
SOIL 4234	Soil Nutrient Management	4
Select one of the following:		3
MATH 1513	College Algebra (Q) [4]	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1515	Chemistry II (LN) [5]	5
or CHEM 1225	Chemical Principles II (LN)	
Hours Subtotal		**41**
Major Requirements		
Core Courses		
PBIO 1404	Plant Biology (LN)	4
PBIO 4463	Plant Physiology	3
or PLNT 4123	Plant-Environment Interactions	
or HORT 4963	Horticulture Physiology	
PLNT 2013	Applied Plant Science	3
PLNT 3012	Crops of Oklahoma	2
PLNT 4013	Fundamentals of Weed Science	3
PLNT 4353	Plant Breeding	3
PLNT 4933	Gene Editing and Genetically Modified Crops	3
BIOL 3023	General Genetics	3
or ANSI 3423	Animal Genetics	
CHEM 3053	Organic Chemistry I	3
or CHEM 3013	Survey of Organic Chemistry	
BIOC 3713	Biochemistry I	3

or BIOC 3653	Survey of Biochemistry	
Related Courses		
Select 9 hours of the following:		9
BIOC 2344	Chemistry and Applications of Biomolecules	
BIOC 3723	Biochemistry and Molecular Biology Laboratory	
BIOC 3813	Biochemistry II	
CHEM 3153	Organic Chemistry II	
HORT 3113	Greenhouse Management	
HORT 4133	Temperature Stress Physiology	
HORT 4953	Plant Growth and Development	
MICR 2123	Introduction to Microbiology	
MICR 2132	Introduction to Microbiology Laboratory	
MICR 3223	Advanced Microbiology	
PBIO 4005	Field Botany	
or PBIO 3114	Plant Taxonomy	
PLNT 2011	Agronomic Problem Solving	
PLP 4343	Principles of Plant Pathology	
SOIL 4483	Soil Microbiology	
ENVR 4033	Ecology of Invasive Species	
NREM 4033	Ecology Of Invasive Species	
PHYS 1014	Descriptive Physics (N)	
Upper-level PLNT		
Hours Subtotal		**39**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

If ENGL 3323 Technical Writing is used to satisfy ENGL 1213 Composition II above; hours in this block are reduced by 3.

3

If used as an additional (S) course above, hours in this block reduced by 3.

4

If used as an additional (Q) course above, hours in this block reduced by 3.

5

If used as an additional (N) course above, hours in this block reduced by 5.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Plant and Soil Sciences: Soil and Water Resources, BSAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p.)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
STAT 2013	Elementary Statistics (Q) [1]	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		3
Courses designated (DH)		3
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
CHEM 1314	Chemistry I (LN) [1]	4
Course designated (N)		3
Exploring Society & Human Behavior (S)		
AGEC 1113	Introduction to Agricultural Economics (S) [1]	3
Diversity (D)		
Courses designated (D)		
May be paired with another designated course		
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 6 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 6 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		6
Hours Subtotal		**40**
College Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
ENVR 1113	Elements of Environmental Science (N)	3
or NREM 2013	Ecology of Natural Resources	
Departmental Requirements		
Select one of the following:		3
AGCM 3103	Written Communications in Agricultural Sciences and Natural Resources	
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing [2]	
Select one of the following:		3
AGCM 3203	Oral Communications in Agricultural Sciences & Natural Resources (S)	
SPCH 2713	Introduction to Speech Communication (S)	
SPCH 3733	Elements of Persuasion (S) [3]	
PLNT 1213	Introduction to Plant and Soil Systems (N)	3
PLNT 2041	Career Development in Plant and Soil Sciences	1
PLNT 4033	Applied Agricultural Meteorology	3
PLNT 4080	Professional Internship	3
or PLNT 4990	Senior Thesis in Plant and Soil Sciences	
PLNT 4571	Professional Preparation in Plant and Soil Sciences	1
SOIL 2124	Fundamentals of Soil Science (N)	4
SOIL 4234	Soil Nutrient Management	4
Select one of the following:		3
MATH 1513	College Algebra (Q) [4]	
MATH 2103	Business Calculus (Q)	
MATH 2144	Calculus I (Q)	
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
CHEM 1515	Chemistry II (LN) [5]	5
or CHEM 1225	Chemical Principles II (LN)	
Select one of the following:		4
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
BIOC 2344	Chemistry and Applications of Biomolecules	
PHYS 1014	Descriptive Physics (N)	
PHYS 1114	College Physics I (LN)	
Hours Subtotal		**45**
Major Requirements		
Core Courses		
SOIL 3033	Soils and Societies (S)	3
SOIL 3433	Soil Genesis, Morphology, and Classification	3
SOIL 4363	Environmental Soil Science	3
SOIL 4483	Soil Microbiology	3
SOIL 4683	Soil, Water, and Weather	3
SOIL 4893	Environmental Soil Chemistry	3
GEOL 1114	Physical Geology (LN)	4
GEOL 4463	Physical Hydrogeology	3

or NREM 4443	Watershed Hydrology and Water Quality	
Related Courses		
Select 10 hours of the following:		10
GEOL 1224	Evolution of the Earth (LN)	
GEOL 2254	Practical Mineralogy	
Upper-division GEOL courses		
SOIL 4213	Precision Agriculture	
SOIL 4463	Soil and Water Conservation	
SOIL 4470	Problems and Special Study	
PLNT 2011	Agronomic Problem Solving	
PLNT 4443	Cropping Systems	
PLNT 4470	Problems and Special Study	
Other upper-division PLNT courses		
ENVR 3113	Environmental Sampling and Analysis	
ENVR 4033	Ecology of Invasive Species	
NREM 3012	Applied Ecology Laboratory	
NREM 3013	Applied Ecology and Conservation	
NREM 3613	Principles of Rangeland Management	
NREM 4033	Ecology Of Invasive Species	
NREM 4043	Natural Resource Administration and Policy	
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	
GEOG 3023	Climatology (N)	
GEOG 3033	Meteorology (N)	
GEOG 3153	Conservation of Natural Resources (S)	
GEOG 4333	Remote Sensing	
AGEC 3503	Natural Resource Economics	
AGEC 3703	Issues in Agricultural Policy	
AGEC 3713	Agricultural Law	
Upper-division HORT or PLP courses that will count towards chosen minor		
Hours Subtotal		**35**
Electives		
Select 0 hours or hours to complete required total for degree		0
Total Hours		**120**

1

College & Departmental requirements that may be used to meet General Education requirements.

2

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If used as an additional (S) course above, hours in this block reduced by 3.

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If used as an additional (Q) course above, hours in this block reduced by 3.

5

If used as an additional (N) course above, hours in this block reduced by 5.

Other Requirements

- A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
- A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Soil Science (SOIL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 19

Code	Title	Hours
Minor Requirements		
SOIL 2124	Fundamentals of Soil Science (N)	4
Select one of the following:		3
BAE 2013	Computational Methods in Biosystems Engineering	
CIVE 3813	Environmental Engineering Science	
ENVR 1113	Elements of Environmental Science (N)	
HORT 1013	Principles of Horticultural Science (LN)	
NREM 2013	Ecology of Natural Resources	
PLNT 1213	Introduction to Plant and Soil Systems (N)	
Select two of the following:		6
SOIL 3433	Soil Genesis, Morphology, and Classification	
SOIL 4234	Soil Nutrient Management	
SOIL 4483	Soil Microbiology	
SOIL 4683	Soil, Water, and Weather	
SOIL 4893	Environmental Soil Chemistry	
Select two of the following:		6
SOIL 3033	Soils and Societies (S)	
SOIL 4213	Precision Agriculture	
SOIL 4363	Environmental Soil Science	
SOIL 4463	Soil and Water Conservation	
Total Hours		**19**

- A grade-point average of 2.0 for courses that count for the minor.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

SCHOOL OF GLOBAL STUDIES

College Administration

Randy Kluver, PhD—Dean
Jami Fullerton, PhD—Associate Dean, Director of Academic Programs
Bailey Bryan, MS—Graduate Program Coordinator/Advisor
Ana Segoviano—Administrative Assistant

Campus Address and Phone

Address: 204 Wes Watkins Center, Stillwater, OK 74078
Phone: 405-744-6609
Email: i-study@okstate.edu
Website: http://global.okstate.edu

Mission

In keeping with OSU's commitment as a land-grant institution, the School of Global Studies is focused on preparing students to address critical global challenges. Our curriculum reflects a global orientation to understanding issues such as economic development, geopolitics, crisis management, global trade, and public diplomacy.

Academic Programs

The School of Global Studies offers an interdisciplinary Master of Science degree in Global Studies and an undergraduate, interdisciplinary minor in International Studies.

The Master of Science degree in Global Studies is designed to prepare students to cope with international responsibilities and address world problems that confront individuals working in the public and private sectors around the world. The curriculum is designed to educate students in the challenges and issues facing local and global communities, with an emphasis on understanding the economic, political, environmental, social, and cultural contexts that drive contemporary society. This interdisciplinary structure allows our students to draw from the best courses that Oklahoma State University has to offer, as well as to gain a global skill-set that will allow graduates to influence the world in a variety of career paths.

The graduate program in global studies is designed to prepare students for internationally-oriented careers in a number of professional contexts including business, trade development, cultural industries, nonprofit organizations, media, and public and international policy. The program at OSU emphasizes the real challenges that face developing and developed nations alike, and seeks to bring a global problem-solving perspective to address those challenges. Students have opportunities to participate in research or internships abroad, tailor coursework to meet their educational needs, and to gain skills necessary to compete and thrive in an ever-growing global society. Graduates of the program work in numerous industries around the world including business, non-profit organizations, or government service around the world.

There are two tracks within the program: thesis and non-thesis.

Thesis Track: 33 hours of coursework including 6 hours of thesis

Non-thesis Track: 33 hours of coursework including 3 hours of capstone experience

This interdisciplinary program allows students to choose from one of four focus areas. Additionally, students are required to take an introductory course (GS 5013 – Contemporary Issues) and a graduate-level research course. Candidates for the master's degree must also demonstrate foreign language proficiency and complete an international experience.

Depending on whether the student chooses the thesis or non-thesis track, the number of focus area courses will vary from 9-12 hours chosen from a list that are offered by departments across campus.

Focus Areas Include:

- Global Trade
- Global Communication and Public Diplomacy
- Global Leadership and Development
- Global Crisis Management

Iranian and Persian Gulf Studies

The Iranian and Persian Gulf Studies program offers courses, seminars, visiting speakers, workshops, courses and other programs that allow OSU faculty and students to better understand Iran, its history, society and current challenges, and its relationship to the US and other nations. The IPGS program also administers the Farzaneh Professorships in Iranian Studies, which allow OSU faculty to develop specific research areas related to Iran and its region.

Global Briefing Series

The School of Global Studies sponsors presentations from noteworthy speakers to provide background and commentary on important global issues, whether economic, geopolitical, social or other. The speakers add significant international perspective for the OSU community, and allow students and faculty access to top global thought leaders and insight into trends that are facing the world.

Admissions

Application to the School of Global Studies Graduate Program is made through a central online application process (https://go.okstate.edu/apply/) administered by the Oklahoma State University Graduate College.

The School of Global Studies has floating deadlines for Fall, Spring, and Summer semesters. The priority deadline is November 1st for Spring and April 1st for Fall. Applying by the priority deadline will allow applicants to receive priority consideration for graduate assistantships available for the term.

To apply, students must provide their transcripts, resume, statement of purpose and the names and email addresses for three people who can provide a recommendation for them. The School of Global Studies does not require students to take the GRE or GMAT for admission.

English Proficiency Requirement

The School of Global Studies does not have English proficiency requirements beyond those required by the OSU Graduate College (https://admissions.okstate.edu/information/international/admission-requirements.html).

Foreign Language Requirement

The foreign language requirement is designed to ensure that all students who graduate from the School of Global Studies Graduate Program have language skills to successfully embark upon global careers.

To fulfill the foreign language requirement, native speakers of English must have accomplished:

1. Complete 6 semester hours of a second language during their undergraduate or graduate studies.
2. Obtain an intermediate level rating on the ACTFL Oral Proficiency Interview (OPI). For more information on the OPI, see the website at www.actfl.org (http://www.actfl.org).
3. Complete a department-approved Foreign Language Immersion Program.

This requirement must be completed prior to graduation from the School of Global Studies Graduate Program. Language courses may be completed at OSU or outside institutions during your time in the program. We also accept previous coursework in foreign language but may ask for proof of completion.

International Experience Requirement

Students from the U.S. must have an international experience to qualify for the Master of Science in Global Studies degree. The time outside the U.S. must be a minimum of 3 weeks, involve a structured program of coursework or internship, and have occurred during the student's undergraduate or graduate programs. Due to the great variety of opportunities available, the international experience must be approved by the SGS Director of Academic Programs.

Student Clubs and Honor Societies

Student Association of Global Affairs (SAGA)
Model United Nations
Sigma Iota Rho Honor Society for International Studies
Phi Beta Delta Honor Society for International Scholars

Scholarships

The School of Global Studies Graduate Program offers a number of fellowships and scholarships to students every year. To apply, students will submit one application, which will consider them for all scholarships and fellowships. Applications must be submitted to i-study@okstate.edu or in person to 204 Wes Watkins Center.

- Dambach Endowed Peacebuilder Fellowships
- The Lawrence L. Boger Distinguished Graduate Fellowship
- The Wes and Lou Watkins Distinguished Graduate Fellowship
- The Dr. James G. Hromas Distinguished Graduate Fellowship
- Hugh Rouk Fellowship
- Jud and Vera Milburn Fellowship
- Meredith Woodruff and Donald Garner Endowed Scholarship
- Raymond Sidwell Family Endowment for International Outreach Scholarship
- Emma Adele and Thomas Bennett Endowed Scholarship
- Cole-Hamm Scholarship in Global Studies
- Les Martin Endowed Graduate Fellowship
- Hyatt Distinguished Graduate Fellowship
- Wes Watkins Global Trade Fellowship

Undergraduate Minor in International Studies

The minor in international studies provides undergraduate students with the opportunity to include an international dimension to any academic major. This interdisciplinary minor offers flexible course selection outside of the major and encourages students to understand social, political, economic and cultural contrasts throughout the world. The minor is designed to give students a background in global studies to supplement their chosen career path. Students should contact their undergraduate advisor to declare the minor. The minor must be declared prior to the semester of graduation.

Students structure the minor from courses containing the international dimension designation (12 hours) as well as one core course in Global Studies (GS 2013, 3 hours) and one international experience (3 hours), such as study abroad. No more than 6 hours of coursework may be taken in any single discipline (course prefix). In addition, each student must complete 6 credit hours of a foreign language or provide proof of foreign language competency. A minimum grade-point average of 2.0 is required in coursework to complete the minor.

Courses

GS 2013 UN Sustainable Development Goals (G)
Description: This course examines current issues and problems facing the globe and introduces students to the historical, geopolitical and cultural aspects surrounding these issues. The course is structured around the UN Sustainable Development Goals (UN SDGs), which are a universal call to action that unite the world in addressing some of the world's most complex issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Global Studies
General Education and other Course Attributes: International Dimension

GS 4020 Independent Study
Prerequisites: Instructor Permission.
Description: Directed study in student's area of interest. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours. Previously offered as INTL 4020.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 4070 Special Topics in International Studies
Description: Selected topics in Global Studies. Course content varies by semester. Possible course topics include, International Business and Trade, Public Diplomacy, International Communications, International Development and Leadership, Global Crisis Response and Management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. May not be used for degree credit with GS 5070.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Global Studies

GS 4110 Internship in Global Studies
Prerequisites: Instructor Permission.
Description: Internship in Global Studies. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours. Previously offered as INTL 4110.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 4200 Study Abroad
Prerequisites: Consent of instructor and consent of SGSP Director of Academic Programs.
Description: Academic work abroad on either a group or individual basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 4200. May not be offered for degree credit with GS 5200.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5000 Master's Thesis
Prerequisites: Graduate standing and consent of advisor.
Description: For students studying for a master's degree in global studies under the thesis option. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5000.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5013 Contemporary Issues in Global Studies
Prerequisites: Enrollment in MS program in Global Studies or enrollment in an OSU graduate program and consent of instructor.
Description: Examination of major transnational issues and associated problems of international cooperation, including ethnic conflicts, environmental degradation, global standards for human rights, and economic globalization. Previously offered as INTL 5010 and INTL 5013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5020 Independent Study
Prerequisites: Consent of supervising faculty member.
Description: Readings and directed study in student's focus area. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5020.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies
Additional Fees: Study Abroad fee of $200 applies.

GS 5043 Politics of the Global Economy
Prerequisites: Graduate standing.
Description: Theory and practice of international political economics. The patterns and associations between political and market-based processes among nation states. Emphasis on interactions among advanced industrial states, transnational phenomena, and opportunities and pitfalls in north-south relations. Same course as POLS 4043. Previously offered as INTL 5213 and INTL 5043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5070 Special Topics in Global Studies
Prerequisites: Graduate standing.
Description: Selected topics in Global Studies. Course content varies by semester. Possible course topics include, International Business and Trade, Public Diplomacy, International Communications, International Development and Leadership, Global Crisis Response and Management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. May not be used for degree credit with GS 4070.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5100 Research in Global Studies
Prerequisites: Graduate standing.
Description: Individually supervised research on topic within the student's focus area for the Global Studies Program. Offered for variable credit, 3-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5100.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5110 Internship in Global Studies
Prerequisites: Graduate standing and consent of Director.
Description: Individually supervised internships in international career areas. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5110.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies

GS 5133 Research Design and Methods for Global Studies
Prerequisites: Graduate standing.
Description: This course is designed to provide graduate students with training in how to design and complete an independent research project in Global Studies. This includes formulation of a research question or topic, conducting a literature review, planning the logistics of research, writing in a scholarly fashion, and seeking to publish the results.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5200 Study Abroad
Prerequisites: Graduate standing, consent of instructor, and consent of SGSP Director of Academic Programs.
Description: Academic work abroad on either a group or individual basis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours. Previously offered as INTL 5200. May not be offered for degree credit with GS 4200.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Global Studies
Additional Fees: Study Abroad fee of $200 applies.

GS 5213 Global Trade Economics
Prerequisites: Honors College participation.
Description: This course presents an introduction to economic issues from a global perspective for the non-specialist. It emphasizes the problems and challenges the process of globalization poses to national economies. The first part of the course presents the main theories of international trade and their relevance to explaining current global trade patterns. The second part of the course examines the foreign exchange markets. It covers various international financial issues such as global current account imbalances, the role of the dollar in international financial markets and trade finance. Same course as ECON 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5223 Culture, History and World Systems
Prerequisites: Graduate standing.
Description: Study of the impact and influence of culture and history on the development of contemporary world systems with future projections. Same course as SOC 5223. Previously offered as INTL 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5233 Global Competitive Environment
Description: Development of a global business strategy for the organization. Issues of highly diversified markets and business environments, global competition, financial markets, and complex organizational relationships. Same course as MKTG 5233. Previously offered as INTL 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5243 Trade and Investment Promotion
Description: The purpose of this course is to help students develop an understanding of the factors and processes that shape global investment and trade promotion policies across all sectors of an economy. The course will delve into how various factors work together to influence a country's attraction as an investment destination and the policies used to retain and sustain foreign investments in host countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5313 Global Communication and Public Diplomacy
Prerequisites: Graduate standing.
Description: Global media organizations have become players in international politics, and in how cultures define themselves. This course will explore a number of intersections of culture, media, and communication, with particular emphasis on the role of media and communication in public diplomacy. By examining the academic and popular literature on global media, international relations, and globalization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5323 Nation Branding
Prerequisites: Graduate standing.
Description: Nation branding is defined for this course as the strategic act of shaping a country's reputation and country image through the use of branding techniques. This course will explore America's image abroad and attempt to understand the recent rise of anti-Americanism, as well as look at nation branding in other countries. May not be used for degree credit with MC 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5333 Certified Global Business Professional
Description: This course deals with the practicalities of international trade. Topics include finding appropriate partners, international pricing, legal considerations, tax and accounting issues. International marketing and cultural issues are also addressed. The course is designed to prepare students to successfully complete certification as a Global Business Professional (CGBP certification). Previously offered as INTL 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5343 Geopolitics of New Media
Prerequisites: Graduate standing.
Description: Examines the geopolitical impact of new media, including satellite television, various digital and internet technologies, and social media by exploring the ways in which the advent and development of new media have shaped larger geopolitical currents. May not be used for degree credit with MC 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5413 Global Development
Prerequisites: Graduate standing.
Description: Examines effective principles and practices of international development and provides a thorough understanding of current issues in development by guiding students to an understanding of how development issues are being approached, what methodologies are effective, and how to use the tools of development. Same course as AGIN 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5443 Refugees & Forced Migration
Description: Millions of people in the world experience forced displacement from their homes due to intersecting factors like armed conflict, natural disasters, and persecution due to race, religion, nationality — among other threats to their safety and well-being. in this interdisciplinary and cross-regional course, students examine the intersecting legal, political, social, economic, and cultural dimensions of forced migration from the second half of the 20th century to today. Particular attention Is paid to the experiences of refugees, as well as to legal and policy approaches, humanitarian responses, and media and cultural representations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5513 Global Crisis Management
Prerequisites: Graduate standing.
Description: Provides graduate introduction to Global Crisis Management. Students will learn about topics ranging from emergency management, disaster management to crisis management on the global stage. This includes examining the global system for dealing with disasters and crises that cross international borders, and the agencies and organizations that respond.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5523 Transnational Criminal Organizations and the War on Drugs
Description: This course will offer an analysis of transnational organized crime and its impact on societies around the world. It will focus on drug trafficking, human trafficking, and arms dealing. It will also examine policy responses and their effectiveness.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5533 Complex Emergencies
Prerequisites: Graduate standing.
Description: This course examines complex emergencies from an emergency management perspective. We will look at the collapse of governance, the causes of armed conflict, food insecurity, infectious disease, natural disasters, and so on, and examine specific cases in detail. Furthermore, we will look at how the international community responds to these crises, and which agencies are involved in relief efforts. We will apply the traditional four phases of disaster management to these situations. This course is the same as FEMP 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5543 International Dimensions of Fire and Emergency Management
Prerequisites: Graduate standing.
Description: Examines disasters in an international context as well as the theory and practice of international disaster management. This course is the same as FEMP 6313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

GS 5553 Global Poverty and Inequality
Description: In this course, we will examine the root causes of poverty and inequality on a global scale. We will look at the micro-level, examining coping strategies of the poorest, as well as at the macro level, examining both rich and poor economies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Global Studies

Minors

International Studies (INTL), Minor (p. 2717)

Graduate Programs
Global Studies, MS

The Master of Science degree in Global Studies is designed to prepare students to cope with international responsibilities and address world problems that confront individuals working in the public and private sectors around the world. The curriculum is designed to educate students in the challenges and issues facing local and global communities, with an emphasis on understanding the economic, political, environmental, social, and cultural contexts that drive contemporary society. This interdisciplinary structure allows our students to draw from the best

courses that Oklahoma State University has to offer, as well as to develop globalized, multi-skilled talents that will influence the world in a variety of career paths. For MS program requirements, click here (p. 3238).

Global Issues, GCRT

The Global Issues Graduate Certificate allows students to complement their primary area of graduate study with an international dimension. The interdisciplinary curriculum for this program provides students with a better understanding of global problems as well as world politics and culture. The certificate program better prepares graduates to apply their current graduate studies and related real-world experiences to careers in an ever-changing global environment. For Global Issues GCRT requirements, click here (p. 3097).

International Disaster and Emergency Management, GCRT

The Graduate Certificate in International Disaster and Emergency Management (IDEM) prepares students to cope with global crisis and emergency response by examining the global systems for dealing with disasters and crises that cross international borders, and the agencies and organizations that respond. The IDEM Graduate Certificate is a blend of Global Studies courses and Fire and Emergency Management Program (FEMP) courses. Students complete a set of core courses in each program, then select elective courses to focus their studies in topics ranging from emergency management, disaster management to crisis management on the global stage. For International Disaster and Emergency Management GCRT requirements, click here (p. 3112).

International Studies (INTL), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Jami Fullerton, PhD, 405-744-6609, jami.fullerton@okstate.edu (Jami.fullerton@okstate.edu)

Total Hours: 18

Code	Title	Hours
Required Course		
GS 2013	UN Sustainable Development Goals (I)	3
Other Courses		
Any International Dimension Designated General Education Courses (I)		12
Students may choose courses from any International Dimension designated General Education Course. International Dimension designated courses help students understand cultures outside the United States and how they fit into the global community. Select 12 hours with no more than 6 hours from any one prefix.		
Study Abroad/International Experience		
Select 3 credit hours.		3
Each student must have an international experience. This will typically be in the form of a Study Abroad program, international internship, or Foreign Service Learning program.		
Total Hours		**18**

Other Requirements

- Plus 6 hours of one foreign language or equivalent proficiency.
  - Each student must complete the equivalent of 6 semester hours of foreign language (defined as a language that is not the student's native language). Students with established proficiency may be exempted by examination. Information on examinations may be obtained from the Office of Testing and Evaluation or the Foreign Language Laboratory.
  - International students are exempted from this requirement.
  - Students may count language coursework taken to meet requirements for their major or other programs.
  - American Sign Language and computer languages do not meet the foreign language requirement
- GPA of 2.0 in upper-division courses.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

SPEARS SCHOOL OF BUSINESS

College Administration

James E. Payne, PhD—Dean
Teresa Lightner, PhD—Associate Dean
Marlys Mason, PhD—Associate Dean
Brijesh Thapa, PhD—Vice Dean

Campus Address and Phone

Address: 370 Business Building, Stillwater, OK 74078
Phone: 405-744-5064
Website: business.okstate.edu (http://spears.okstate.edu)

The Spears School of Business focuses on preparing students to make a difference in the world by teaching essential interpersonal skills alongside a high-quality business education backed by impactful research and outreach.

We live in a deeply interconnected world where business is personal while simultaneously more distant. In this world, companies rise and fall based on the strength and success of the relationships they forge.

Spears Business prepares our students for this world by having them live and learn in an environment where personal connections are paramount and academic excellence is strengthened by interpersonal prowess. We take soft skills seriously. We study business collaboratively. We use technology to include and never to exclude. Community isn't just a byproduct of what we do. At Spears, we empower students to follow their own dreams, not the dream we have for them–because the purpose of business isn't just individual gain, but a gain for every individual.

With an emphasis on people and community, we ensure our students are just as real as they are ready. In a rapidly changing world, the only constant is people. This is why students choose Spears, why employers choose our graduates and why we make business personal.

Accreditation

The Spears School of Business (business.okstate.edu (http://spears.okstate.edu)) at Oklahoma State University is accredited by The Association to Advance Collegiate Schools of Business (AACSB International).

High School Preparation

Although a sound high school program is adequate preparation, prospective business students will benefit from a strong background in English and mathematics. Also, coursework in history and government, science, geography, computer science, foreign language and public speaking will be quite valuable.

Scholarships

Oklahoma State University has an extensive scholarship program which includes entering freshmen. For full consideration as a prospective student, applications should be sent to the OSU Office of Scholarships and Financial Aid by November 1 during one's senior year in high school. Spears School of Business scholarships are primarily designated for sophomores, juniors and seniors. Scholarship awards are based on academic performance, participation, leadership and need, and applications must be received by mid-January.

Academic Advisement and Enrollment Procedure

The Chesapeake Energy Business Student Success Center believes in a holistic approach to advising. After admission to OSU, each undergraduate student is assigned an academic counselor who is eager to help students create an academic plan of action, guide them toward university resources and serve as a mentor. The professional academic counselors are invested in each student's collegiate life, as well as their success at OSU and beyond. The Business Student Success Center provides a link between the Spears Business and other university resources that are available to facilitate student success.

Academic Programs

Undergraduate Programs

The Bachelor of Science in Business Administration degree is offered by four departments and four schools. Departmental majors are listed below.

- Accounting, with majors in accounting (with options in external reporting, control, and auditing and internal reporting, control, and auditing) and accounting systems (with options in cyber audit and data analytics).
- Economics, with majors in economics (with options in business economics and quantitative studies and pre-law) and general business (with an option in pre-law).
- Entrepreneurship, with a major in entrepreneurship.
- Finance, with a major in finance and options in commercial bank management, financial analyst, and pre-law.
- Hospitality and Tourism Management, with majors in hospitality and tourism management (with options in beverage management and event management) and real estate and property management.
- Management, with a major in management with options in business sustainability and nonprofit management, human resource management, management consulting, pre-law, and sports management.
- Management Science and Information Systems, with majors in management information systems (with options in data science and information assurance) and data analytics.
- Marketing and International Business, with majors in marketing (with options in marketing research and analytics, professional selling and sales management, marketing communications management, sports marketing and revenue generation, and supply chain management) and international business.

Additional information about the undergraduate programs in the Spears School of Business can be found on the Internet at https://business.okstate.edu/departments_programs/index.html (https://business.okstate.edu/departments_programs/).

Outstanding students in the Spears School of Business who meet the requirements of the Honors College may earn various honors designations while completing their undergraduate degree in this School. For more information, please refer to the Honors College (p. 2917) information in the Catalog.

Master's Degree Programs

Two types of master's degrees are available to students desiring to undertake advanced work in the business area, specialized master's of science degrees and the interdisciplinary Master of Business Administration degree.

The Master of Business Administration degree allows graduate certificate course embedding to specialize the MBA in areas of accounting, business analytics and data science, business sustainability and nonprofit management, entrepreneurship, finance and investment banking, general business, health analytics, hospitality and tourism analytics, human resource management, and information assurance. The following identifies where additional information about this degree can be found in the Catalog:

- The Master of Business Administration degree. See "Business Administration (https://business.okstate.edu/watson/mba/)."

The Master of Science degree requires completion of a graduate major in accounting, economics, management information systems, business analytics and data science, quantitative finance or HTM. Most of our programs are offered on a full-time basis in Stillwater, and part-time in Tulsa as well as online. Please see specific program websites for details. The following identifies where additional information about these degrees can be found in the Catalog:

- Master of Science in Accounting degree. See "School of Accounting (p. 2852)."
- Master of Science in Business Analytics and Data Science degree. See “School of Marketing and International Business (p. 2882).”
- Master of Science in Economics degree. See "Department of Economics and Legal Studies in Business (p. 2726)." (Currently not admitting new students.)
- The Master of Science in Management Information Systems (MIS) degree. See "Department of Management Science and Information Systems (p. 2822)."
- Master of Science in Quantitative Financial Economics degree. See "Department of Finance (p. 2747)."
- Master of Science in Hospitality and Tourism Management degree. See "Department of Hospitality and Tourism Management (p. 2767)."

Doctor of Philosophy Degree Programs

Graduate work toward the Doctor of Philosophy degree with a major in economics is offered in the Department of Economics. Graduate work toward the Doctor of Philosophy degree with a major in business administration is offered in the departments of Finance, Management, Management Science and Information Systems, the School of Accounting, the School of Entrepreneurship, the School of Hospitality and Tourism Management, and the School of Marketing and International Business. The Spears School also offers a PhD in Business Administration and a Doctor of Business Administration (DBA) that are tailored for executives.

Additional information about PhD programs can be found in the "Business Administration (p. 2914)" section as well as in the various departmental sections.

General Education Requirements

During the freshman and sophomore years, the student will complete courses in each of the following areas:

- Behavioral and social sciences: American history, three semester credit hours; American government, three hours; and three hours elected from courses identified by the University as satisfying social science (S) credit. MGMT 3013 and MKTG 3213, which are required courses for all business majors also carry a social science (S) designation.
- Humanities and fine arts: Six semester credit hours elected from courses identified by the University as satisfying humanities (H) credit.
- Natural science and mathematics: A minimum of 10-13 semester credit hours with the specific number of required hours in mathematics and natural science varying with the major chosen. Specific requirements for each major are published by the University in the book Undergraduate Programs and Requirements. MSIS 2233, which is a required course for all business majors also carries an (A/Q) designation.
- Communications: English composition, six semester credit hours. For non-business students, the University prerequisite for upper-division courses applies. (See "Academic Regulations (p. 1004)" in the Catalog.)
- General electives: In addition, the student may elect courses from any area except lower-division aerospace studies and military science and LEIS and HHP activity courses to complete degree requirements.
- As part of the student's general education, one course must be selected that is identified as satisfying the global dimension (G) requirement and one must be selected to satisfy the diversity (D) requirement.

Credits earned during the freshman and sophomore years at a two-year college may not be substituted for junior and senior course requirements in majors in the Spears School of Business.

The Eastin Center for Career Readiness

The Eastin Center for Career Readiness provides students with resources to build interpersonal skills and professionalism while ensuring graduates are job ready. The center unites career readiness, career services, and corporate engagement. Programs which begin with the first-year experience and extend through the student’s time at OSU, integrate career development and employer engagement. The career coaches within Spears Business work closely with recruiters and corporate partners to connect students with numerous networking activities. The center also provides students with a direct link to OSU Career Services and showcases the Korn Ferry professional development competency.

Departmental Clubs and Honor Societies

African American Business Students Association
American Association of University Women
American Hotel and Lodging Association Student Chapter
Association of Information Technology Professionals
Beta Alpha Psi (accounting honor society)
Beta Gamma Sigma (business honor society)
Business Analytics Student Association
Brand Squad
Business News Club
Business Student Council
Club Managers Association of America
Cowboy Energy Club
Data Analytics Club
Delta Sigma Pi (coed business fraternity)
Economics Society

Entrepreneurship Club
Eta Sigma Delta (HTM honor society)
Financial Management Association
Graduate Leadership Association of Spears
Hospitality Administration Graduate Student Association
HTM Club
Human Resource Management Association
Information Security and Assurance Club
International Business Club
Latino Business Student Association
Marketing Club
MBA Association
Meeting Professionals International
National Society of Minorities in Hospitality
Net Impact
OSU Consulting Club
OSU Investment Banking Club
OSU Pre-Law Club
Sales Club
Spears Ambassadors
Spears Freshman Community
Spears Transfer Community
Sports Management Club
Sports Marketing and Revenue Generation Club (Sports Sales Club)
Student Center for Public Trust (Student CPT)
Supply Chain Management Club
Women in Business
Women in Technology

Academic Areas

- Economics (p. 2726)
- Finance (p. 2747)
- Hospitality and Tourism Management (p. 2767)
- Management (p. 2791)
- Management Science and Information Systems (p. 2822)
- School of Accounting (p. 2852)
- School of Entrepreneurship (p. 2873)
- School of Marketing and International Business (p. 2882)
- Watson Graduate School (p. 2914)

Undergraduate Programs

- Accounting Systems: Cyber Audit, BSBA (p. 2862)
- Accounting Systems: Data Analytics, BSBA (p. 2864)
- Accounting: External Reporting, Control, and Auditing, BSBA (p. 2867)
- Accounting: Internal Reporting, Control and Auditing, BSBA (p. 2870)
- Data Analytics, BSBA (p. 2836)
- Economics, BSBA (p. 2736)
- Economics: Business Economics and Quantitative Studies, BSBA (p. 2738)
- Economics: Pre-Law, BSBA (p. 2740)
- Entrepreneurship, BSBA (p. 2879)
- Finance: Commercial Bank Management Option, BSBA (p. 2757)
- Finance: Financial Analyst Option, BSBA (p. 2759)
- Finance: Financial Planning, BSBA (p. 2761)
- Finance: General Option, BSBA (p. 2763)
- Finance: Pre-Law, BSBA (p. 2765)
- General Business, BSBA (p. 2743)
- General Business: Pre-Law, BSBA (p. 2745)
- Hospitality and Tourism Management, BSBA (p. 2781)
- Hospitality and Tourism Management: Event Management, BSBA (p. 2783)
- International Business, BSBA (p. 2894)
- Management Information Systems, BSBA (p. 2843)
- Management Information Systems: Data Science, BSBA (p. 2846)
- Management Information Systems: Information Assurance, BSBA (p. 2848)
- Management, BSBA (p. 2807)
- Management: Business Sustainability and Nonprofit Management, BSBA (p. 2809)
- Management: Human Resource Management, BSBA (p. 2812)
- Management: Management Consulting, BSBA (p. 2814)
- Management: Pre-Law, BSBA (p. 2816)
- Management: Sports Management, BSBA (p. 2818)
- Marketing, BSBA (p. 2900)
- Marketing: Marketing Communications Management, BSBA (p. 2902)
- Marketing: Marketing Research and Analytics, BSBA (p. 2904)
- Marketing: Professional Selling and Sales Management, BSBA (p. 2906)
- Marketing: Sports Marketing and Revenue Generation, BSBA (p. 2908)
- Marketing: Supply Chain Management, BSBA (p. 2910)
- Real Estate and Property Management, BSBA (p. 2787)

Certificates

Undergraduate Certificates

- Accounting, Systems, and Auditing, UCRT (p. 2866)
- Business Analytics, UCRT (p. 2834)
- Business Essentials, UCRT (p. 2724)
- Business Financial Essentials, UCRT (p. 2725)
- Casino, Gaming and Resort Management, UCRT (p. 2777)
- Computational Economics and Data Analysis, UCRT (p. 2734)
- Cyber Systems, UCRT (p. 2835)
- Data Systems, UCRT (p. 2839)
- Event Management, UCRT (p. 2779)
- Global Beverage Business, UCRT (p. 2780)
- Information Systems Development, UCRT (p. 2841)
- International Business, UCRT (p. 2897)
- Marketing Essentials for Business Success, UCRT (p. 2899)
- Property and Real Estate Management, UCRT (p. 2786)
- Sales and Service Excellence, UCRT (p. 2912)
- Sports Marketing and Revenue Generation, UCRT (p. 2913)
- Starting and Growing a New Business, UCRT (p. 2881)
- Supply Chain Management, UCRT (p. 2851)
- Sustainable Business Management, UCRT (p. 2821)
- Travel and Tourism Management, UCRT (p. 2790)

Minors

- Accounting (ACCT), Minor (p. 2861)
- Business Sustainability and Nonprofit Management (BSNM), Minor (p. 2804)
- Data Science (DS), Minor (p. 2838)
- Economics (ECBU), Minor (p. 2735)
- Energy Finance (EFIN), Minor (p. 2755)
- Entrepreneurship (EEE), Minor (p. 2878)
- Event Management (EVMG), Minor (p. 2778)
- Finance (FIN), Minor (p. 2756)
- General Business (GNBU), Minor (p. 2742)
- Hospitality Business Administration (HOSB), Minor (p. 2785)
- Human Resource Management (HRM), Minor (p. 2805)
- Information Assurance (IA), Minor (p. 2840)
- International Business (INBU), Minor (p. 2893)
- Management (MGMT), Minor (p. 2806)
- Management Information Systems (MIS), Minor (p. 2842)
- Marketing (MKTG), Minor (p. 2898)
- Sports Management (SPMG), Minor (p. 2820)

Graduate Programs Masters/Doctoral Degrees

- MBA (Overview (https://business.okstate.edu/departments_programs/watson/mba/) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/business-administration-mba/))
- MS in Accounting ((Overview (https://go.okstate.edu/graduate-academics/programs/masters/accounting-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/accounting-corporate-finance-ms/))
  - Corporate Finance (Catalog (p. 3140))
  - Data Analytics & Systems (Catalog (p. 3141))
  - Financial Reporting & Auditing (Catalog (p. 3142))
- MS in Business Analytics and Data Science (Overview (https://go.okstate.edu/graduate-academics/programs/masters/business-analytics-and-data-science-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/business-analytics-data-science-ms/))
  - Advanced Data Science (Catalog (p. 3166))
  - Cybersecurity Analytics (Catalog (p. 3167))
  - Health Analytics (Catalog (p. 3168))
  - Marketing Analytics (Catalog (p. 3169))
- MS in Economics (Overview (https://go.okstate.edu/graduate-academics/programs/masters/economics-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/economics-ms/))
- MS in Hospitality and Tourism Management (Overview (https://go.okstate.edu/graduate-academics/programs/masters/hospitality-and-tourism-management-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/hospitality-tourism-management-ms/))
- MS in Management Information Systems (Overview (https://go.okstate.edu/graduate-academics/programs/masters/management-information-systems-and-information-assurance-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/management-information-systems-ms/))
  - Big Data Analytics (Catalog (p. 3263))
  - Cybersecurity (Catalog (p. 3264))
  - Health Analytics (Catalog (p. 3265))
- MS in Quantitative Finance (Overview (https://go.okstate.edu/graduate-academics/programs/masters/quantitative-financial-economics-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/quantitative-financial-economics-ms/))
- PhD in Business Administration (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-phd.html))
  - Accounting (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-accounting-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-accounting-phd/))
  - Entrepreneurship (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-entrepreneurship-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-entrepreneurship-phd/))
  - Finance (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-finance-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-finance-phd/))
  - Hospitality and Tourism Management (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-htm-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-hospitality-tourism-management-phd/))
  - Management Science and Information Systems (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-management-science-and-information-systems-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-management-science-information-systems-phd/))
  - Management (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-management-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-management-phd/))
  - Marketing (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-marketing-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-marketing-phd/))
- PhD in Business for Executives (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-for-executives-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-executive-research-phd/))
- PhD in Economics (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/economics-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/economics-phd/))
- Doctor of Business Administration (Overview (https://business.okstate.edu/execdba/) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-dba/))

Graduate Certificates

- Accounting (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/accounting.html) / Catalog (http://catalog.okstate.edu/graduate-college/graduate-certificate/accounting-gcrt/))
- Business Analytics and Data Science (Overview (https://osuonline.okstate.edu/programs/certificates/business-analytics-data-science.html) / Catalog (p. 3060))
- Business Sustainability and Nonprofit Management (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/business-sustainability.html) / Catalog (http://catalog.okstate.edu/graduate-college/graduate-certificate/business-sustainability-gcrt/))
- Entrepreneurship (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/entrepreneurship.html) / Catalog (p. 3079))
- Finance and Investment Banking (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/finance-investment-banking.html) / Catalog (p. 3084))
- General Business (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/general-business.html) / Catalog (p. 3062))
- Health Analytics (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/health-analytics.html) / Catalog (p. 3099))
- Hospitality and Tourism Analytics (Catalog (p. 3105))
- Human Resource Management (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/human-resource-management.html) / Catalog (p. 3106))
- Information Assurance (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/information-assurance.html) / Catalog (p. 3108))
- Marketing Analytics (Catalog (p. 3115))

Spears Business Accreditation Accreditation

The Spears School of Business (spears.okstate.edu (http://spears.okstate.edu)) at Oklahoma State University is accredited by The Association to Advance Collegiate Schools of Business (AACSB International).

Certificates

Undergraduate Certificates

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- Starting and Growing a New Business, UCRT (p. 2881)
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- Travel and Tourism Management, UCRT (p. 2790)

Business Essentials, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Spears Business undergraduate majors are not eligible for this certificate because the business degree programs require all of this coursework.

Code	Title	Hours
Required Courses		
ACCT 2003	Survey of Accounting	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
BADM 2111	Career Planning for Business Success	1
or BADM 3111	Professional Development for Business Success	
Elective Courses		
Select 6 hours from the following:		6
EEE 2023	Introduction to Entrepreneurship	
ECON 2003	Microeconomic Principles for Business	
FIN 3113	Principles of Finance	
MSIS 2103	Business Data Science Technologies	
MSIS 3223	Principles of Data Analytics	
BADM 3113	Practical Business and Interpersonal Skills	
LSB 3213	Legal and Regulatory Environment of Business	
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Business Financial Essentials, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Spears Business undergraduate majors are not eligible for this certificate as the degree programs require all of this coursework.

Code	Title	Hours
Required Courses		
ACCT 2003	Survey of Accounting	3
ECON 2003	Microeconomic Principles for Business	3
FIN 3113	Principles of Finance	3
BADM 2111	Career Planning for Business Success	1
or BADM 3111	Professional Development for Business Success	
Electives		
Select six hours from the following:		6
EEE 2023	Introduction to Entrepreneurship	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
MSIS 2103	Business Data Science Technologies	
MSIS 3223	Principles of Data Analytics	
BADM 3113	Practical Business and Interpersonal Skills	
LSB 3213	Legal and Regulatory Environment of Business	
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Economics

Economics studies how humans make decisions and interact with one another to achieve individual or common goals when resources are not freely available to all. Our discipline is based on a simple set of principles that can be widely applied to model decision-making in nearly every form of human endeavor. Economic principles are used to guide individuals, businesses, governments, non-profit organizations, charities, foundations and churches. Ultimately, Economics is useful because of its focus on how to evaluate and predict the intended and unintended consequences of human action.

The principles provide a comprehensive view of how a society is organized to transform the limited resources available into want-satisfying goods and services. We investigate the underpinnings of the economic system and conduct research that identifies its weaknesses and strengths, which can be used to prescribe policies that will improve society. In the process, economic principles shed light on important problems confronting contemporary society—financial crises, pandemics, environmental quality, depressions, inflation, income inequality, poverty, education, development, climate change, and so on.

The primary objectives sought in the undergraduate curriculum are to develop a broad understanding and perspective of the economic aspects of people's activities coupled with thorough training in the fundamental tools of economic analyses. Elementary mathematical and statistical skills are highly desirable, as is complementary study in the social and behavioral sciences, accounting and business administration.

A major in economics prepares students for positions with business firms, non-profit private organizations and national or international government agencies. A degree option in business economics and quantitative studies is offered to provide additional training in analytical methods and communication skills for both public- and private-sector occupations. The undergraduate degree in economics also provides an excellent background for studying law or international relations and, to this end, there is a pre-law option and an international economic relations option. A student interested in pursuing graduate studies in economics should include a wide range of math courses in their undergraduate plan-of-study.

Courses

ECON 1113 The Economics of Social Issues (S)
Description: Issues-oriented approach. Basic economic principles introduced and developed through study of important social issues: for example, inflation, unemployment, poverty, discrimination, crime, population growth and environmental quality. Develops the economist's approach to social problems, and evaluates the contribution of economics to their solution. No general education credit for students also taking AGEC 1113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2003 Microeconomic Principles for Business
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations relevant to business: operation of markets for goods, services and factors of production; the behavior of firms and industries for different types of competition; and international exchange. May not be used for degree credit with ECON 2103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 2103 Introduction to Microeconomics (S)
Description: Goals, incentives and outcomes of economic behavior with applications and illustrations from current social issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition; income distribution; and international exchange. May not be used for degree credit with ECON 2003. No general education credit for students also taking AGEC 1113. Previously offered as ECON 2023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 2203 Introduction to Macroeconomics
Prerequisites: ECON 2103 or ECON 1113 or AGEC 1113 or ECON 2003.
Description: The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; monetary and fiscal policy; and aspects of international interdependence. Previously offered as ECON 2013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3010 Special Topics in Economics
Prerequisites: ECON 2203, prior approval of instructor.
Description: Analysis of a contemporary topic in economics. Course content will vary to reflect changing social issues and trends in applied economics. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 3023 Managerial Economics
Prerequisites: ECON 2103 or AGEC 1113 or ECON 2003.
Description: Application of economic theory and methodology to decision problems of private industry, nonprofit institutions and government agencies; demand and cost analysis, forecasting, pricing and investment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3033 Economics of Entrepreneurship and Innovation
Prerequisites: 3 credit hours in Economics.
Description: Explores the process of economic innovation and entrepreneurship from both microeconomic and macroeconomic perspectives. Key topics include risk and uncertainty, the psychology of innovation, institutional change, product versus process innovation, the externality of innovation, innovation profit, innovation life cycle, innovation diffusion, and business cycle instability.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3043 Real Estate Economics
Prerequisites: ECON 2003 or ECON 2103.
Description: Theoretical and empirical development of an understanding of economic factors that shape and influence markets for real property. Topics include theory of land markets and locational choice, studies of changing economic activities, demographic trends, transportation, and local government behavior as they affect real estate.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3113 Intermediate Microeconomics
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: How the market organizes economic activity and an evaluation of its performance. Principles of price theory developed and applied to the interactions of consumers, producers and resource owners in markets characterized by different degrees of competition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3123 Intermediate Macroeconomics
Prerequisites: ECON 2203 and either MATH 2103 or MATH 2144.
Description: Development of a theoretical framework for studying the determinants of national income, employment and general price level. National income accounting, consumption, investment, government spending and taxation, the supply of and demand for money. Monetary, fiscal and incomes policies considered with regard to unemployment, inflation and economic growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3213 Game Theory and Experimental Economics
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: The fundamentals of strategic actions presented in a game theory context and the validation of these ideas with economic experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3313 Money and Banking
Prerequisites: ECON 2203.
Description: The economics of money and banking. Operations of commercial banks and structure and competition of the banking industry. Organization and operation of the Federal Reserve System and its effects on interest rates, employment and prices. An introduction to monetary economics and international banking concludes the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3423 Public Finance
Prerequisites: ECON 2003 or ECON 2203.
Description: The economics of the government sector. Scope of government activity, efficiency in government expenditures, federal budget, fiscal and debt management policy. Principles of taxation. Major tax sources, tax distribution, tax issues. Current public finance problems such as revenue sharing, negative income tax, urban transport systems and national health insurance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3513 Labor Economics
Prerequisites: ECON 2003.
Description: The economic analysis of labor markets. Topics include labor supply and demand, the impact of education and training, labor migration, the structure of wages, discrimination and labor unions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3613 International Economic Relations (GS)
Prerequisites: ECON 2003 or ECON 2203.
Description: International trade and finance; international economic organizations; the foreign economic policy of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 3703 Introduction to Mathematical Economics
Prerequisites: One from each of the following groups - MATH 1483 or MATH 1513; ECON 2003 or ECON 2103.
Description: Essential mathematical knowledge suitable for economic analysis. Particular emphasis is on learning and using algebra and calculus based techniques as well as optimization theory for analyzing economic decisions. Topics covered include economic applications of basic algebra, calculus, matrix algebra, and etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3713 Introduction to Industrial Organization
Prerequisites: ECON 2003 and either MATH 2103 or MATH 2123 or MATH 2144.
Description: A branch of Microeconomics specializing in questions related to imperfect competition, effect of market structure on behavior of firms, monopoly power, anti-competitive practices and anti-trust issues. An introduction on strategic competition between firms, how this is related to market structure and market power.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3723 The Economics of Sport
Prerequisites: ECON 2103 or ECON 2003.
Description: Using economic analysis to understand the world of professional and amateur sport. Emphasis will be on economic decision-making relevant to the teams, leagues and institutions in the world of sport.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 3823 American Economy: The Past and Present (S)
Description: Economic development and economic forces in American history; emphasis upon industrialization and its impact upon our economic society since the Civil War.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: Society & Human Behavior

ECON 3903 Economics of the Environment
Prerequisites: ECON 2103 or ECON 2003.
Description: Economic and political factors that influence the formation and implementation of environmental policy. Environmental policy instruments such as pollution taxes, standards and marketable pollution permits are discussed. Measurement of environmental damages and risk are also considered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4043 Real Estate and Capital Markets
Prerequisites: ECON 2003 or ECON 2203.
Description: Understanding of how debt and equity secondary markets linked to real estate assets. Topics include the impact of institutional forces on the real estate sector, development of a framework of institutional real estate private and public equity and capital markets including the concept of market efficiency, modern portfolio theory applications, and market measures of risk and return under current and future circumstances with a particular focus on market activity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4113 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines economic theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 5733.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4213 Econometric Methods
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Basic quantitative methods used in economic analysis emphasizing applications to economic problems and interpretation of empirical results. Statistical analyses, regression and forecasting techniques using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4223 Business and Economic Forecasting
Prerequisites: ECON 2003 or ECON 2203. STAT 2013 or STAT 2023 or STAT 2053.
Description: Forecasting business and economic variables. Regression models and time series models such as exponential smoothing models, seasonal models, and Box-Jenkins models. Evaluation of methods and forecasting accuracy. Application of methods using computer programs.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4233 Econometric Applications
Prerequisites: ECON 2203 and 3 hours of statistics.
Description: Econometric applications and data analysis used to conduct economic research and policy analysis. Econometric methods include the basics of linear regression, hypothesis testing, panel data, differences-in-differences, instrumental variables, and quantile regression. The emphasis is on the development of intuition and application rather than econometric theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4643 International Economic Development (GS)
Prerequisites: ECON 2003.
Description: Problems of underdeveloped economics related to the world economy; obstacles to economic growth and policies for promoting growth.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics
General Education and other Course Attributes: International Dimension, Society & Human Behavior

ECON 4850 Applied Studies in Economics
Prerequisites: 12 credit hours in economics and consent of instructor.
Description: Structured internship or field project with supporting academic study. Offered for variable credit,1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics

ECON 4913 Urban and Regional Economics
Prerequisites: ECON 2003 or ECON 2203.
Description: Theoretical, historical, and empirical examination of the economic forces that shape growth, development, land use, and location decisions in towns, cities and regions. Presents economic explanation for several urban problems such as sprawl, segregation, crime, pollution, traffic congestion, and inadequate housing and education. The role of state and local governments in addressing these problems is discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4933 Applied Economics
Prerequisites: ECON 3113 and ECON 3123 and 6 additional hours of upper-division economics.
Description: Essential skills in applied economics, including data collection, economics analysis, and presentation of findings. Specific applications may come from international trade and finance, econometrics, energy economics, public finance, labor economics, economic history, regional economics, and development, etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Economics

ECON 4993 Economics Honors Thesis
Prerequisites: Departmental invitation, senior standing, Honors Program participation.
Description: A guided reading and research program ending with an honors thesis under the direction of a faculty member, with second faculty reader and oral examination. Required for graduation with departmental honors in economics.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Economics
General Education and other Course Attributes: Honors Credit

ECON 5000 Research and Thesis
Description: Workshop for the exploration and development of research topics. Research leading to the master's thesis. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 5003 Research Report
Prerequisites: Consent of committee chairperson.
Description: Supervised research for MS report.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5010 Research and Independent Studies
Prerequisites: Consent of departmental committee under a workshop arrangement or supervised independent studies.
Description: Offered for variable credit, 1-6 credit hours, maximum of 10 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5033 Macroeconomic Analysis
Prerequisites: Three hours of economics or consent of instructor.
Description: Study of the determinants of aggregate output, employment, price level, and interest rates, including international aspects. Monetary, fiscal, and exchange rate policies and impact on the macroeconomy and business environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5043 Microeconomic Analysis
Prerequisites: ECON 3113 and MATH 2144 or consent of instructor.
Description: A calculus-based microeconomics course developing basic consumer, producer, and equilibrium models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5113 Managerial Economics
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Economic theory applied to business decision-making. Concepts of microeconomics and macroeconomics related to understanding the economic system, analysis of policy, forecasting, and international economics. No credit for PhD students in economics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5173 Energy Economics
Prerequisites: ECON 5113 or ECON 2103 or equivalent.
Description: Develop tools necessary to examine energy markets from an economics perspective and discuss aspects of local, national and global markets for oil, natural gas, coal, electricity, and renewable energy. The course examines public policies affecting energy markets including taxes, regulation, energy efficiency and control of emissions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5213 Introduction to Econometrics
Prerequisites: STAT 3013 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. A review of basic probability and statistics, linear regression with one or more explanatory variables, binary dependent variables regression, instrumental variables regression, the use of panel data, and program evaluation. Assessment of the internal validity of estimated models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ECON 5263 Introduction to Econometrics II
Prerequisites: ECON 5213 or equivalent; consent of instructor.
Description: Introductory course in econometric regression analysis for first year graduate students in economics, business and agricultural economics. Topics include microeconometric applications using panel data, qualitative choice and limited dependent variable models. Also, includes applications in macroeconomics and financial economics using regression analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5353 Austrian Economics: Theory & History
Description: Explore the Austrian school of economics, its origins, history and theory. Austrian economics views the market as a dynamic process with entrepreneurship as its driving force. In contrast to competing paradigms, the Austrian school consistently applies value subjectivity, acknowledges the highly heterogeneous nature of productive capital and relies primarily on a method that is specific for the social sciences. Same course as EEE 5103. May not be used for degree credit with EEE 4103 or ECON 4353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5603 Global Economics
Description: This course presents an introduction to economic issues from a global perspective for the non-specialist. It emphasizes the problems and challenges the process of globalization poses to national economies. The first part of the course presents the main theories of international trade and their relevance to explaining current global trade patterns. The second part of the course examines the foreign exchange market and the process of exchange rate determination. It covers various international financial issues such as global current account imbalances, the role of the dollar in international financial markets and international currency crises. Same course as GS 5213.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 5733 Energy Economics: Traditional and Renewable Energy Markets
Prerequisites: ECON 2103 or ECON 2003 and either MATH 2103 or MATH 2144.
Description: This course examines theory, empirical perspectives, and the political economy of energy supply and demand. It discusses aspects of local, national, and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy. In the course, we will examine public policies affecting energy markets including taxes, price regulation, energy efficiency, and control of emissions. Same course as ECON 4113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6000 Research and Thesis
Prerequisites: Approval of advisory committee.
Description: Workshop for the exploration and development of research topics. Research leading to the PhD dissertation. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6010 Seminar in Economic Policy
Description: Intensive analysis of selected problems in economic policy. Individual research, seminar reports and group discussion of reports. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Economics

ECON 6013 Microeconomic Theory I
Prerequisites: ECON 5223 or consent of instructor.
Description: Contemporary price and allocation theory with emphasis on comparative statics. Course previously offered as ECON 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6023 Microeconomic Theory II
Prerequisites: ECON 6013.
Description: Contemporary price and allocation theory with emphasis on general equilibrium analysis. Welfare economics. Course previously offered as ECON 6133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6033 Macroeconomic Theory I
Prerequisites: ECON 5033 or consent of instructor.
Description: National income, employment and the price level from the point of view of comparative statics. Course previously offered as ECON 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6043 Macroeconomic Theory II
Prerequisites: ECON 6033.
Description: National income, employment and the price level from the point of view of dynamics. Growth models. Previously offered as ECON 6143.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6113 Seminar in Economic Theory
Description: Microeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6123 Seminar in Economic Theory
Description: Macroeconomics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6213 Econometrics I
Prerequisites: ECON 5213 or consent of instructor.
Description: Theory and application of econometric theory to regression analysis. Topics include OLS, GLS, nonlinear least squares, and maximum likelihood estimation. Course previously offered as ECON 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6233 Time Series Econometrics
Prerequisites: ECON 5243 or equivalent.
Description: Advanced topics and fundamental elements in economic as well as financial time series models. Recently developed techniques with stationary and nonstationary time series, including Box-Jenkins and forecast methods, unit root, cointegration, error correction model, and VAR.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6243 Econometrics II
Prerequisites: ECON 6213.
Description: Advanced econometric theory and microeconometric applications. Topics include instrumental variables estimation, generalized method-of-moments estimation, limited dependent variable models, regression analysis using cross- section survey and panel data, and program evaluation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6323 Mathematical Economics I
Prerequisites: ECON 3113 and MATH 2163 or equivalent.
Description: Mathematical concepts of single variable and multivariate calculus, topological properties of Euclidean space, convergence, linear algebra, optimization theory and the Kuhn-Tucker Theorem with applications from economic theory. Previously offered as ECON 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6613 International Finance
Prerequisites: Permission of instructor.
Description: Open economy macro-economics and the role of devaluation, fiscal and monetary policy in the open economy, monetary approach to the balance of payments, portfolio balance and asset market approaches to the determination of exchange rates. Course previously offered as ECON 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6623 Economic Development I
Prerequisites: Permission of instructor.
Description: Characteristics and problems of less-developed countries. Criteria of growth and development with emphasis on strategies for development. The role of capital, labor, technological progress and entrepreneurship. Growth models. Course previously offered as ECON 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6633 International Trade
Prerequisites: Permission of instructor.
Description: International trade and commercial policy. Comparative advantage, general equilibrium and modern trade theories; welfare implications of international resource allocation models; the theory of protection and international interdependence. Course previously offered as ECON 5633.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6643 Economic Development II
Prerequisites: Permission of instructor.
Description: Major problems of development policy. Inflation and mobilization of capital, investment criteria, agriculture, foreign trade, population and manpower, planning and programming methods. Course previously offered as ECON 5643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6903 Regional Economic Analysis and Policy
Description: Selected topics in location theory, regional economic growth and policies toward regional development in the U.S. Course previously offered as ECON 5903.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

ECON 6913 Urban Economics
Prerequisites: Permission of instructor.
Description: The urban area as an economic system. Problems of economic policy in an urban environment. Course previously offered as ECON 5913.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Economics

Undergraduate Programs

- Economics, BSBA (p. 2736)
- Economics: Business Economics and Quantitative Studies, BSBA (p. 2738)
- Economics: Pre-Law, BSBA (p. 2740)
- General Business, BSBA (p. 2743)
- General Business: Pre-Law, BSBA (p. 2745)

Graduate Programs

The department offers work leading to the Master of Science degree and the Doctor of Philosophy degree. The graduate program in economics prepares economists for academic careers as well as research and administrative positions in business and government agencies.

Graduate fields of specialization include regional and urban economics, international economics and economic development. In addition, graduate courses are offered in energy economics and econometrics.

The initial admission to a graduate program is determined by the graduate studies committee on the basis of the applicant's previous academic record; verbal, quantitative and analytical scores of the Graduate Record Examination and three letters of recommendation.

The Master of Science Degree [1]

Admission to the master's program in economics is granted to college graduates with superior academic records. Students must have an undergraduate economics degree, be well grounded in economic theory,

and have an excellent mathematical background. A total of 30-33 graduate credit hours are required to earn an MS in economics.

Each graduate student is guided in the preparation of a plan of study by the graduate advisor. At the master's level, there are two options. One provides the student with a well-rounded program that does not specialize in a particular area of economics. The second option is applied economics, which stresses communication skills, quantitative analysis and coursework from other disciplines related to a career objective. The candidate for the master's degree is required to show competence in basic economic theory and statistical methods, together with an understanding of the fundamental institutional operations of the United States economy.

A research report or thesis is required of all students who take only the MS degree. A foreign language is not required.

1

Our MS in Economics is not subject to AACSB accreditation because Economics programs are often taught in either business colleges or arts and sciences colleges.

The Doctor of Philosophy Degree [1]

Admission to the doctoral program in economics is granted to college graduates who have superior academic records. A total of 64 graduate credit hours are required to earn a PhD in economics.

The PhD program stresses balanced preparation in economic theory, mathematics and statistics, as well as competence in subject-area fields of specialization. The student is required to pass qualifying examinations in the theory core and in one field of specialization. (The theory core is not considered a field of specialization.) Competence must be demonstrated in a second field of specialization through coursework. The graduate advisor helps the student develop a plan of study to achieve these objectives. A foreign language is not required.

A dissertation based upon original research is required of the candidate for a PhD degree in economics. The final oral examination is the dissertation defense.

1

Our PhD in Economics is not subject to AACSB accreditation because many Economics programs reside and are administered in colleges of arts and sciences.

Minors

- Economics (ECBU), Minor (p. 2735)
- General Business (GNBU), Minor (p. 2742)

Certificates

- Computational Economics and Data Analysis, UCRT (p. 2734)

Faculty

J.B. Kim, PhD—Professor and Head
Regents Professor: Dan S. Rickman, PhD
Professors: Harounan Kazianga, PhD
Associate Professors: Mehtabul Azam, PhD; Bidisha Lahiri, PhD; Wenyi Shen, PhD; Xiaojin (Aaron) Sun, PhD
Assistant Professors: Rui Du, PhD; Minhae Kim, PhD; Qiyao Zhao, PhD
Professors of Practice: Michael D.S. Morris, PhD; Eric Gonzalez Sanchez, PhD; Qinghe Su, PhD
Other Faculty: Bill McLean, PhD; Hongbo Wang, PhD

Computational Economics and Data Analysis, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Minimum overall GPA of 2.50. Minimum grade of "C" for all courses taken to satisfy the certificate requirements.

Code	Title	Hours
Required Courses		
STAT 2013	Elementary Statistics (A)	3
or STAT 2023	Elementary Statistics for Business and Economics (A)	
or STAT 2053	Elementary Statistics for the Social Sciences (A)	
ECON 2003	Microeconomic Principles for Business	3
or ECON 2103	Introduction to Microeconomics (S)	
ECON 2203	Introduction to Macroeconomics	3
Any upper-division economic course		3
ECON 4213	Econometric Methods	3
ECON 4223	Business and Economic Forecasting	3
Total Hours		**18**

Additional Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Economics (ECBU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 15

Code	Title	Hours
Minor Requirements		
ECON 2103	Introduction to Microeconomics (S)	3
or AGEC 1113	Introduction to Agricultural Economics (S)	
or ECON 2003	Microeconomic Principles for Business	
ECON 2203	Introduction to Macroeconomics	3
Select 9 hours of upper-division economics		9
Total Hours		**15**

Other Requirements

- 9 hours must be upper-division.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Economics, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
or MATH 1813	Preparation for Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A GPA of 2.00 is required in these 66 hours (one average)		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Economics Major Requirements		
A GPA of 2.00 is required in these 36 hours		
20 of these 36 hours must be in residence at OSU		
MATH 2103	Business Calculus (Q) (or higher MATH with (A) designation)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 3613	International Economic Relations (GS)	3
ECON 4933	Applied Economics	3
Select 9 hours from other upper-division ECON courses		9
Select 3 hours of the following:		3
STAT 2013	Elementary Statistics (Q)	
STAT 2023	Elementary Statistics for Business and Economics (Q)	
STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Select 6 hours upper-division electives		6
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC		
Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours		
Hours Subtotal		**11**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
MATH 1483 or MATH 1513 or MATH 1813	Mathematical Functions and Their Uses (Q) or College Algebra (Q) or Preparation for Calculus (Q)	3
'G' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2103	Business Calculus (Q) (or higher MATH with (A) designation)	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
POLS 1113	American Government	3
ECON 2203	Introduction to Macroeconomics	3
'H' designated course		3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
MGMT 3013	Fundamentals of Management (S)	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
'H' designated course		3
'N' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
ECON 3113	Intermediate Microeconomics	3
'D' designated course		3
3 hours of elective		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 3613	International Economic Relations (GS)	3
ECON 3123	Intermediate Macroeconomics	3
3 hours of upper division ECON		3
'LN' designated course		4
	Hours	**16**
Senior		
Fall		
3 hours of upper division ECON		3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
ECON 4933	Applied Economics	3
3 hours of upper division ECON		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Economics: Business Economics and Quantitative Studies, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
or MATH 1813	Preparation for Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
GPA of 2.00 is required in these 66 hours (one average)		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Economics Major Requirements		
A GPA of 2.00 is required in these 36 hours of Economics Major Requirements		
20 of these 36 hours must be in residence at OSU		
MATH 2103	Business Calculus (Q) (or higher MATH with (A) designation)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 3613	International Economic Relations (GS)	3
ECON 4933	Applied Economics	3
Select 6 hours of the following:		6
ECON 3213	Game Theory and Experimental Economics	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
ECON 4233	Econometric Applications	
Select 6 hours from other upper-division ECON courses		6
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
STAT 3013	Intermediate Statistical Analysis	3
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC		
Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours		
Hours Subtotal		**11**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103	Survey of American History (or HIST 1483 or HIST 1493)	3
MATH 1483 or MATH 1513 or MATH 1813	Mathematical Functions and Their Uses (Q) or College Algebra (Q) or Preparation for Calculus (Q)	3
MSIS 2103	Business Data Science Technologies	3
'G' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2103	Business Calculus (Q)	3
ECON 2003	Microeconomic Principles for Business	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
EEE 2023	Introduction to Entrepreneurship	3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
POLS 1113	American Government	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
MGMT 3013	Fundamentals of Management (S)	3
STAT 3013	Intermediate Statistical Analysis	3
'N' designated course		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
ECON 3113	Intermediate Microeconomics	3
3 hours of upper division ECON		3
3 hours from 6 hour list in major		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 3123	Intermediate Macroeconomics	3
'LN' designated course		4
'H' designated course		3
'D' designated course		3
	Hours	**16**
Senior		
Fall		
ECON 3613	International Economic Relations (GS)	3
3 hours of upper division ECON		3
3 hours from 6 hour list in major		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
ECON 4933	Applied Economics	3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Economics: Pre-Law, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q)	3
or MATH 1513	College Algebra (Q)	
or MATH 1813	Preparation for Calculus (Q)	
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A GPA of 2.00 is required in these 66 hours (one average)		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Economics Major Requirements		
A GPA of 2.00 is required in these 36 hours of Economics Major Requirements		
20 of these 36 hours must be in residence at OSU		
MATH 2103	Business Calculus (Q) (or higher MATH with (A) designation)	3
ECON 2203	Introduction to Macroeconomics	3
ECON 3113	Intermediate Microeconomics	3
ECON 3123	Intermediate Macroeconomics	3
ECON 4933	Applied Economics	3
Select 9 hours from other upper-division ECON courses		9
PHIL 1313	Logic and Critical Thinking (Q)	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
Select 6 hours of the following:		6
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	
LSB 4403	Law and Entrepreneurship	
LSB 4413	Law of Business Organizations	
LSB 4423	Employment Law (D)	
LSB 4523	Law of Real Property	
LSB 4633	Legal Aspects of International Business Transactions (G)	
POLS 2023	The Individual And The Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SPCH 3733	Elements of Persuasion (S)	
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC		

Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours	
Hours Subtotal	**11**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or MATH 1513 or MATH 1813)	3
MSIS 2103	Business Data Science Technologies	3
'G' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 2103	Business Calculus (Q)	3
ECON 2003	Microeconomic Principles for Business	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
EEE 2023	Introduction to Entrepreneurship	3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
POLS 1113	American Government	3
ECON 2203	Introduction to Macroeconomics	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
PHIL 1313	Logic and Critical Thinking (Q)	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
'N' designated course		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
ECON 3113	Intermediate Microeconomics	3
BADM 3113	Practical Business and Interpersonal Skills	3
3 hours of electives		3
	Hours	**16**
Spring		
ECON 3123	Intermediate Macroeconomics	3
MGMT 3013	Fundamentals of Management (S)	3
3 hours of upper division ECON		3
'D' designated course		3
'LN' designated course		4
	Hours	**16**
Senior		
Fall		
3 hours of upper division ECON		3
3 hours of upper division ECON		3
3 hours from 6 hour list in major		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
ECON 4933	Applied Economics	3
3 hours from 6 hour list in major		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

General Business (GNBU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 21

For a minor requiring 21 hours, 15 of the 21 hours must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. Students with majors from the Spears School of Business may not minor in General Business.

Code	Title	Hours
Minor Requirements		
ACCT 2103	Financial Accounting	3
or ACCT 2003	Survey of Accounting	
ECON 2103	Introduction to Microeconomics (S)	3
or ECON 2003	Microeconomic Principles for Business	
FIN 3113	Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
Total Hours		**21**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

General Business, BSBA

Degree Programs

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritages & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 66 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
General Business Major Requirements		
A GPA of 2.00 is required in these 36 hours		
18 of these 36 hours must be in residence at OSU		
Select 36 upper-division hours from the following areas: ACCT, BADM, BCOM, ECON, EEE, FIN, HTM, LSB, MGMT, MKTG, MSIS		36
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC		
Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours		
Hours Subtotal		**11**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.
3. Students may not earn a General Business major in addition to another business major.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
3 hours of upper division business		3
'D' designated course		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
BADM 3113	Practical Business and Interpersonal Skills	3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of upper division business		3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
'LN' designated course		4
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of upper division business		3
	Hours	**16**
Senior		
Fall		
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

General Business: Pre-Law, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritages & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 69 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
General Business Major Requirements		
A GPA of 2.00 is required in these 39 hours		
21 of these 39 hours must be in residence at OSU		
Select 30 hours upper-division SSB electives from the following areas: ACCT, BADM, BCOM, ECON, EEE, FIN, HTM, MGMT, MKTG, MSIS		30
Select 9 hours of the following:		9
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	
LSB 4403	Law and Entrepreneurship	
LSB 4413	Law of Business Organizations	
LSB 4423	Employment Law (D)	
LSB 4523	Law of Real Property	
LSB 4633	Legal Aspects of International Business Transactions (G)	
HTM 4103	Legal and Ethical Issues in Hospitality, Tourism, & Gaming	
POLS 3983	Courts and Judicial Process (S)	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
Hours Subtotal		**69**
Electives		
Select 8 hours [3]		8
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**8**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3 If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.
3. Students may not earn a General Business major in addition to another business major.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
3 hours of upper division business		3
'D' designated course		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
BADM 3113	Practical Business and Interpersonal Skills	3
3 hours from 9 hour list in major		3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of upper division business		3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
'LN' designated course		4
3 hours from 9 hour list in major		3
3 hours of upper division business		3
3 hours of upper division business		3
	Hours	**16**
Senior		
Fall		
3 hours from 9 hour list in major		3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Finance

Financial executives are of central importance to the overall planning, control and success of an organization. There are financial implications in virtually all organizational decisions, whether the organization is a business firm, a non-profit organization, or a government. With each new innovation in the field of finance the importance of finance for all organizations has grown. Every decision-maker must have sufficient knowledge of finance to determine the financial implications of their decisions.

Finance has evolved from a descriptive discipline in the early 1900s to the analytical discipline we find today. Finance theoreticians use fundamental economic theory to develop valuation models and the tools of financial analysis and risk management that are used by finance practitioners to make financial decisions. Finance consists of three interrelated core areas: financial markets and institutions, investments and portfolio theory, and managerial (business) finance. Subsets of these core areas include, but are not limited to, personal finance, real estate finance, international finance, the management of financial institutions, insurance, energy finance, entrepreneurial finance, derivative securities, and risk management.

The primary objective of the undergraduate finance curriculum is to produce graduates who have a broad understanding of the financial aspects of their decisions and actions and who are capable of utilizing the fundamental tools of financial analysis. Toward these ends, the development of elementary mathematical and statistical skills and the study of economics, accounting and business administration are needed to accomplish the objective. The major in finance prepares students for positions that require special understanding of financial analysis, financial management, and financial systems in a wide variety of organizations.

A career in financial management can begin in one of several positions that may lead to a major executive position, including chief executive officer, chief financial officer, and chief risk officer. Initial positions in the managerial finance area include analyst, capital budgeting analyst, cash manager, credit analyst, financial analyst (who works closely with accountants), real estate officer, and risk manager. Alternatively, finance majors may choose to enter the financial services industries. Finance majors could enter the workforce in the banking industry as a loan officer or as a member of the trust department; in the securities industry as a securities analyst, as an investment banker, as a stockbroker, wealth manager, or account executive, or as a financial planner or personal financial advisor; and in the insurance industry as an agent, financial representative, sales agent, or underwriter.

Courses

FIN 1101 Money 101
Description: Money 101 provides students a fun opportunity to learn basic money management skills. Students will learn about various ways to save for and pay for college and consumer loans. Students will also learn about credit scores, short and long-term savings options, smart spending, and risk management.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2121 Managing Revenues from Name, Image, and Likeness
Description: Managing Revenues from Name, Image and Likeness provides students an opportunity to learn basic financial knowledge and skills necessary to make financial decisions during college and over their lifetime. Students will also learn the technical aspects of money including debt, taxes, investing, credit, savings, smart spending, and risk management. The course will focus on basic money management with a special emphasis on navigating the potential financial ramifications of the Name, Image and Likeness (NIL) rights. No prior knowledge is required and no textbook is required to be purchased.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2123 Personal Finance
Description: A first course in the management of the individual's financial affairs. Budgeting, use of credit, mortgage financing, investment and estate planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2550 Selected Topics in Finance
Description: Basic topics in finance. Topics are updated each semester. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 2713 Real Estate Principles and Practices
Description: This class is a survey course designed to expose the student to the basics of buying, selling, management and investment in residential and commercial real estate. Excel training is crucial and will be provided. Topics include real estate marketing procedures, agency and brokerage management, property inspection and appraisal, leased and rental properties, and commercial real estate investment and property management. An overview of the 2007-2009 global financial crisis will illustrate the important role of the real estate, banking and investment industries in creating the crisis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3113 Principles of Finance
Prerequisites: ACCT 2003 (or ACCT 2103 and ACCT 2203)
Description: Operational and strategic financial problems including allocation of funds, asset management, financial information systems, financial structure, policy determination and analysis of the financial environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3613 General Insurance
Prerequisites: FIN 3113.
Description: Introduction to the theory and general principles of insurance. A broad analysis of the elements and operation of property, casualty, health and life insurance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 3713 Real Estate Investment and Finance
Prerequisites: FIN 3113.
Description: An introductory course in real estate investment and finance. Financing real estate, financial leverage and financial planning, the institutional structure of mortgage lending, managing risks, investment strategies and decisions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4003 Introduction to Energy Business
Prerequisites: Sophomore standing.
Description: This class covers topics related to energy business broadly defined, including financial decision making. The main focus will be on the oil and gas industry but will also cover renewable energy issues, historical events, geopolitics, and supply/demand in energy. May not be used for degree credit with FIN 5003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4023 Retirement and Employee Benefit Planning
Prerequisites: FIN 3113
Description: A comprehensive study of the fundamentals and techniques of retirement and employment benefits planning, focusing on regulatory frameworks, retirement plan types, and distribution strategies. Students will learn to evaluate, select, and administer appropriate retirement plans, understanding the tax implications and benefits of each option.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4033 Estate Planning
Prerequisites: FIN 3113
Description: A comprehensive study of the fundamentals and techniques of estate planning. Topics include: property transfers, taxation as applied to estate planning, goals, probate, charitable transfers, estate planning for closely held business interests, will and trust, bypass, gift, liquidity, and postmortem planning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4053 Study Abroad: Contemporary Global Impacts in Finance
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4063 Applied Financial Studies
Prerequisites: Consent of the instructor.
Description: Structured internship or field project with supporting academic study. Previously offered as FIN 4463.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4103 Securities Industry Essentials
Prerequisites: FIN 3113
Description: The Financial Industry Regulatory Authority (FINRA) has introduced the Securities Industry Essentials® (SIE®) Exam, which is aimed at individuals aspiring to become professionals in the securities industry. The FIN SIE Course is designed to equip students with the necessary knowledge and skills pertaining to the subjects covered in the FINRA SIE exam. May not be used for degree credit with FIN 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4113 Financial Markets and Institutions
Prerequisites: FIN 3113, and ECON 3313 or concurrent enrollment in ECON 3313.
Description: Money and capital markets, flow-of-funds, commercial banks and other financial intermediaries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4213 International Financial Management
Prerequisites: FIN 3113.
Description: Financial management topics unique to business firms operating in an international environment. Topics include global economic and business environments, international monetary system, foreign exchange markets, foreign exchange risk and management, foreign direct investment, and trade finance. Recent and current international financial events.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4223 Investments
Prerequisites: FIN 3113 and STAT 2013, STAT 2023, or STAT 2053.
Description: Various approaches to selecting and timing investment opportunities, e.g., common stocks, bonds, commodities and options. Modern concepts of portfolio theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4233 Financial Planning Capstone Course
Prerequisites: FIN 3113; Also, the student must have already taken at least two of the following courses with a grade of C or better: FIN 3613, FIN 4023, FIN 4033, FIN 4223, and/or ACCT 4703.
Description: Capstone course in the Financial Planning (FP) area. FP topics and process covered to give students the ability to deliver professional and competent financial services to the public. Students study mini-cases and write a comprehensive financial plan as key requirements of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4333 Financial Modeling
Prerequisites: FIN 3113 and STAT 2013, STAT 2023, or STAT 2053.
Description: Theories and practice applicable to the financial administration of a firm. A variety of teaching methods used in conjunction with readings and cases to illustrate financial problems and techniques of solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4343 Valuation and Financial Modeling
Prerequisites: FIN 3113, FIN 4333 with a "B" or better.
Description: This course focuses on valuing entire business enterprises. The major course topic is estimating corporate value via the comparable companies approach, the discounted cash flow (DCF) approach, and the precedent transactions approach. May not be used for degree credit with FIN 5343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4363 Energy Finance
Prerequisites: FIN 3113.
Description: Introduction to basic terminology, industry structure, and supply and demand outlook in the oil, gas and power industries. A broad analysis of applications in the energy industry including financial statement analysis, valuation, risk analysis in capital budgeting, risk management, alternative energy topics and energy specific case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4443 Banking Strategies and Policies
Prerequisites: FIN 3113, and ECON 3313 or concurrent enrollment in ECON 3313.
Description: Theories and practices of bank asset management; banking markets and competition.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4453 Bank Decision Simulation and Analysis
Prerequisites: FIN 3113 and FIN 4443.
Description: Student teams assume the roles of senior bank officers, making decisions regarding bank assets, funding, product pricing, financial leverage, profit enhancement, risk management, and staffing. Decisions implemented through computer simulation, incorporating the decisions into an environment where the decisions of competing management teams and the local economy determine bank profitability and shareholder value. Evaluation of students' abilities to create shareholder value and effectively communicate planning and analysis through written and spoken reports.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4550 Selected Topics in Finance
Prerequisites: FIN 3113 or consent of instructor.
Description: Advanced topics in finance. Topics are updated each semester. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4633 Essentials of Quantitative Finance
Prerequisites: FIN 3113
Description: This course covers applying quantitative financial methods using the Python programming language. Finance topics are covered as a means of learning Python. Students will learn how to use programming and large datasets to analyze investments and securities markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4653 Bond Markets
Prerequisites: FIN 3113 and FIN 4113.
Description: Provides a broad introduction to treasury, corporate, municipal, mortgage backed, and asset backed bond markets. The analytical techniques for valuing bonds, quantifying their exposure to changes in interest rate and credit risk exposures and investment decision-making are explored. Concepts are applied through case studies and projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4713 Real Estate Valuation & Appraisal
Prerequisites: FIN 3713
Description: This course introduces students to the real estate valuation process for both residential and income-producing properties. The course begins with a review of real property interests, the economic foundations of value, and the market in which real property interests are traded. Real estate valuation techniques and tools are covered. The course highlights the function of valuation within the broader real estate market and explores strengths and weaknesses of traditional approaches.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4763 Financial Futures and Options Markets
Prerequisites: FIN 4223.
Description: Foundation in financial futures and options markets. A balance of institutional detail necessary to understand the structure of these markets and the theoretical developments necessary to apply the contracts to various uses. The use of financial futures and options to manage price risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4813 Portfolio Management
Prerequisites: FIN 3113 and FIN 4223 with a grade of "C" or better and consent of instructor.
Description: Overview of portfolio management from the point of view of a trust officer, mutual fund manager, pension fund manager, or other manager of securities. Emphasizes the need of financial managers for an understanding of problems, trends, and theory of portfolio management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4833 Student Managed Investment Fund
Prerequisites: FIN 4223 with a grade of “B” or better AND consent of instructor.
Description: Security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of current portfolio holdings and prospective holdings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4843 Risk Management
Prerequisites: FIN 3113.
Description: Introduction to relevant analytical tools necessary for the effective management of risk. Previously offered as FIN 4613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 4853 Student Managed Investment Fund II
Prerequisites: FIN 4833 with a grade of "B" or better and consent of instructor.
Description: Advanced security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of publicly traded companies. Increased emphasis on portfolio management and asset allocation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Finance

FIN 5000 Masters Research and Thesis
Prerequisites: Good standing in Master of Science in quantitative financial economics program and consent of program coordinator.
Description: Research and thesis for master's students. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5003 Introduction to Energy Business
Description: This class covers topics related to energy business broadly defined, including financial decision making. The main focus will be on the oil and gas industry but will also cover renewable energy issues, historical events, geopolitics, and supply/demand in energy. May not be used for degree credit with FIN 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5010 Finance Projects and Independent Studies
Prerequisites: Good standing in graduate program and consent of project adviser and consent of department head.
Description: Graduate projects and independent study in finance. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5013 Business Finance
Prerequisites: Admission to a SSB graduate program and ACCT 5183 or equivalent, or consent of MBA director or instructor.
Description: Introduction to key business finance polices and to tools, techniques, and institutional background needed to make effective financial decisions. Learning goals include: (1) general understanding of financial markets and the corporate organization, (2) understanding the concept of time value of money and its applications, (3) learning about fixed income and equity securities and their valuation, (4) understanding capital budgeting principles and their evaluation, (5) estimation of cost of capital and its role in financial decisions, and (6) introduction to capital structure policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5053 Theory and Practice of Financial Management
Prerequisites: Admission to a SSB graduate program and FIN 5013 or equivalent and ACCT 5183 or equivalent or consent of the MBA director or instructor.
Description: Course is intended for students aspiring to careers in financial management in corporations and/or financial institutions. Extends FIN 5013 to cover real-world applications in financial statement analysis, corporate financial decisions including advanced capital project evaluation, corporate risk management, mergers & acquisitions, and corporate restructuring. Cases, problems, and readings to illustrate various financial problems and techniques of solution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5103 Securities Industry Essentials
Description: The Financial Industry Regulatory Authority (FINRA) has introduced the Securities Industry Essentials® (SIE®) Exam, which is aimed at individuals aspiring to become professionals in the securities industry. FINRA SIE Exam is now a requirement for many entry level securities industry jobs. The FIN 5103 SIE Course is designed to equip students with the necessary knowledge and skills pertaining to the subjects covered in the FINRA SIE exam. May not be used for degree credit with FIN 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5153 Corporate Financial Strategy
Prerequisites: Admission to a SSB graduate program and FIN 5013 or equivalent and ACCT 5183 or equivalent or the consent of the MBA director or instructor.
Description: Strategic financial decisions and their implementation, including capital structure policy, capital budgeting, risk assessment and management, corporate restructuring, management performance assessment, cost of capital, financial resource planning, dividend policy, and capital raising. Familiarity with basic financial tools and techniques including time value of money, asset pricing and security valuation, and financial statement analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5213 International Business Finance
Prerequisites: FIN 5013.
Description: Theories and financial management practices unique to business firms which operate in, or are influenced by, an increasingly global economy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5223 Investment Theory and Strategy
Prerequisites: Admission to a SSB graduate program, 5013 or the consent of MBA director or the instructor.
Description: Selected investment topics and advanced portfolio management techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5243 Innovations in Quantitative Finance
Prerequisites: FIN 5013.
Description: Concepts in this course will cover technical skills important for a quantitative analyst with emphasis on programming and application development. Topics include trading algorithms, energy demand modeling, risk measures, advanced portfolio optimization under constraints, among other topics. Special attention will be given to concepts and applications that investors, money managers, wealth managers, financial managers, and risk managers utilize in their decision making and risk management processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5333 Corporate Governance
Prerequisites: FIN 5013.
Description: The theoretical and applied analysis of the governance structure of a corporation. The interconnections of the board of directors, CEO, management and shareholders. Case problems and readings address the advantages and disadvantages of various corporate governance practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5343 Valuation and Financial Modeling
Prerequisites: FIN 5013.
Description: This course focuses on valuing entire business enterprises. The major course topic is estimating corporate value via the comparable companies approach, the discounted cash flow (DCF) approach, and the precedent transactions approach, and the precedent transactions approach. May not be used for degree credit with FIN 4343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5363 Energy Finance
Prerequisites: FIN 5013 or equivalent.
Description: Introduction to basic terminology, industry structure, and supply and demand outlook in the oil, gas, and power industries. A broad analysis of applications in the energy industry including financial statement analysis, valuation, risk analysis in capital budgeting, risk management, alternative energy topics and energy specific case studies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5400 Practicum In Quantitative Finance
Prerequisites: Consent of Director of MS in Quantitative Finance and satisfactory completion of six hours of FIN 5000 level courses.
Description: Professionally supervised experience in Quantitative Finance projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the Instructor and must reflect graduate level analysis. May consist of full or part-time Quantitative Finance experience, on campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the Instructor. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

FIN 5550 Special Topics in Finance
Prerequisites: Consent of instructor.
Description: Theoretical and applied aspects of specialized financial areas. Evaluation of models, current trends and problems. Offered for variable credit, 1-6 credit hours, maximum of 12 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5633 Computational Finance
Description: This course covers applying quantitative financial methods using the computer programming language, Python. Finance topics are covered as a means of learning Python. Students will learn advanced Python programming topics including Monte Carlo simulation, partical differential equations, option valuation, data analysis, and other financial models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5653 Bond Markets
Prerequisites: Consent of the instructor.
Description: This course provides a mathematically rigorous introduction to fixed income markets. Specific attention is given to 1-factor and 2-factor models, their theoretic foundations and how to calibrate them to market data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5763 Derivative Securities and the Management of Financial Price Risk
Prerequisites: FIN 5013 or consent of instructor.
Description: Differing amounts of financial price risk for individuals and corporations in volatile financial environment. The development of arbitrage-based models for the pricing of derivative securities, and the use of a full range of derivative securities to manage exposure to financial price risk.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5773 Financial Engineering
Prerequisites: MATH 4513 and FIN 5763 or consent of instructor.
Description: Techniques for the design, development and implementation of innovative financial instruments and processes to the formulation of creative solutions of problems in finance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5813 Portfolio Management
Prerequisites: FIN 5223
Description: Overview of portfolio management from the point of view of a trust officer, mutual fund manager, pension fund manager, or other manager of securities. Emphasizes the need of financial managers for an understanding of problems, trends, and theory of portfolio management. May not be used for degree credit with FIN 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5833 Student Managed Investment Fund
Prerequisites: Graduate standing AND consent of instructor.
Description: Security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of current portfolio holdings and prospective holdings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 5853 Student Managed Investment Fund II
Prerequisites: FIN 5833 with a grade of "B" or better "and" consent of instructor.
Description: Advanced security valuation and portfolio management practicum course involving investing decisions using real money. Content includes applying financial theories and models to real world practice. Includes research-based fundamental analysis and valuations of publicly traded companies. Increased emphasis on portfolio management and asset allocation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 5883 Quantitative Financial Applications
Prerequisites: FIN 5223 and consent of the head of the department.
Description: Application of financial solution techniques through directed case work in appropriate business and public sector settings. Simulation, small group instruction and field-based experiences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

FIN 6053 Financial Theory and Corporate Policy
Prerequisites: Consent of the instructor.
Description: Theoretical and empirical underpinnings of modern corporate finance.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Finance

FIN 6660 Seminar in Finance
Prerequisites: Consent of instructor.
Description: Advanced research with emphasis on theoretical problems and solutions. Selected topics covered. Offered for variable credit, 3-6 credit hours, maximum of 12 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Finance

Undergraduate Programs

- Finance: Commercial Bank Management Option, BSBA (p. 2757)
- Finance: Financial Analyst Option, BSBA (p. 2759)
- Finance: Financial Planning, BSBA (p. 2761)
- Finance: General Option, BSBA (p. 2763)
- Finance: Pre-Law, BSBA (p. 2765)

Graduate Programs

Concentrations in finance are offered through the Master of Business Administration, Master of Science in Quantitative Financial Economics and Doctor of Philosophy degrees.

The Master of Science in Quantitative Finance (MSQF) Degree

(See "Business Administration (p. 2914).")

The Master of Science in Quantitative Finance Degree. The discipline of quantitative finance continues to evolve, spurred by business and financial institution demand for quantitative skills where more emphasis is on quantitative methods from regulatory authorities. Oklahoma State University offers a Master of Science Degree in Quantitative Finance (MSQF) to meet this demand. The objective of the MSQF is to produce graduates with quantitative skill sets necessary to support advanced financial and economic decision-making that includes rigorous financial-modeling, mathematical, and statistical skills.

The MSQF is a Spears School of Business degree program that draws on the combined expertise of five OSU departments—Finance, Economics, Mathematics, Statistics and Agricultural Economics. The program is designed to produce graduates with the skills necessary to participate in critical decision making processes at all levels of the organization. The program focuses on the analytical methods necessary for effective participation in the fields of financial management, investment management, risk management, and financial engineering. The program provides students the opportunity to apply their knowledge and skills to projects that utilize quantitative financial tools and techniques. Quantitative finance embraces the role of advanced mathematics in applied finance. There is extensive use of mathematics, probability theory and financial economics, and the OSU program trains students not to

become employees with just quantitative skills but financial managers who are equipped with a thorough understanding of quantitative finance.

The MSQF is a 33 credit-hour program. The core 27 hours consists of classes required of all students in the program.

The admission requirements include an earned undergraduate degree from a college or university of recognized standards. In addition to the Oklahoma State University Graduate College's standard requirements, the program's Curriculum Committee will consider the applicant's letters of recommendation, GMAT or GRE score, previous academic performance and financial/statistical modeling experience.

Additional information about the program is available on the Internet at https://go.okstate.edu/graduate-academics/programs/masters/quantitative-financial-economics-ms.html.

The Doctor of Philosophy Degree

A PhD in business administration with concentration in finance prepares the student for careers in academia, business, or government.

The program is designed to meet the needs and objectives of individual students but all students will seek an in-depth understanding of the theoretical foundations of financial economics, and develop research competency and teaching skills. The small class size provides a supportive environment conducive to the exchange of ideas and the development of new insights by both faculty and students.

Students will select finance as their major area of study. Two areas of concentration are also to be selected. As support for the major field of study, each student is required to attain graduate-level competence in economic theory and quantitative methods.

Prerequisites for admission to the program are appropriate basic courses in accounting, calculus, economics, finance, and statistics.

Competence in planning and executing research is demonstrated by a dissertation. In addition, each candidate must pass comprehensive qualifying examinations and a final oral examination on the dissertation itself.

Outstanding students with degrees in any field of study may apply. Applications for admission are evaluated on the basis of the following:

1. undergraduate and graduate grade-point averages,
2. score on the Graduate Management Admissions Test (GMAT) or Graduation Record Examination (GRE),
3. a two- or three-page statement describing goals and academic interests,
4. at least three letters of recommendation,
5. evidence of research potential, and
6. a personal interview when feasible.

It is the applicant's responsibility to see that all materials related to these criteria are received by the Department of Finance. Additional information about the program is available on the internet at https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-finance-phd.html.

Minors

- Energy Finance (EFIN), Minor (p. 2755)
- Finance (FIN), Minor (p. 2756)

Faculty

David A. Carter, PhD—Professor and Head
Regents Professor: Betty Simkins, PhD
Associate Professors: William Grieser, PhD; Louis Piccotti, PhD; Brian Roseman, PhD; Shu Yan, PhD; Qin "Emma" Wang, PhD; Jun Zhang, PhD
Assistant Professors: Aaron Burt, PhD; Katherine Wood, PhD
Professors of Professional Practice: Amit Bansal, MBA and MSEE; Joe Byers, PhD; Eric Sisneros, PhD; Allissa Lee, PhD
Other Faculty: Josh Herlan; Jared Pawelka; Beth Peterson; Ken Petrashek; Ramesh Rao, PhD; Nancy Titus-Piersma; Jacob Walters

Energy Finance (EFIN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 18

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
ECON 2003	Microeconomic Principles for Business	3
or ECON 2103	Introduction to Microeconomics (S)	
FIN 3113	Finance	3
FIN 4003	Introduction to Energy Business	3
FIN 4363	Energy Finance	3
Select 3 hours from one of the following:		3
One upper-division finance		
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
or GEOL 4990	Special Problems in Earth Science	
Total Hours		**18**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Finance (FIN), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 18

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
FIN 3113	Finance	3
Select 9 hours of upper-division finance [1]		9
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
ECON 2003	Microeconomic Principles for Business	3
or ECON 2103	Introduction to Microeconomics (S)	
Total Hours		**18**

1

Excluding FIN 4063 Applied Financial Studies.

Other Requirements

- 12 of the 18 hours must be taken in residence at OSU and 6 of the 9 hours of finance electives must be taken in residence at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Finance: Commercial Bank Management Option, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 75 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Finance Major Requirements		
A minimum GPA of 2.00 is required in these 45 hours of Finance Major Requirements		
23 of these 45 hours must be in residence at OSU		
Core Courses:		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 4901	Advanced Accounting Tools and Technologies	1
ECON 2203	Introduction to Macroeconomics	3
ECON 3313	Money and Banking	3
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 2013	Elementary Statistics (Q)	
Option Requirements		
FIN 4063	Applied Financial Studies	3
FIN 4113	Financial Markets and Institutions	3
or FIN 4103	Securities Industry Essentials	
FIN 4443	Banking Strategies and Policies	3
FIN 4763	Financial Futures and Options Markets	3
Select 9 hours from Upper Division Finance courses		9
Hours Subtotal		**75**
Electives		
Select 2 hours		2
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. 12 credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**2**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated 'Q' except for MATH 1493)	3
MSIS 2103	Business Data Science Technologies	3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
MGMT 3013	Fundamentals of Management (S)	3
FIN 3113	Principles of Finance	3
MSIS 3223	Principles of Data Analytics	3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
BADM 3111	Professional Development for Business Success	1
ECON 3313	Money and Banking	3
LSB 3213	Legal and Regulatory Environment of Business	3
FIN 4333	Financial Modeling	3
	Hours	**14**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
FIN 4223	Investments	3
FIN 4113 or FIN 4103	Financial Markets and Institutions or Securities Industry Essentials	3
FIN 4443	Banking Strategies and Policies	3
'D' designated course		3
	Hours	**15**
Summer		
FIN 4063	Applied Financial Studies	3
	Hours	**3**
Senior		
Fall		
FIN 4763	Financial Futures and Options Markets	3
3 hours of upper division FIN		3
'LN' designated course		4
'H' designated course		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
ACCT 4901	Advanced Accounting Tools and Technologies	1
3 hours of upper division FIN		3
3 hours of upper division FIN		3
2 hours of electives		2
	Hours	**12**
	Total Hours	**120**

Finance: Financial Analyst Option, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 72 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Finance Major Requirements		
A minimum GPA of 2.00 is required in these 42 hours of Finance Major Requirements		
23 of these 42 hours must be in residence at OSU		
Core Courses:		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 4901	Advanced Accounting Tools and Technologies	1
ECON 2203	Introduction to Macroeconomics	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 2013	Elementary Statistics (Q)	
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
FIN 4113	Financial Markets and Institutions	3
or FIN 4103	Securities Industry Essentials	
FIN 4343	Valuation and Financial Modeling	3
FIN 4813	Portfolio Management	3
FIN 4763	Financial Futures and Options Markets	3
Option Requirements		
Select 9 hours of Upper Division Finance courses		9
Hours Subtotal		**72**
Electives		
Select 5 hours [3]		5
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. 12 credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**5**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated 'Q' except for MATH 1493)	3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
MGMT 3013	Fundamentals of Management (S)	3
FIN 3113	Principles of Finance	3
MSIS 3223	Principles of Data Analytics	3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
LSB 3213	Legal and Regulatory Environment of Business	3
FIN 4113 or FIN 4103	Financial Markets and Institutions or Securities Industry Essentials	3
FIN 4333	Financial Modeling	3
'H' designated course		3
	Hours	**16**
Spring		
BADM 3111	Professional Development for Business Success	1
BADM 3113	Practical Business and Interpersonal Skills	3
FIN 4223	Investments	3
FIN 4343	Valuation and Financial Modeling	3
3 hours of upper division FIN		3
'D' designated course		3
	Hours	**16**
Senior		
Fall		
FIN 4763	Financial Futures and Options Markets	3
FIN 4813	Portfolio Management	3
'LN' designated course		4
3 hours of electives		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
ACCT 4901	Advanced Accounting Tools and Technologies	1
3 hours of upper division FIN		3
3 hours of upper division FIN		3
2 hours of electives		2
	Hours	**12**
	Total Hours	**120**

Finance: Financial Planning, BSBA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 73 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Finance Major Requirements		
A minimum GPA of 2.00 is required in these 43 hours of Finance Major Requirements		
23 of these 43 hours must be in residence at OSU		
Core Courses:		
FIN 2123	Personal Finance	3
ACCT 3004	Foundational Accounting and Data Skills	4
ECON 2203	Introduction to Macroeconomics	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 2013	Elementary Statistics (Q)	
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
FIN 4113	Financial Markets and Institutions	3
or FIN 4103	Securities Industry Essentials	
CFP Option Requirements		
ACCT 4073	Tax Planning for Financial Professionals	3
FIN 3613	General Insurance	3
FIN 4053	Study Abroad: Contemporary Global Impacts in Finance	3
FIN 4023	Retirement and Employee Benefit Planning	3
FIN 4233	Financial Planning Capstone Course	3
Select 6 hours of Upper Division Finance courses		6
Hours Subtotal		**73**
Electives		
Select 4 hours [3]		4
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. 12 credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**4**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Finance: General Option, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**

Major Requirements		
A minimum GPA of 2.00 is required in these 72 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Finance Major Requirements		
A minimum GPA of 2.00 is required in these 42 hours of Finance Major Requirements		
23 of these 42 hours must be in residence at OSU		
Core Courses:		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 4901	Advanced Accounting Tools and Technologies	1
ECON 2203	Introduction to Macroeconomics	3
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 2013	Elementary Statistics (Q)	
FIN 4213	International Financial Management	3
or FIN 4813	Portfolio Management	
FIN 4113	Financial Markets and Institutions	3
or FIN 4103	Securities Industry Essentials	
Option Requirements		
Select 15 hours from Upper-Division Finance courses.		15
Hours Subtotal		**72**
Electives		
Select 5 hours [3]		5
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. 12 credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**5**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
'G' designated course		3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated 'Q' except for MATH 1493)	3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
MGMT 3013	Fundamentals of Management (S)	3
FIN 3113	Principles of Finance	3
MSIS 3223	Principles of Data Analytics	3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
FIN 4333	Financial Modeling	3
3 hours of upper division FIN		3
'H' designated course		3
	Hours	**17**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
FIN 4223	Investments	3
3 hours of upper division FIN		3
FIN 4113 or FIN 4103	Financial Markets and Institutions or Securities Industry Essentials	3
'D' designated course		3
	Hours	**15**
Senior		
Fall		
FIN 4213 or FIN 4813	International Financial Management or Portfolio Management	3
'LN' designated course		4
3 hours of upper division FIN		3
3 hours of electives		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
ACCT 4901	Advanced Accounting Tools and Technologies	1
3 hours of upper division FIN		3
3 hours of upper division FIN		3
2 hours of electives		2
	Hours	**12**
	Total Hours	**120**

Finance: Pre-Law, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH with "A" designation (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**

Major Requirements		
A minimum GPA of 2.00 is required in these 77 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Finance Major Requirements		
A minimum GPA of 2.00 is required in these 47 hours of Finance Major Requirements		
16 of these 47 hours must be in residence at OSU		
Core Courses:		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ECON 2203	Introduction to Macroeconomics	3
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
or STAT 2013	Elementary Statistics (Q)	
FIN 4113	Financial Markets and Institutions	3
or FIN 4103	Securities Industry Essentials	
FIN 4213	International Financial Management	3
or FIN 4813	Portfolio Management	
Option Requirements		
Choose 9 hours from the following:		9
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	
LSB 4403	Law and Entrepreneurship	
LSB 4413	Law of Business Organizations	
LSB 4423	Employment Law (D)	
LSB 4523	Law of Real Property	
HTM 4103	Legal and Ethical Issues in Hospitality, Tourism, & Gaming	
POLS 2023	The Individual And The Law	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
POLS 4973	U.S. Constitution: Separation of Powers	
SPCH 3733	Elements of Persuasion (S)	
Upper-Division Finance Electives		12
Hours Subtotal		**77**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH 1483	Mathematical Functions and Their Uses (Q) ((or higher MATH with 'Q' designation except for MATH 1493))	3
MSIS 2103	Business Data Science Technologies	3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
MGMT 3013	Fundamentals of Management (S)	3
FIN 3113	Principles of Finance	3
MSIS 3223	Principles of Data Analytics	3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
LSB 3213	Legal and Regulatory Environment of Business	3
FIN 4333	Financial Modeling	3
'D' designated course		3
'H' designated course		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
BADM 3111	Professional Development for Business Success	1
FIN 4223	Investments	3
3 hours of upper division FIN		3
FIN 4113 or FIN 4103	Financial Markets and Institutions or Securities Industry Essentials	3
3 hours from 9 hour list in major		3
	Hours	**16**
Senior		
Fall		
FIN 4213 or FIN 4813	International Financial Management or Portfolio Management	3
'LN' designated course		4
3 hours of upper division FIN		3
3 hours from 9 hour list in major		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division FIN		3
3 hours of upper division FIN		3
3 hours from 9 hour list in major		3
	Hours	**12**
	Total Hours	**120**

Hospitality and Tourism Management

Since 1937, the School of Hospitality and Tourism Management has been educating students that have become successful leaders, decision-makers, and entrepreneurs to lead at the forefront of this fast-growing and rapidly changing national and global industry. The mission of the School is to be a world leader in hospitality and tourism education through purposeful research, superior teaching and innovative experiential learning to enhance the lives of those we serve.

Our focus:

- High-quality academic foundation centered on relevant curriculum focused on the business of global hospitality and tourism with the integration of research and engagement
- Diverse experiential learning labs that are operated professionally and ethically using sound business principles
- Student organizations which actively partner with national and international hospitality professional associations
- Signature events that provide experiential learning for students and bring together individuals and communities while supporting the land grant university mission.

Career opportunities are available in multiple sectors in the U.S. and globally that include Hotels & Hospitality Services; Food & Beverage; Travel & Tourism; Events & Entertainment; Resorts, Theme Parks & Attractions; and Cruises, Clubs & Casino. Students have the opportunity to gain hands-on experience volunteering with student-led and other events such as: Wine Forum of Oklahoma, Craft Beer Forum of Oklahoma; Distinguished Chef Scholarship Benefit Series, and Hospitality Days Career Fair. A new educational facility opened fall 2016 which unites technology with state-of-the-art laboratories, classrooms, exhibit areas and faculty offices. Specific accommodations include quantity food preparation areas with commercial equipment, dining room management and table service laboratory, quick service restaurant, basic food preparation laboratory, demonstration classroom and the Hirst Center for Beverage Education. The Center promotes a curriculum at the forefront of beverage education featuring a variety of formats including alcoholic and non-alcoholic beverages.

To meet the needs of the industry and provide sound academic preparation at the undergraduate level, the curriculum emphasizes general education, business fundamentals, and hospitality and tourism education. The professional related courses include lodging management, sales and marketing, revenue management, service management, food and beverage production, purchasing and cost control, facility management and design, tourism business and development. In addition, advanced hospitality and tourism management are also included in the specialized areas of Event Management and Beverage Management. The BS degree with a major in hospitality and tourism management may be earned by completing a minimum of 120 semester hours and achieving a "C" grade in courses required in the major area and professional electives.

Successful completion of a management internship of 320 hours is required. This can be taken in any semester following the junior year. Internship placement in hotels, restaurants, event venues, and other hospitality and tourism-related establishments is arranged in the U.S. and globally in cooperation with industry executives and faculty. Study abroad programs and international internships are also available.

Please visit our College catalog for more information: https://business.okstate.edu/htm (https://business.okstate.edu/htm/).

Courses

HTM 1103 Introduction to Hospitality and Tourism
Description: Study of lodging, food and beverage, events, tourism and other service industries from a global perspective. Emphasizes development and history, ethical issues, and professional opportunities. Previously offered as HRAD 1103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 1113 Fundamentals of Culinary Production
Description: Food production as related to theories and techniques of foods, their preparation fundamentals using a scientific and experiential approach. Focus on gastronomic basics, national safety and sanitation standards, organizational skills for food operations, standardized recipe and equipment understanding, quality control. Teamwork, communication skills and problem-solving strategies as related to food production environments. Previously offered as HRAD 1113.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hospitality & Tourism Mgmt

HTM 2021 Food Safety and Responsible Service of Alcohol
Description: Principles and theory of food and beverage safety, prevention of foodborne illness outbreaks, and ensuring public health and consumer safety; includes the NRA ServSafe exam and Oklahoma responsible service of alcohol training. Previously offered as HRAD 2021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 2563 Culture, Food, and Travel (G)
Description: Exploration of people, cultures, traditions, and places through food and beverage focused travel. Local and global perspectives for understanding the increasing role that food and drink plays in society and travel. The interrelationships of locale, hospitality, economics, and the environment in creating food and drink destinations. Previously offered as HRAD 3563 and HTM 3563.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 2643 Hotel and Lodging Operations
Description: The organization and administration of hotel and lodging operations including front desk, housekeeping, sales & marketing, food & beverage, and other departments. Exploration of Property Management Systems and related operations management technology. Previously offered as HRAD 3363 and HRAD 2643.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 2664 Restaurant Operations
Prerequisites: HTM 1113 and HTM 2021.
Description: Experiential learning in processes and complexities of food production and front of the house service in a commercial setting with a focus on quality and profitability. Demonstrate proficiency in Point of Sale, reservation systems, and related restaurant operations/management technology and competence in principles of food cost, menu pricing, and staffing. Documentation of the successful completion of the manager version of the ServeSafe Exam required. Previously offered as HRAD 2665 and HTM 2665.
Credit hours: 4
Contact hours: Lecture: 2 Lab: 5 Contact: 7
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Hospitality & Tourism Mgmt

HTM 2900 Hospitality and Tourism Undergraduate Research
Description: An introduction to research in hospitality and tourism including a guided research project under the direction of a faculty member. Previously offered as HRAD 2900. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3101 Introduction to Beers of the World
Prerequisites: Proof of minimum age 21.
Description: Overview of the history of beer, brewing processes/ingredients, developing taste profiles for different styles of beer, food pairing, and current trends in today's beer industry.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3113 People-Centric Business Skills
Description: This course emphasizes the universal applicability of hospitality-driven interpersonal skills in business contexts. Students will develop emotional intelligence, communication, and problem-solving abilities while learning to lead with empathy and integrity. Through practical applications, students will gain knowledge and skills to excel in today's service-oriented business world. May not be used for degree credit with BADM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3120 Special Events Management
Prerequisites: Instructor permission.
Description: Study of special event planning, implementation and evaluation. The interaction between the staff, customer, guests, contractors, and others necessary to implement a successful special event. Additional focus on catering through hotels, restaurants or private companies. Previously offered as HRAD 4421 and HRAD 3120. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3123 Event Planning and Production
Description: Planning, and leadership of events. Focus on working with teams, marketing strategies, budget management, program planning and integration of entertainment production into events. Previously offered as HRAD 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3201 Introduction to Mixology
Prerequisites: Proof of minimum age 21.
Description: An introduction to the art and science of mixology in creating well balanced, flavorful, and unique cocktails. Examination of the role that mixed drinks play in executing a professional and profitable bar operation.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3223 International Travel and Tourism (G)
Description: The study of international travel and tourism for business and pleasure. The management of travel and tourism concepts in the hospitality industry and related businesses around the world. International travel industry financial management, technology, economic planning and policy formulation. Previously offered as HRAD 4223 and HRAD 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 3243 The Business of Tourism
Description: All aspects of the tourism business including segments of global tourism, business practices, economic impact, management as well as marketing strategies and processes. Previously offered as HRAD 2243 and HTM 2243. Same course as HTM 2243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3263 Beverage Business Management
Description: An overview of different types of beverage operations, systems, products, and responsible alcohol service. Emphasis on managerial decisions in developing & operating a facility serving alcohol beverages including facility requirements, feasibility, and marketing strategies. Previously offered as HRAD 4263 and HTM 4263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3283 Financial Analysis in Hospitality and Tourism
Prerequisites: ACCT 2003.
Description: Focus on the Uniform System of Accounts for hotels and restaurants, and on the analysis, presentation, and interpretation of hospitality and tourism industry financial data that affect internal decision-making, budgeting, and financial planning. Previously offered as HRAD 2283 and HTM 2283.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3301 Introduction to Coffee & Tea
Description: Foundations of the original characteristics of coffee and tea from seed and leaf to cup. Discover the language for sensory analysis, assess specialty varietals, and the essential elements of brewing.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3443 Hospitality and Tourism Industry Internship
Prerequisites: BADM 2111 and instructor permission.
Description: Supervised experience in an approved work situation related to a future career in the hospitality, travel and tourism, beverage management, event and/or entertainment, or property management industries. Management and supervisory experience in multiple aspects of the organization. Previously offered as HRAD 3443.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 3473 Managing The Built Environment
Description: Planning and management of the built environment with a focus on hospitality, commercial, retail, and multi-family residential venues including outdoor elements, hardscaping, parking systems and green-scaping. Includes integration and coordination of guest services with built environment management processes, maintenance and renovation, insourcing and outsourcing services, emergency/disaster planning, accessibility requirements, and alternative energy sources. Previously offered as HRAD 3473.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3543 Resort Development and Management
Prerequisites: HTM 2643.
Description: Exploration of planning, development, and management of resort operations. Topics include front office, revenue management, food and beverage, finance, marketing, security and risk management, and convention & meeting services. Property management inclusive of energy, facilities, engineering, and equipment are also covered. Previously offered as HRAD 3943 and HRAD 3543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3573 Franchising
Description: Study of franchising from the perspective of the franchisor and franchisee. Focus on contemporary issues and trends in franchise concept development, franchisor-franchisee relationships, legal and contractual issues, advantages and potential risks of franchising, franchisor/franchisee selection criteria, and international franchising. Previously offered as HRAD 3573.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3623 Purchasing and Cost Control for Hospitality and Foodservice
Prerequisites: ACCT 2003.
Description: Theory, processes, and complexities of procurement and cost controls for products and services utilized in hospitality industries. Emphasis on management of the purchasing process, cost control systems, and technology applications. Previously offered as HRAD 3623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3663 Food and Beverage in Events
Description: Planning, producing and evaluating food and beverage service in events. Examination of assessment of client needs, communication processes, pricing strategies, staffing production techniques, presentation, and service standards/styles, for food and beverage service in events. Previously offered as HRAD 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3721 Introduction to Distilled Spirits
Prerequisites: Proof of minimum age 21.
Description: An introduction to global distilled spirits (brandy, gin, rum, tequila, whiskey, vodka, and various flavored liqueurs), including different styles and production techniques. Additional focus on developing taste profiles for different spirits and current trends in the industry. Previously offered as HRAD 3721.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3783 Diversity, Equity, and Inclusion in Hospitality & Tourism (D)
Description: Concepts, contemporary issues and application of diversity, equity, and inclusion (DEI) in the hospitality and tourism industry. Focus on inclusive leadership, cultural intelligence, unconscious bias, and development of strategies to mitigate sociopsychological barriers and foster diverse, equitable, and inclusive cultures in organizations and business communities. Previously offered as HRAD 3783.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: Diversity

HTM 3813 Principles of Property Management
Description: Characteristics of the professional business of property management including the residential, commercial, and industrial segments. Focus on the property management organization; different types of properties and management procedures; property ownership structures; leasing and landlord tenant laws; marketing and sales of properties; facility management and maintenance; landlord tenant relations and customer service.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3823 Seminar and Leadership Symposium in Real Estate and Property Management
Description: The seminar course will focus on current issues and implications for the future of property management and real estate investment including exploration of sales, marketing, real estate, conflict resolution, negotiating and communication techniques, contracts, finance, human resources, and organizational behavior. A leadership symposium will be integrated and presented by distinguished property and real estate management professionals. Students will also prepare and complete optional industry certification exams for professional accreditation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 3833 Leadership Practicum in Property and Real Estate Management
Description: Application of critical thinking skills to solve problems in property and real estate management. Use of work, and other resources, to gain real-world understanding of management and leadership roles in property & real estate management. Supervised experience in a position (paid/volunteer) related to property and real estate management for at least 100 hours during the semester.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4053 Study Abroad: Contemporary Global Impacts in HTM
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparison of technology, policies, and economics will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4090 International Hospitality Studies
Prerequisites: Instructor Permission.
Description: Participation in a hospitality educational experience outside of the U.S. The international aspects of the hospitality industry especially in the country or countries included in the experience. Development of an understanding of local, regional and national customs and cultures through experiential learning. Previously offered as HRAD 4090. May not be used for degree credit with HTM 5090. Offered for variable credit, 1-18 credit hours, maximum of 18 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4093 European Travel and Tourism (G)
Prerequisites: Instructor permission.
Description: In-depth examination of local/regional/national customs and cultures, and business practices related to travel and tourism in Europe. Previously offered as HRAD 4093. May not be used for degree credit with HTM 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 4103 Legal and Ethical Issues in Hospitality, Tourism, & Gaming
Description: Examination of legal and ethical standards in lodging, food and beverage, alcoholic beverage management, travel and tourism, events, large venues and entertainment, property management, clubs, cruises and casinos. Focus on creating and maintaining business practices that limit potential liability and enhance ethical decision making. Previously offered as HRAD 4103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4120 Advanced Special Events Management
Prerequisites: Instructor permission.
Description: Hands-on study of special events, forums and conferences. Planning activities include conception, planning, implementation, and evaluation of an event, forum or conference including marketing, public relations and volunteer coordination. Previously offered as HRAD 4120. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4163 Hospitality and Tourism Marketing and Sales
Description: Strategies for marketing, sales and decision-making in the hospitality and tourism industries. Includes techniques and methods of customer identification, consumer behavior, competition, product, promotion, placement and pricing strategies as well as developing sales strategies to attract the target market. Previously offered as HRAD 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4183 Sustainable Tourism and Geography
Prerequisites: Junior standing.
Description: Sustainable tourism from a cultural and environmental perspective. Concepts and theories of sustainability and tourism, including human rights, environmental justice, and ethics, emphasizing the global environmental and social effects and possibilities of tourism. Management concepts, sectoral approaches, transport and mobility themes, and emerging issues in the context of sustainability. Same course as GEOG 4443 and GLST 4443. May not be used for degree credit with GEOG 5443. Previously offered as HRAD 4183.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4193 European Cuisine and Beverages (G)
Prerequisites: Instructor permission.
Description: In-depth examination of the historical/modern influences, and local/regional/national customs and cultures related to cuisine and beverages in Europe. Previously offered as HRAD 4193. May not be used for degree credit with HTM 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: International Dimension

HTM 4443 Advanced Hospitality and Tourism Internship
Prerequisites: HTM 3443 and instructor permission.
Description: Management experience in multiple aspects of a hospitality or tourism organization. Exploration of human resources, development of an understanding of organizational behavior, conflict resolution, negotiating and communication techniques. Application of critical thinking skills to solve problems. The interaction between the customer and the products and services provided by the organization. Previously offered as HRAD 4443.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4453 Revenue Management
Description: Focus on revenue management in hospitality and travel/tourism organizations with specific emphasis on pricing strategies, yield management, forecasting sales, and trend analysis. Previously offered as HRAD 4453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4703 Beverage Production and Distribution Systems
Description: Exploration of how major beverages of the world are produced and distributed throughout the United States and elsewhere. Examination of production systems includes farming practices, fermentation, distillation, and producer decision-making. Focus on distribution systems, especially the three-tier system, the supply chain, navigating relationships with vendors, and product selection/procurement.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4723 International Wine & Culture
Prerequisites: Proof of minimum age 21.
Description: Introduction to understanding wine as a cultural product that has influenced the history and culture of the world. Focus on the history, varietals, classifications, production techniques, quality factors, laws, and practices of the major wine growing regions of the world. Emphasis on wine sensory evaluation and critical analysis. Previously offered as HRAD 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: HTM Consumable Material fee of $40 applies.

HTM 4743 Beverage Operations Management
Description: A focus on the operation of a dynamic, modern, and profitable beverage operation including employee recruitment/retention/motivation, technology assisted sales/ordering, and the development of beverage/cocktail program including menu engineering, product mix, profitability, and cost/inventory controls. Also, includes a history of mixology, and distilled spirits of the world. HTM 3263 Beverage Business Management strongly encouraged.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4763 Beverage Quality Assessment & Selection
Prerequisites: Proof of minimum age 21.
Description: A focus on evaluating the sensory experience (sight/smell/taste) and assessing quality factors of non-alcohol (coffee/tea) and alcohol beverages (wine/beer/spirits). Emphasis on how to confidently select and curate high-quality beer, wine, spirits and coffee/tea selections for a beverage program. Also includes information regarding the tasting portions of industry standard certification examinations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4813 Commercial Property and Asset Management
Description: This course provides a comprehensive overview of commercial property management including office, retail, industrial, and management of a portfolio of real estate assets. Students will explore practical insights and strategies, key concepts, tools, and techniques essential for effective management of commercial properties. Topics include lease negotiations, tenant relations, management contracts, maintenance strategies, financial management, and market analysis. Through case studies, discussions, and real-world examples, students will develop the skills and knowledge to be successful.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4823 Gaming Management
Description: Principles and practices of gaming operations management including gaming regulations/control, game types (slot machines, progressive wagering, table games, poker, sports betting), different types of casino operations as well as responsible gaming and the social/cultural/economic impact of the gaming industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4833 Management and Operations of Casinos
Description: Analysis of the variations between casino management and operations and that of other similar hospitality businesses. The operational relationships between revenue generating and revenue support of entities located within casinos, such as food and beverage, entertainment, recreation, and player development will be examined. Topics also include staffing and training, managing slots and tables, and maintaining casino security. Previously offered as HRAD 4833.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 4850 Special Topics in Hospitality and Tourism Management
Description: Special course of study related to specific problems in hospitality/travel/tourism. Previously offered as HRAD 4850. Offered for variable credit, 1-15 credit hours, maximum of 15 credit hours.
Credit hours: 1-15
Contact hours: Contact: 1-15 Other: 1-15
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 4900 Honors Research
Prerequisites: Spears School of Business Honors Program participation, senior standing.
Description: Guided creative component for students completing requirements for College Honors in Spears School of Business. Thesis, creative project or report under the direction of a faculty member in the major area, with second faculty reader and oral examination. Previously offered as HRAD 4900. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
General Education and other Course Attributes: Honors Credit

HTM 4983 Conventions, Conferences, and Meetings
Prerequisites: Instructor permission.
Description: Planning and implementing conventions, conferences, meetings, seminars and symposia. Designing, promoting, managing and evaluating educational events, and contract management. Previously offered as HRAD 4983.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5000 Master's Thesis
Prerequisites: Graduate standing and consent of adviser.
Description: Individual research interests in hospitality administration fulfilling the requirements for the MS degree. Previously offered as HRAD 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5030 Master's Creative Component and Independent Study
Prerequisites: Graduate standing and consent of instructor.
Description: Individual research and study having relevance to the hospitality field and a positive impact on the hospitality industry. Previously offered as HRAD 5030. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5090 International Hospitality Studies
Prerequisites: Instructor Permission.
Description: Participation in a hospitality educational experience outside of the U.S. The international aspects of the hospitality industry especially in the country or countries included in the experience. Development of an understanding of local, regional and national customs and cultures through experiential learning. May not be used for degree credit with HTM 4090. Offered for variable credit, 1-3 credit hours, maximum of 18 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5093 European Travel and Tourism
Prerequisites: Instructor Permission.
Description: In-depth examination of local/regional/national customs and cultures, and business practices related to travel and tourism in Europe. Previously offered as HRAD 4093. May not be used for degree credit with HTM 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5112 Graduate Education and Research
Prerequisites: Graduate students only or consent of instructor.
Description: Systematic introduction to the competencies of graduate education and research in hospitality and tourism education and management. Previously offered as HRAD 5112.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5193 European Cuisine and Beverages
Prerequisites: Instructor Permission.
Description: In-depth examination of the historical/modern influences, and local/regional/national customs and cultures related to cuisine and beverages in Europe. May not be used for degree credit with HTM 4193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5233 Convention and Special Event Management
Description: Meeting and event design, working with industry suppliers, on-site management, post-event analysis, computers and technology, and meetings documentation. Previously offered as HRAD 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5253 Fundamentals of Gaming Management
Description: Comprehensive overview of the gaming industry in the US and globally through in-depth examination of theoretical and practical components of gaming. Focuses on gaming history, contemporary impacts and issues, as well as application of gaming industry principles in various operational divisions and specializations. Previously offered as HRAD 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5263 Applied Revenue Management in Hospitality and Tourism Management
Description: This course uses an online simulation tool to facilitate an in-depth understanding of revenue management's key concepts and applicability of revenue maximization strategies. The components of effective revenue management will be executed through entering decisions in the online simulation and their effects on overall profitability on the lodging operation will be analyzed and evaluated.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5273 Casino Operations and Management
Description: Comprehensive overview of the differences of casino operations and management compared to other similar non-gaming hospitality operations. The course will examine the operational relationship of revenue generation and revenue support from entities found within casinos such as food and beverage, entertainment, recreation, and player development. Other crucial elements such as training and staffing, slot and table management, casino security and surveillance and public perception will all be undertaken as part of the course.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5323 Hospitality and Tourism Financial Management
Description: Key concepts, tools and techniques critical for managerial decision making in financial aspects of hospitality organizations. Previously offered as HRAD 5323.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5383 Gaming Law, Regulations, and Compliance
Description: Comprehensive investigation of policies and procedures as well as compliance issues historically and currently governing gaming activities that have developed through legislation, common law, and various regulatory bodies. Students will work through assigned review materials and quizzes for general understanding, then discuss and collaboratively analyze that material.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5413 Hospitality and Tourism Human Resources Management
Description: Key concepts, tools and techniques critical for Hospitality and Tourism Human resource management, including diversity and inclusion in the hospitality workforce, employee development, labor issues, and maintaining a productive workforce. Previously offered as HRAD 5413.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5423 Hospitality and Tourism Marketing Management
Prerequisites: Undergraduate marketing course.
Description: The concepts and strategies of hospitality and tourism marketing management and customer development. Previously offered as HRAD 5423.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 5443 Hospitality & Tourism Management Graduate Internship
Description: Supervised work internship with an approved employer and worksite related to a future career in the hospitality industry. Experience must include management/supervisory aspects within a hospitality organization.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5503 Big Data Analytics in Hospitality and Tourism Management
Description: An in-depth study of various topics and techniques in big data analytics, especially in the hospitality and tourism research domains. Fundamentals of data acquisition, data transformation, data visualization, and data mining via the discussion of literature and hands-on analytical activities. Concepts, methodologies, techniques, and related software packages.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5513 Hospitality and Tourism Strategic Management
Description: Focus on strategic decision making in hospitality and tourism organizations. Examination of the processes by which managers strategically position the organization and allocate resources to maximize its economic value in uncertain, dynamic, and competitive environments. Previously offered as HRAD 5513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5813 Research Methods and Analytics in Hospitality and Tourism
Description: Scientific methods and current research methodologies and analytical and data visualization techniques as applied to problems in hospitality and tourism management. Proposal planning, research design, statistical use and interpretation, and research reporting. Previously offered as HRAD 5813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

HTM 5850 Special Topics in the Hospitality and Tourism Industry
Description: Special topics related to the hospitality and tourism industry. A problem-solving technique to design the research model and investigative procedures. Presentations to faculty, students and industry professionals at specialized workshops with research, instructional and industry project components. Previously offered as HRAD 5850. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 5870 Current Issues in the Hospitality and Tourism Industry
Description: Special recurring problems in the hospitality and tourism industry. Broad perspective of these issues and their application to the industry. Critical thinking skills to solve operational dilemmas. Previously offered as HRAD 5870. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6000 Doctoral Dissertation
Prerequisites: Consent of major professor.
Description: Research in hospitality administration for the PhD degree. Previously offered as HRAD 6000. Offered for variable credit, 1-12 credit hours, maximum of 30 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6113 Hospitality and Tourism Education
Prerequisites: Doctoral degree students only or consent of instructor.
Description: Theoretical and practical components of hospitality and tourism education with emphasis on universities, community colleges and vocational schools. Previously offered as HRAD 6113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 6713 Contemporary Hospitality and Tourism Theory
Prerequisites: Doctoral degree students only or consent of instructor.
Description: Advanced survey of both the classic and current body of knowledge in the area of hospitality and tourism management. Introduction to important works in the research area of hospitality and tourism management that will prepare students to assess fundamental research questions, opportunities, and limitations of the research. Previously offered as HRAD 6713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

HTM 6880 Doctoral Seminar in Hospitality and Tourism Management
Description: Study of the latest developments in hospitality and tourism research and management. Previously offered as HRAD 6880. Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Hospitality & Tourism Mgmt

HTM 6993 Advanced Hospitality and Tourism Research
Prerequisites: Graduate level basic and/or intermediate research methods and intermediate statistics and doctoral degree student or consent of instructor.
Description: The latest advances in hospitality and tourism research theory development, modeling and research design. Focus is on improving ability to effectively develop/build a conceptual framework/model with an appropriate research design and hypotheses. Previously offered as HRAD 6993.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Hospitality & Tourism Mgmt

Undergraduate Programs

- Hospitality and Tourism Management, BSBA (p. 2781)
- Hospitality and Tourism Management: Event Management, BSBA (p. 2783)
- Real Estate and Property Management, BSBA (p. 2787)

Graduate Programs
Master of Science Degree

The master's degree program prepares students for leadership and decision-making with critical thinking skills, problem-solving, and in-depth knowledge of hospitality and tourism theory and concepts along with industry practice and applications. Admission to the graduate program is based on a variety of factors including undergraduate grade-point average, letters of recommendation, and statement of purpose and goals of the applicant. Prerequisite courses may be required for students with undergraduate degrees in areas other than hospitality or tourism. The degree requires a minimum of 32 credit hours for the thesis plan or 32 credit hours for the professionally focused non-thesis plan.

Please visit our Graduate College catalog page for more information:

http://catalog.okstate.edu/graduate-college/masters-degrees/hospitality-tourism-management-ms/

Doctor of Philosophy Degree

The PhD in Business Administration with a concentration in Hospitality and Tourism Management provides the competencies needed to teach and conduct research and apply findings in the hospitality and tourism industry. The program includes a strong emphasis on research and application of statistical procedures, as well as to gain experience in resource generation, knowledge sharing and community engagement. A minimum of 60 hours beyond the master's degree is required.

A customized part-time doctoral degree program is also available for those students, especially educators, who would prefer to pursue their degree without maintaining full-time enrollment on campus.

Competitive graduate teaching and research assistantships, graduate fellowships and tuition waivers are available to qualified applicants.

Please visit our Graduate College catalog page for more information:

http://catalog.okstate.edu/graduate-college/doctoral/business-administration-hospitality-tourism-management-phd/

Minors

- Event Management (EVMG), Minor (p. 2778)
- Hospitality Business Administration (HOSB), Minor (p. 2785)

Certificates

Undergraduate Certificates

- Casino, Gaming and Resort Management, UCRT (p. 2777)
- Event Management, UCRT (p. 2779)
- Global Beverage Business, UCRT (p. 2780)
- Property and Real Estate Management, UCRT (p. 2786)
- Travel and Tourism Management, UCRT (p. 2790)

Graduate Certificates

- Casino and Gaming Management, GCRT (http://catalog.okstate.edu/graduate-college/graduate-certificate/casino-gaming-management-gcrt/)
- Hospitality and Tourism Analytics, GCRT (p. 3105)

Faculty

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Elisaveta (Lisa) Slevitch, PhD—Interim Department Head/Associate
Professor
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Associate Professors: Yeasun Chung, PhD; Cortney Norris, PhD; Courtney Suess, PhD
Assistant Professors: Jinyoung Im, PhD; Cortney Norris, PhD; Chen-Wei (Willie) Tao, PhD
Professors of Professional Practice: Silvio Ceschini, MS; Mark Cochran, M.Ed, CEC, CFBE, AAC; Ashley Peterson, MBA, CEPC; Steven Ruby, BS, JD; Stacy Tomas, PhD; Steven West, MS

Casino, Gaming and Resort Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Required Courses		
HTM 4823	Gaming Management	3
HTM 4833	Management and Operations of Casinos	3
HTM 4103	Legal and Ethical Issues in Hospitality, Tourism, & Gaming	3
MGMT 4963	Online and Mobile Gaming Management	3
Hours Subtotal		**12**
Guided Electives		
Select 4 hours from the following:		4
HTM 2643	Hotel and Lodging Operations	
HTM 3123	Event Planning and Production	
HTM 3201	Introduction to Mixology	
HTM 3263	Beverage Business Management	
HTM 3283	Financial Analysis in Hospitality and Tourism	
HTM 3443	Hospitality and Tourism Industry Internship	
HTM 3543	Resort Development and Management	
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	
HTM 3721	Introduction to Distilled Spirits	
HTM 4453	Revenue Management	
HTM 4983	Conventions, Conferences, and Meetings	
MKTG 3323	Consumer and Market Behavior	
MKTG 3653	Marketing Analytics	
MKTG 4513	Sales Management	
MKTG 4773	Services Marketing	
MGMT 3313	Human Resource Management	
MGMT 4573	Managerial Decision Making	
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Event Management (EVMG), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.00
Total Hours: 15

A minimum of 6 credit hours for the minor must be earned in residence at OSU. Students with majors outside of the SSB may find that some courses may have additional prerequisites.

Code	Title	Hours
Required Courses		
HTM 3123	Event Planning and Production	3
HTM 3663	Food and Beverage in Events	3
HTM 4983	Conventions, Conferences, and Meetings	3
Select 6 credits from HTM courses. [1]		6
A combination of HTM 3120 or HTM 4120 is recommended for attaining hands-on event design, planning and production experience.		
Total Hours		**15**

1

Students may find that some courses have additional prerequisites. Please consult your academic advisor before enrollment.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Event Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Required		
HTM 4983	Conventions, Conferences, and Meetings	3
HTM 3123	Event Planning and Production	3
HTM 3663	Food and Beverage in Events	3
Electives		
Select 4 hours of any HTM (Hospitality and Tourism Management) courses not already taken to satisfy certificate requirements. [1, 2]		4
Select 3 hours of Spears School of Business courses not already taken to satisfy certificate requirements.		3
Total Hours		**16**

1

A combination of HTM 3120 or HTM 4120 is recommended for attaining hands-on event design, planning and production experience.

2

An internship experience (HTM 3443 Hospitality and Tourism industry internship) is also recommended to further gain knowledge and experience.

Additional Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Global Beverage Business, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
Required		
HTM 3263	Beverage Business Management	3
Select 13 hours from the following:		**13**
HTM 3301	Introduction to Coffee & Tea	
HTM 3101	Introduction to Beers of the World	
HTM 3201	Introduction to Mixology	
HTM 3721	Introduction to Distilled Spirits	
HTM 4723	International Wine & Culture	
HTM 4703	Beverage Production and Distribution Systems	
HTM 4743	Beverage Operations Management	
HTM 4763	Beverage Quality Assessment & Selection	
Or 3 hours of upper-division Hospitality and Tourism Management or Spears School of Business courses not already taken to satisfy certificate requirements		
Total Hours		**16**

Additional Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Hospitality and Tourism Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Hospitality & Tourism Management Major Requirements		
Minimum Grade of "C" Required in HTM Major Requirements		
HTM 1103	Introduction to Hospitality and Tourism	3
HTM 1113	Fundamentals of Culinary Production	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
HTM 2643	Hotel and Lodging Operations	3
HTM 2664	Restaurant Operations	4
HTM 3243	The Business of Tourism	3
HTM 3283	Financial Analysis in Hospitality and Tourism	3
HTM 3443	Hospitality and Tourism Industry Internship	3
HTM 3543	Resort Development and Management	3
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	3
HTM 3263	Beverage Business Management	3
HTM 4453	Revenue Management	3
Hours Subtotal		**65**
Electives [3]		**12**
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

- A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
- Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
HTM 1103	Introduction to Hospitality and Tourism	3
3 hours of MATH or STAT designated 'Q'		3
'H' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
HTM 1113	Fundamentals of Culinary Production	3
EEE 2023	Introduction to Entrepreneurship	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
ECON 2003	Microeconomic Principles for Business	3
	Hours	**16**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
MSIS 2103	Business Data Science Technologies	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
BADM 2111	Career Planning for Business Success	1
HTM 2643	Hotel and Lodging Operations	3
	Hours	**16**
Spring		
HTM 2664	Restaurant Operations	4
HTM 3283	Financial Analysis in Hospitality and Tourism	3
POLS 1113	American Government	3
'LN' designated course		4
	Hours	**14**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
MKTG 3213	Marketing (S)	3
FIN 3113	Principles of Finance	3
BADM 3113	Practical Business and Interpersonal Skills	3
LSB 3213	Legal and Regulatory Environment of Business	3
'G' designated course		3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
HTM 3543	Resort Development and Management	3
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	3
'N' designated course		3
3 hours of electives		3
	Hours	**15**
Summer		
HTM 3443	Hospitality and Tourism Industry Internship [1]	3
	Hours	**3**
Senior		
Fall		
HTM 3243	The Business of Tourism	3
HTM 3263	Beverage Business Management	3
3 hours of electives		3
'D' designated course		3
	Hours	**12**
Spring		
HTM 4453	Revenue Management	3
MGMT 4513	Strategic Management	3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

1

A management-based professional experience with concurrent enrollment in the class. 480 hours of practical hospitality work experience is required prior to enrolling.

Hospitality and Tourism Management: Event Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Hospitality & Tourism Management Requirements		
Minimum Grade of "C" Required in HTM Major Requirements		
HTM 1103	Introduction to Hospitality and Tourism	3
HTM 1113	Fundamentals of Culinary Production	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
HTM 2643	Hotel and Lodging Operations	3
HTM 2664	Restaurant Operations	4
HTM 3123	Event Planning and Production	3
HTM 3243	The Business of Tourism	3
HTM 3263	Beverage Business Management	3
HTM 3283	Financial Analysis in Hospitality and Tourism	3
HTM 3443	Hospitality and Tourism Industry Internship	3
HTM 3543	Resort Development and Management	3
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	3
HTM 4453	Revenue Management	3
Select 9 credits from:		9
HTM 3120	Special Events Management	
HTM 3663	Food and Beverage in Events	
HTM 4120	Advanced Special Events Management	
HTM 4983	Conventions, Conferences, and Meetings	
Hours Subtotal		**77**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3 If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

- A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
- Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
HTM 1103	Introduction to Hospitality and Tourism	3
3 hours of MATH or STAT designated 'Q'		3
'H' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
HTM 1113	Fundamentals of Culinary Production	3
EEE 2023	Introduction to Entrepreneurship	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
ECON 2003	Microeconomic Principles for Business	3
HTM 2021	Food Safety and Responsible Service of Alcohol	1
	Hours	**16**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
MSIS 2103	Business Data Science Technologies	3
MGMT 3013	Fundamentals of Management (S)	3
BADM 2111	Career Planning for Business Success	1
HTM 2643	Hotel and Lodging Operations	3
'H' designated course		3
	Hours	**16**
Spring		
HTM 2664	Restaurant Operations	4
HTM 3283	Financial Analysis in Hospitality and Tourism	3
POLS 1113	American Government	3
'LN' designated course		4
	Hours	**14**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
MKTG 3213	Marketing (S)	3
FIN 3113	Principles of Finance	3
BADM 3113	Practical Business and Interpersonal Skills	3
LSB 3213	Legal and Regulatory Environment of Business	3
HTM 3123	Event Planning and Production	3
	Hours	**16**
Spring		
MSIS 3223	Principles of Data Analytics	3
HTM 3543	Resort Development and Management	3
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	3
'N' designated course		3
3 hours from 9 hour list in major		3
	Hours	**15**
Summer		
HTM 3443	Hospitality and Tourism Industry Internship	3
	Hours	**3**
Senior		
Fall		
HTM 3243	The Business of Tourism	3
HTM 3263	Beverage Business Management	3
'G' designated course		3
3 hours from 9 hour list in major		3
	Hours	**12**
Spring		
HTM 4453	Revenue Management	3
MGMT 4513	Strategic Management	3
'D' designated course		3
3 hours from 9 hour list in major		3
	Hours	**12**
	Total Hours	**120**

Hospitality Business Administration (HOSB), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.0 GPA
Total Hours: 15

Code	Title	Hours
Course Requirements [1]		
Required - Select one course		3
HTM 2664	Restaurant Operations	
HTM 3543	Resort Development and Management	
HTM 3623	Purchasing and Cost Control for Hospitality and Foodservice	
HTM 3263	Beverage Business Management	
HTM 4453	Revenue Management	
Select 12 hours of any Hospitality and Tourism Management (HTM) classes [2]		12
Total Hours		**15**

1

A minimum of 9 upper-division HTM credits are required for the minor.

2

Some HTM courses have prerequisite(s). Credit hours for prerequisite(s) may be included in this category. Please consult your academic advisor before enrollment.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Property and Real Estate Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 405-744-2772, 155 Business Building

Total Hours: 16

Code	Title	Hours
Core Requirements		
FIN 2713	Real Estate Principles and Practices	3
HTM 3813	Principles of Property Management	3
Hours Subtotal		**6**
Electives		
Select 10 hours from the following:		10
HTM 3473	Managing The Built Environment	
HTM 3543	Resort Development and Management [1]	
HTM 3783	Diversity, Equity, and Inclusion in Hospitality & Tourism (D)	
HTM 3823	Seminar and Leadership Symposium in Real Estate and Property Management	
HTM 4813	Commercial Property and Asset Management	
FIN 3713	Real Estate Investment and Finance [2]	
FIN 4713	Real Estate Valuation & Appraisal [7]	
ECON 3043	Real Estate Economics [8]	
ECON 4043	Real Estate and Capital Markets [10]	
LSB 3213	Legal and Regulatory Environment of Business	
LSB 4523	Law of Real Property [3]	
MKTG 3473	Professional Selling [4]	
MKTG 3653	Marketing Analytics [4]	
MKTG 4773	Services Marketing [4]	
MGMT 3313	Human Resource Management [5]	
MGMT 4713	Negotiation Essentials [5]	
BADM 3111	Professional Development for Business Success [6]	
AGEC 4513	Farm Appraisal [9]	
DM 4063	Sustainability in the Built Environment	
DM 4433	Facility Management and Design	
DM 4533	Diversity and Inclusion in the Built Environment (D)	
Hours Subtotal		**10**
Total Hours		**16**

Prerequisite

[1] **HTM 2643: Lodging Operations**

[2] **FIN 3113: Finance**

[3] **LSB 3213: Legal and Regulatory Environment of Business**

[4] **MKTG 3213: Marketing**

[5] **MGMT 3013: Fundamentals of Management**

[6] **BADM 2111: Career Planning for Business**

[7] FIN 3713: Real Estate Investment and Finance

[8] ECON 2003 or ECON 2103: Microeconomic Principles for Business or Introduction to Microeconomics

[9] AGEC 3423: Farm and Agribusiness Management

[10] ECON 2003 or ECON 2203: Microeconomic Principles for Business or Introduction to Macroeconomics

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Real Estate and Property Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Culture (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Courses designated (N)		7
Must include one Laboratory-Based Inquiry (L) course		
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Course designated (D)		3
Global Cultural Competency (G)		
Course designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
Business Core [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Required Courses		
Minimum Grade of "C" in Required Courses		
HTM 3473	Managing The Built Environment	3
HTM 3813	Principles of Property Management	3
HTM 4813	Commercial Property and Asset Management	3
FIN 2713	Real Estate Principles and Practices	3
FIN 3713	Real Estate Investment and Finance	3
FIN 4713	Real Estate Valuation & Appraisal	3
ECON 3043	Real Estate Economics	3
LSB 4523	Law of Real Property	3
Select 12 hours from the following:		12
HTM 3543	Resort Development and Management	
HTM 3573	Franchising	
HTM 3783	Diversity, Equity, and Inclusion in Hospitality & Tourism (D)	
HTM 3823	Seminar and Leadership Symposium in Real Estate and Property Management	
HTM 3833	Leadership Practicum in Property and Real Estate Management	
FIN 3613	General Insurance	
FIN 4343	Valuation and Financial Modeling	
FIN 4843	Risk Management	
MKTG 3473	Professional Selling	
MKTG 3653	Marketing Analytics	
MKTG 4513	Sales Management	
MKTG 4773	Services Marketing	
MGMT 3133	Developing Leadership Skills	
MGMT 3313	Human Resource Management	
MGMT 4573	Managerial Decision Making	
MGMT 4713	Negotiation Essentials	
ECON 3023	Managerial Economics	
ECON 3313	Money and Banking	
ECON 3423	Public Finance	
ECON 4043	Real Estate and Capital Markets	
ECON 4913	Urban and Regional Economics	
EEE 3023	Introduction to Entrepreneurial Thinking and Behavior	
EEE 4333	Launching a Business: The First 100 Days	

EEE 4653	Venture Capital	
EEE 4703	Project Management for Entrepreneurship	
MSIS 3163	Web Design Essentials	
MSIS 3243	Descriptive Analytics	
ACCT 3203	Cost Accounting	
ACCT 3013	Federal Income Taxation	
ACCT 4033	Advanced Federal Income Taxation	
AGEC 4513	Farm Appraisal	
Hours Subtotal		**66**
General Electives [3]		
Select 11 hours of electives. [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS or PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**11**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
3 hours of MATH or STAT designated 'Q'		3
EEE 2023	Introduction to Entrepreneurship	3
'G' designated course		3
	Hours	**16**
Spring		
'H' designated course		3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MSIS 2103	Business Data Science Technologies	3
FIN 2713	Real Estate Principles and Practices	3
'H' designated course		3
	Hours	**16**
Spring		
HTM 3473	Managing The Built Environment	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
3 hours from 12-hour list in major		3
'D' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
HTM 3813	Principles of Property Management	3
3 hours from 12-hour list in major		3
3 hours of electives		3
	Hours	**16**
Spring		
'LN' designated course		4
BADM 3113	Practical Business and Interpersonal Skills	3
MSIS 3223	Principles of Data Analytics	3
ECON 3043	Real Estate Economics	3
FIN 3713	Real Estate Investment and Finance	3
	Hours	**16**
Senior		
Fall		
HTM 4813	Commercial Property and Asset Management	3
FIN 4713	Real Estate Valuation & Appraisal	3
3 hours from 12-hour list in major		3
3 hours electives		3

2 hours electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
LSB 4523	Law of Real Property	3
3 hours from 12-hour list in major		3
3 hours electives		3
	Hours	**12**
	Total Hours	**120**

Travel and Tourism Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Total Hours: 16

Code	Title	Hours
Required Courses		
HTM 3223	International Travel and Tourism (I)	3
HTM 3243	The Business of Tourism	3
Hours Subtotal		**6**
Electives [1]		
Select 10 hours from the following:		10
MKTG 4123	Influencer Marketing	
HTM 3783	Diversity, Equity, and Inclusion in Hospitality & Tourism (D)	
HTM 4183	Sustainable Tourism and Geography [2]	
HTM 1103	Introduction to Hospitality and Tourism	
HTM 3563	Culture, Food, Beverage, and Travel (I)	
EEE 4333	Launching a Business: The First 100 Days	
HTM 4090	International Hospitality Studies	
HTM 4093	European Travel and Tourism (I)	
HTM 4103	Legal and Ethical Issues in Hospitality, Tourism, & Gaming	
BADM 2093	Study Abroad: Contemporary International Culture and Business Impacts	
BADM 3090	Study Abroad (I)	
BADM 4093	Study Abroad: Business Impacts of Contemporary International Culture (I)	
MKTG 4543	Social Media Strategies [3]	
MKTG 4773	Services Marketing [3]	
MGMT 3013	Fundamentals of Management (S)	
GEOG 4143	Geography of Travel and Tourism	
GEOG 4153	Geography of Outdoor Recreation	
Hours Subtotal		**10**
Total Hours		**16**

1

Other study abroad programs, semester study abroad programs, and modern foreign language may be considered as electives with approval from the Program Director.

2

HTM 4183 may be replaced by GEOG 4443 or GLST 4443 with approval by the Program Director.

3

MKTG 3213 is the prerequisite.

Other Requirements

A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Management

The purpose of organizations is to channel the efforts of individuals to accomplish goals working together in a meaningful way to realize success in business or in solving pressing social problems requiring skilled managers.

The field of management is concerned with applying social, psychological and economic theories of human behavior to the real-world problems of designing organizations leading and motivating employees, planning effective courses of action and efficiently allocating resources. Since the field of management deals with real-world problems, students should have an interest in acquiring a deep understanding of human behavior and applying this knowledge in a variety of different contexts to create value for themselves and others.

The Department of Management offers an undergraduate major in management with options in human resource management (HRM), sports management, management consulting, and business sustainability & nonprofit management. The department also offers graduate studies leading to an MBA degree or a PhD degree. The disciplines spanned by these degrees offer dynamic, exciting career possibilities to students at all levels.

Management

Undergraduate students should look forward to both intellectual growth and the development of management skills that are in high demand in today's competitive business world.

The Management major, as well as the four optional specializations, are concerned with the analytical process and the application of decision tools and relevant theory to creative problem solving. While the topics vary from one option to another, the common thread running through the Management major is the rational process of managing organizations, solving problems and accomplishing goals.

The major in management offers dynamic, exciting possibilities for study and employment by preparing students for leadership positions in all types of organizations. Some examples of topics include leadership, strategic management, planning courses of action, organizational behavior, resource allocation and administration. Students with degrees in management are employed by organizations of all types and sizes as managers or staff specialists. The major has flexibility so that the student may include coursework from any of the other business disciplines. The management major is a good choice for those interested in for profit leadership roles in business, nonprofit and public sector organizations.

Option in Human Resource Management

Students in the human resource management option study topics pertaining to the management and well-being of an organization's workforce, including compensation administration, forecasting demand for personnel, labor relations and collective bargaining, recruitment and selection, and training and development. This option is designed to prepare students for careers in human resource management or for careers that facilitate the attainment of a competitive advantage through human capital. A career as an HRM professional offers many opportunities, such as developing and implementing innovative HR policies and assisting employees with career challenges and opportunities. For those who enjoy working with both the people and the management systems side of organizations, a career as an HRM professional offers many opportunities for career satisfaction and personal development.

Option in Sports Management

The sports industry is a growing segment of our economy. Whether it is at the amateur, college, minor league or professional level, sports organizations are in need of graduates with business savvy. Sports enterprises are becoming increasingly concerned with their “bottom line,” and they need employees who have business skills as well as expertise in the sports industry. The sports industry includes amateur, college, minor league and professional level sports organizations and is an industry that is growing in importance in our economy and society. Our sports management program is one of the few in the country that is housed within a business management department, so we offer our students the opportunity to gain important business management skills while learning about the unique nature of sports organizations.

Option in Management Consulting

Many career options today involve providing direct business acumen to organizations. The management consulting career option combines developing a practical and applied perspective of solving business problems while also developing conceptual and analytical problem-solving skills. A growing number of firms are now looking for undergraduate and graduate students with a wide skill set to help them solve problems for clients.

Option in Business Sustainability and Nonprofit Management

We created a combined option for students who are interested in different sectors of the economy. Business sustainability is built around the triple bottom line imperative of protecting and enhancing the current and long-term future of the organization, the quality of life of the people impacted by the organization, and the health of the natural environment. The nonprofit sector provides services and experiences for citizens that are unmet by government or the private sector or can be delivered in a different way. Topics include differences between the for-profit and nonprofit sectors regarding generating revenue, managing a blended workforce of paid staff and volunteers, public image, accountability and measures of success.

Courses

MGMT 3011 Business, Government and Society
Description: Students will be exposed to topics in business sustainability including ethics and corporate responsibility; social environment and stakeholders; natural environment and externalities; and the regulatory environment.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3013 Fundamentals of Management (S)
Description: Survey of management principles and techniques. Examines a variety of issues at individual, team and organizational levels and challenges faced by today's managers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Society & Human Behavior

MGMT 3021 Practical Business Skills: Success Strategies
Description: This course introduces students to practical business skills by developing behaviors and exploring routines that correlate with career success. Specific attention to risk taking is explored.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3031 Practical Business Skills: Personal Decision Making
Description: This course teaches practical business skills by introducing students to improved decision making. Specifically, students will explore life decisions, career choices and improved personal budgeting and management skills.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3041 Practical Business Skills: Critical Thinking Skills
Description: This course introduces students to practical business skills including critical thinking, analytical skills, reason and the art of self-reflection. Students will also learn about imagination, intellectual bravery and the thinking skills needed to succeed in a rapidly changing world.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3123 Managing Behavior and Organizations
Prerequisites: MGMT 3013.
Description: Focuses on the complexities of human behavior in organizational settings. Performance expectations and determinants at the individual, team and organizational levels are examined. Priority enrollment is given to management majors.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3133 Developing Leadership Skills
Prerequisites: MGMT 3013.
Description: The study of personal, interpersonal and group factors relating to leadership performance. An integration of the theory and practice of leadership. May not be used for degree credit with BADM 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3313 Human Resource Management
Prerequisites: MGMT 3013.
Description: Policies and practices used in personnel management. Focuses upon the functions of a human resource management department.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3921 Name, Image, and Likeness: Sports Business
Description: This course will provide an overview of revenue generation in collegiate sports, focusing on the recent changes in name, image, and likeness for NCAA athletes. Topics will include history and development of amateur sports in the United States, organization and structure of the NCAA, and marketing and finances within collegiate athletics. Special attention will be given to understand name, image, and likeness challenges and opportunities in the current and future collegiate sports marketplace.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3943 Sports Management
Prerequisites: MGMT 3013.
Description: Basic management skills necessary in the operation of sport organizations. The social, behavioral and managerial foundations of sport management, public relations, finance, economics, budgeting in the sport industry and managing a sports facility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 3963 Social Issues in Sports Management
Description: Analysis of the external environment and its relationship to sports management will be explored. Topical social issues will be discussed and presented and students will gain insight on how sports organizations operate complex issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4011 Crucial Interactions
Description: Examines methods for increasing positive communication between you and organizational members. Crucial conversations are those conversations that we must have. Ways to increase the free-flow of dialogue to maximize benefit from a crucial conversation are discussed. No credit for students with credit in MGMT 5011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4013 Current Topics in Management and Leadership
Prerequisites: MGMT 3013.
Description: Examination of selected topics representing the most current management and leadership theories and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4021 Managing Professional Relationships
Description: The study of political behaviors and ways to use them effectively in order to be successful in your career. Ways to be prepared for political dynamics at work and what you can do to emerge a winner will be discussed. No credit for students with credit in MGMT 5021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4031 Leading Organizational Change
Description: An introduction to ways of leading change in an organization to keep pace with the economy and the competition. Building an eight step process for developing, selling and implementing change initiatives. No credit for students with credit in MGMT 5031.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4033 Management of Sustainable Enterprises
Description: Students will be introduced to the social and natural environments and threats to sustainability. The course will cover the external drivers of sustainability as well as internal responses to these pressures. May not be used for degree credit with MGMT 5033. Previously offered as MGMT 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4041 Performance Management
Description: A study of the role of a performance management (PM) system in an organization, the basic components of a PM system (standards, measurement, judgment and action), PM methods and performance management interviews and the Balanced Scorecard. No credit for students with credit in MGMT 5041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4051 Creating Ethical Work Places
Description: An examination of the meaning of ethics in business and human resource management, how ethical, work-related behavior can be maximized, and how ethical organizational cultures facilitate organizational effectiveness. Establishing and critiquing an ethics program and examining your own code of ethics. No credit for students with credit in MGMT 5051.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4053 Study Abroad: Contemporary Global Impacts in Management
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4061 Managing Confrontations
Description: Crucial confrontations directly address gaps between expectations and performance with a model that ensures individual and team effectiveness. Learn to hold people accountable, master face-to-face performance discussions, motivate without using power, enable without taking over, and move to action. It will improve the quality of your life and of your organization. No credit for students with credit in MGMT 5061.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4063 Management of Corporate Philanthropy
Description: The course is designed as an opportunity for students to learn about the relationship between nonprofit and for-profit organizations, about individual and corporate philanthropy, and possibly to take part in a philanthropic experience.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4073 Management and Ethical Leadership
Description: This course focuses on the application and evaluation of real-life ethical dilemmas using ethical decision-making models. Students will evaluate personal value systems, individual, leadership driven, organizational, and community ethical issues. Students may not take both MGMT 4073 and MGMT 5073 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4083 Corporate and Social Responsibility
Prerequisites: MGMT 3013.
Description: Companies and organizations are powerful entities and have potential to harm or to do good in the pursuit of profit. This "good" is corporate social responsibility (CSR) and it's becoming a necessity in the corporate world. Students will be exposed to managerial responsibility as well as social responsibility at the corporate level. Teaching methods may include case analysis and business simulation. May not be used for degree credit with MGMT 5083.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4093 Management of Nonprofit Organizations
Description: Students will be introduced to the role of nonprofits in the economy including management systems, strategy, and the interface between nonprofits, other businesses and various stakeholders. May not be used for degree credit with MGMT 5093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4123 Labor Management Relations
Prerequisites: MGMT 3013.
Description: Labor relations and collective bargaining. Negotiation and administration of labor agreements and employee relations in non-union organizations. Modes of impasse resolution.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4133 Total Rewards
Prerequisites: MGMT 3313.
Description: This introductory course focuses on the fundamentals of compensation; such as, the legislative environment, compensations theories, job analysis, job evaluation, wage structures, and indirect compensation programs. May not be used for degree credit with MGMT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4143 Managing Stress and Anxiety at Work
Description: Exploring the dynamics of stress and anxiety in the workplace from both managerial and employee perspectives. Students will be exposed to psychological theories and organizational practices to learn creative strategies aimed at fostering resilience, enhancing well-being, and optimizing productivity in the face of workplace pressures. Through case studies, discussions, and practical exercises, students will develop actionable integrating evidence-based techniques for developing personal resilience and supportive workplaces.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4153 Talent Development
Prerequisites: MGMT 3313.
Description: The role of training and development in organizational sustainability and competitiveness is examined. Topics include assessing training needs, developing and delivering training, evaluating training effectiveness, and career development. Students develop a training program and trainer skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4163 Fundraising for Nonprofit Organizations
Description: Students will be introduced to the theory and practice of raising external funding for social causes. Course may include exposure to external speakers and nonprofit executives. May not be used for degree credit with MGMT 5163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4213 The Fair Workplace (D)
Description: Students are introduced to an increasingly diverse American workforce. Successful leaders need to understand the legal dynamics of fairness (e.g., equal employment opportunity legislation), the cultural issues that challenge inclusiveness at work, and the interpersonal competence that enables them to interact with a wide-range of individuals. In this class, students will examine how managers build a successful organization by embracing fair organizational practices for diversity and inclusion.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: Diversity

MGMT 4233 Legal and Ethical Issues in a Diverse Workplace
Prerequisites: MGMT 3013
Description: Explores legal and ethical issues related to managing a diverse workplace. Students will learn about the impact of discrimination and apply concepts of diversity and inclusion. Regulatory environment will be explored as well as employment practices, prohibitions of discrimination and harassment based upon race, national origin, gender, age, disability, and sexual orientation, and will focus on the link between issues of racism/diversity and ethical behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4313 Organization for Action
Prerequisites: MGMT 3013.
Description: A behavioral approach to the study of inter-organizational processes and the implementation strategies of firms. Building on Strategic Management and Human Resource Management, from the behavioral science, the study of the cognitive, social, cultural, and political aspects of strategy implementation in simple and complex organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4403 Environmental Sustainability for Business
Description: The course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4413 Change Management
Prerequisites: MGMT 3013.
Description: Managing organizational change and redesign. The study of organizational change processes and the enhancement of performance through change management. Study of the body of knowledge and applications in this branch of organizational science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4423 Environmental Problem Analysis for Business
Description: This course reviews the process of environmental problem analysis using current practical examples. This course draws on theories from various disciplines and applies appropriate techniques of analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4453 Environmental Management Practicum for Business
Description: This course explores methods of analyzing sustainable solutions to complex environmental, safety and health problems using an integrated team approach. This approach combines technical, legal, economic, and sociopolitical information into a coherent analytical framework.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4463 Industrial Ecology for Business
Description: Provides students with an overview and broad understanding of ecology principles as applied to an industrial setting. The course begins with an overview of general ecological principles such as ecosystem components and structures, biogeochemical cycles, energy flows, and properties of populations. The course concludes with a consideration of industrial ecology principles such as sustainability, pollution prevention, life cycle assessment and waste minimization.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4493 Applied Environmental Standards for Business Managers
Description: Foundational understanding of the complex regulatory framework related to waste management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4513 Strategic Management
Prerequisites: Senior standing.
Description: Builds on concepts from business core courses to explain the upper management tasks of formulating and implementing strategies that increase organizational performance. Teaching methods may include case analysis and business simulation. Course previously offered as BADM 4513 and BADM 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4533 Leadership Dynamics
Prerequisites: MGMT 3013.
Description: Contemporary business challenges require managerial leadership of the highest order. Students will learn about the latest developments in leadership theory and research. Students will also gain experience in putting into action the concepts learned in this class. May not be used for degree credit with ORGL 4513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4543 Management Analytics
Prerequisites: MGMT 3313.
Description: This course focuses on the application of analytic procedures and theories to the practice of human resource management. Topics include: research methods, psychometrics, descriptive statistics, inferential statistics, correlation, linear prediction, and other methods as deemed appropriate by the instructor. Students will show competence In proper data collection and evaluation techniques, as well as skills necessary to write up and present quantitative findings. May not be used for degree credit with STAT 3013 or PSYC 3214. Previously offered as MGMT 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4573 Managerial Decision Making
Prerequisites: MGMT 3013.
Description: The goal of this course is to help students become more effective decision-makers. It attempts to provide an understanding of decision-making at two levels - the individual and the group. It examines the mechanisms that underlie decision choices, preferences, and judgments, and through this examination, attempt to discover how to improve decision-making processes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4613 International Management (G)
Prerequisites: MGMT 3013 or MGMT 3123.
Description: Survey of the organization, planning and management of international operations of business firms. Exploration of major cultural, economic and political systems and their effects on the management function.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

MGMT 4623 Small Business Management
Prerequisites: MGMT 3013 or MGMT 3123.
Description: Starting and managing a small business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4633 Business Management Consulting
Description: Techniques required for locating business opportunities and evaluating potential, business consultancy, and identifying best practices in industry. Students will explore a typical consulting project from beginning to end.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4650 Leadership Issues
Prerequisites: MGMT 3013.
Description: Examination of leadership issues. Specific topics vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

MGMT 4693 International Human Resource Management
Prerequisites: MGMT 3013 required, MGMT 3133 preferred and LSB 4423 recommended.
Description: A comparison of human resource management policies and practices in the United States with those of major U.S. trading partners. Major human resource functions such as planning, staffing, training, compensation, performance appraisal and labor relations. Human resource policies and practices of China, Japan, Mexico, Canada and other countries.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4713 Negotiation Essentials
Prerequisites: MGMT 3013.
Description: Fundamentals of effective negotiation and dispute resolution practices. Current theory, strategies and tactics. More effective negotiations and how to secure "win-win" solutions. May not be used for degree credit with MGMT 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4743 Advanced Sports Management
Prerequisites: MGMT 3943.
Description: This course builds on the material covered in MGMT 3943. More in-depth coverage is given to selected topics related to managing a sports entity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4750 International Leadership Experience
Description: This course focuses on developing leadership skills through international travel. Students will learn the skills and values used by leaders in other countries. The cultural and business environment faced by leaders in other countries will also be explored. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4793 Research Studies on People and Organizations
Prerequisites: MGMT 3013
Description: Introduction to research studies in contemporary management topics. Students will be exposed to cutting edge research topics and learn how to generate literature searches, write testable hypotheses, operationalize variables, design experimental studies and disseminate research results. The aim of this course is not to make you an expert in a particular topic or area, but to help you determine what designs and approaches would be most appropriate to answer your research questions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4813 Talent Acquisition
Prerequisites: MGMT 3313.
Description: This course focuses on the theories and methods of recruiting and selecting employees; such as, job analysis, human resource planning, recruiting, employment laws, and staffing. Staffing methods include interviews, references, application blanks, cognitive ability, personality tests, and others. Development and critique of a selection plan as well as conduct of a behavioral interview are analyzed. May not be used for degree credit with MGMT 5823.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4843 Strategic Sport Management
Prerequisites: MGMT 3943.
Description: An in-depth analysis and review of revenue generation in the sport industry. Topics will include past and present examples from many different types of sports, both in the United States and internationally. Revenue generation strategies will be discussed in terms of management planning and decision making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4850 Applied Leadership Studies
Prerequisites: MGMT 3013.
Description: Structured internship of field project with supporting academic study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Management

MGMT 4883 Multiple Perspectives in Global Management
Prerequisites: MGMT 3013 or MGMT 3123.
Description: View of how multinational corporations and cross-border business transactions have an impact on countries, cultures, employees, and ecological systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 4943 International Sports Management (G)
Description: A broad overview of the industry of sports around the globe. The historical, political, cultural, and business influences of sport development and management across the world will be discussed. The similarities and differences in organizational and management strategy from various countries, regions, and continents will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management
General Education and other Course Attributes: International Dimension

MGMT 4963 Online and Mobile Gaming Management
Prerequisites: MGMT 3013 and LSB 3213.
Description: Comprehensive overview of the online and mobile gaming industry in the United States. Students will conduct immersive examinations and work collaboratively to understand the key components of managing a business in the highly regulated online and mobile gaming industry. Comparisons of online gaming and brick-and-mortar gaming will be explored. May not be used for degree credit with MGMT 5963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Management

MGMT 5011 Crucial Interactions
Description: Examines methods for increasing positive communication between you and organizational members. Crucial conversations are those conversations that we must have. Ways to increase the free-flow of dialogue to maximize benefit from a crucial conversation are discussed. No credit for students with credit in MGMT 4011.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5021 Managing Professional Relationships
Description: The study of political behaviors and ways to use them effectively in order to be successful in your career. Ways to be prepared for political dynamics at work and what you can do to emerge a winner will be discussed. No credit for students with credit in MGMT 4021.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5031 Leading Organizational Change
Description: An introduction to ways of leading change in an organization to keep pace with the economy and the competition. Building an eight step process for developing, selling and implementing change initiatives. No credit for students with credit in MGMT 4031.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5033 Management of Sustainable Enterprises
Description: Students will be introduced to the social and natural environments and threats to sustainability. The course will cover the external drivers of sustainability as well as internal responses to these pressures. May not be used for degree credit with MGMT 4033. Previously offered as MGMT 5023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5041 Performance Management
Description: A study of the role of a performance management (PM) system in an organization, the basic components of a PM system (standards, measurement, judgment and action), PM methods and performance management interviews and the Balanced Scorecard. No credit for students with credit in MGMT 4041.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5051 Creating Ethical Work Places
Description: An examination of the meaning of ethics in business and human resource management, how ethical, work-related behavior can be maximized, and how ethical organizational cultures facilitate organizational effectiveness. Establishing and critiquing an ethics program and examining your own code of ethics. No credit for students with credit in MGMT 4051.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5061 Managing Confrontations
Description: Crucial confrontations directly address gaps between expectations and performance with a model that ensures individual and team effectiveness. Learn to hold people accountable, master face-to-face performance discussions, motivate without using power, enable without taking over, and move to action. It will improve the quality of your life and of your organization. No credit for students with credit in MGMT 4061.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5073 Management and Ethical Leadership
Description: This course focuses on the application and evaluation of real-life ethical dilemmas using ethical decision-making models. Students will evaluate personal value systems, individual, leadership driven, organizational, and community ethical issues. Students may not take both MGMT 4073 and MGMT 5073 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5083 Corporate and Social Responsibility
Description: Ethics and decision-making in corporations. Students will be exposed to managerial responsibility as well as social responsibility at the corporate level. Students may not take both MGMT 4083 and MGMT 5083 for credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5093 Management of Nonprofit Organizations
Description: Students will be introduced to the role of nonprofits in the economy including management systems, strategy, and the interface between nonprofits, other businesses and various stakeholders. May not be used for degree credit with MGMT 4093.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5113 Individual and Organizational Behavior
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course integrates the fields of management principles and practices with the study of individual and group behavior within organizations. The focus will be upon translation of management and organizational behavior theory to practices that result in organizational effectiveness, efficiency, and human resource development.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5123 Org Design & Research
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Examination of selected topics representing the most current management theories and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5133 Total Rewards
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course covers the development, implementation, and evaluation of compensation and benefits policies/programs. Students will learn the underlying theory as well as complete projects deemed necessary to master this material. Additionally, content will be provided to cover the legal environment, governing total rewards programs, administrative functions, and communication of total rewards programs' goals. May not be used for degree credit with MGMT 4133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5153 Talent Development
Description: A study of training development (T&D) concepts and methods. A study of the theories, principles, methods, and related terminology of T&D and their application to T&D problems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5163 Fundraising for Nonprofit Organizations
Description: Students will be introduced to the theory and practice of raising external funding for social causes. Course may include exposure to external speakers and nonprofit executives. May not be used for degree credit with MGMT 4163.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5213 Seminar in Organizational Behavior
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Current research on group behavior in organizations. Group processes and structural factors affecting the interaction process and intra- and intergroup performance characteristics. Laboratory simulation and team research projects used to pursue advanced topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5223 Seminar in Human Resource Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Principles, theories and methods of human resource management applied to various types of organizations. Human resource functions of planning, staffing, training and development, performance management, compensation and benefits, safety and health, and labor relations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5303 Corporate and Business Strategy
Prerequisites: FIN 5013 or concurrent enrollment.
Description: Key issues in formulating and implementing business and corporate strategies. The orientation of top management and diagnosis of what is critical in complex business situations and realistic solutions to strategic and organizational problems. Course previously offered as MBA 5303.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5313 Project Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: The processes and techniques of managing projects in today's business world. The processes of idea generation, needs analysis, implementation, evaluation, and learning. The techniques of team building and conflict resolution in project management. Course previously offered as MSIS 5333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5323 Teams in Organizations
Prerequisites: MGMT 5113, admission to MBA program or consent of MBA director.
Description: The different ways in which organizations use teams. Many aspects of team development and the skills needed to effectively work in a team environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5453 Technology Commercialization
Prerequisites: Admission to MBA program or consent of MBA director.
Description: The steps involved in evaluating and commercializing new technologies. The necessary steps in moving from prototype to product.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5500 Special Projects in Management
Description: Structured internship, academic project, or field project on a management topic under the direction of a faculty member. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5533 Leadership Challenges
Prerequisites: MGMT 5113, admission to MBA program or consent of MBA director.
Description: Contemporary leadership practices. Leadership as a behavior, not as a position. The challenges of leadership, regardless of position.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5543 Human Resource Analytics
Description: Topics include: research methods, psychometrics, descriptive statistics, inferential statistics, correlation, linear prediction, and other methods as deemed necessary by the instructor. Students will show competence in proper data collection and evaluation techniques, as well as skills necessary to write up and present quantitative findings. Students will apply these concepts practically over the course of the semester and will be expected to develop their own data sets for analysis. Previously offered as MGMT 5523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5553 Management of Technology and Innovation
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Business applications of research, practice, and theory in the management of technology and innovation. To improve the effectiveness by which technologies are developed, implemented, and institutionalized. Emphasizes both management with advanced technologies and strategic management of technology.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5563 Crisis in Organizations
Prerequisites: MGMT 5113, admission to MBA program or consent of the MBA director.
Description: Management and leadership in the face of crisis, from the smallest mom and pop store to the largest multinational corporation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5613 Business Opportunity Identification and Analysis
Prerequisites: Admission to MBA program or consent of MBA director.
Description: The techniques required for locating business opportunities, assessing their feasibility, and evaluating their potential returns.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5643 Sport Management
Description: Designed to give the student an understanding of the basic management skills necessary in the operation of sport organizations. Topics include the social, behavioral, and managerial foundations of sport management, public relations, finance, economics, and budgeting in the sport industry, and managing a sports facility.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5673 Advanced Sport Management
Description: Builds on the material covered in MGMT 5643. More in-depth coverage is given to selected topics related to managing a sports entity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5713 Negotiation and Third-Party Dispute Resolution
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: This course is designed to improve students personal effectiveness and increase their productivity by drawing on the latest research in the psychology of judgment combined with the art of negotiation and decision-making. Students learn to develop effective strategies and systematic approaches to negotiations and influence opportunities. May not be used for degree credit with MGMT 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5743 Intl Negotiations
Prerequisites: Admission to MBA program or consent of MBA director.
Description: Improvement of negotiation skills and learn how cultural and national issues affect negotiations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5750 International Leadership Experience
Description: This course focuses on developing leadership skills through international travel. Students will learn the skills and values used by leaders in other countries. The cultural and business environment faced by leaders in other countries will also be explored. Offered for fixed 3 credit hours, maximum of 6 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5800 Special Topics in Management
Description: Exploration of emerging management topics. Specific topics will vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5823 Talent Acquisition
Description: This course focuses on the process of talent acquisition. Course topics include: human resource planning, position analysis, recruiting practices, selection, employment offers, and verification procedures. Students will study underlying human resource management theory and complete projects deemed necessary for mastery of the material. The course will also cover material related to the development, implementation, and evaluation of selection systems and the legal environment as it pertains to talent acquisition. Related topics will be discussed at the discretion of the instructor. May not be used for degree credit with MGMT 4813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5843 Advanced Strategic Sports Management
Description: Brand management in collegiate sports, the role of collegiate athletics in higher education in the United States, brand management in sports merchandising and entertainment, stadium financing and politics, franchise movement, legal cases, biographical stories, and the role of sports and tourism.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MGMT 5943 Advanced International Sports Management
Description: Historical, political, cultural, and business influences of sport development and management across the world. Emphasis on similarities and differences in organizational and management strategy form various countries, regions and continents.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 5963 Online and Mobile Gaming Management
Description: Comprehensive overview of the online and mobile gaming industry in the United States. Students will conduct immersive examinations and work collaboratively to understand the key components of managing a business in the highly regulated online and mobile gaming industry. Comparisons of online gaming and brick-and-mortar gaming will be explored. May not be used for degree credit with MGMT 4963.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6303 Advanced Human Resource Management
Description: Theory and research focusing on understanding human interactions in organizational contexts. The topics fall within the organizational behavior/human resources (OB/HR) domain and include work performance, counterproductive work behavior, individual differences, recruiting and selection, performance management, turnover, norms, and organizational culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6313 Advanced Organizational Behavior
Prerequisites: Doctoral student standing and consent of instructor.
Description: Theory and research focusing on individual and group behavior in organizations. Both classic and contemporary topics in organizational behavior, including work attitudes, motivation, job design, leadership, group processes, power and politics, and individual differences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6323 Advanced Strategic Management
Prerequisites: Doctoral student standing and consent of instructor.
Description: Research concerning the content of organizational strategy and the process through which it is formulated and implemented.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6333 MESO Organization Studies
Prerequisites: Doctoral student standing and consent of instructor.
Description: Integration of macro- and micro-level concepts and topics across individual, group and organizational levels of analysis. Work and organization design, teams and groups, decision-making, and conflict management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6343 Contemporary Research in Management I
Prerequisites: Doctoral student standing and consent of instructor.
Description: Introduction to the research process in management and building a career as a management scholar.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6353 Research Design
Prerequisites: Doctoral student standing and consent of instructor.
Description: Course examines issues in theory building and development, strategies for collecting behavioral research. At conclusion of course, student should be able to: develop research questions, develop appropriate measures for constructs to be tested, and design research study using various methodologies. Same course as BADM 6353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6363 Advanced Organization Theory
Description: Advanced organization theory in the field of management research. Analysis of key theoretical contributions within the field of management and related disciplines.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6383 Applied Regression and ANOVA
Description: Focus on regression models and associated methods, data analysis, interpretation of results, statistical computation and model building. Students will be introduced to managing data and analysis, simple and multiple linear regression, regression assumptions, the use of categorical variables; residuals and diagnostics; model building/variable selection, and sources of bias including common method variance and endogeneity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6443 Contemporary Research in Management II
Prerequisites: Doctoral student standing and consent of instructor.
Description: Specialized contemporary topics in management for doctoral students.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6453 Advanced Multivariate Regression
Prerequisites: Doctoral student standing and consent of instructor.
Description: Topics include psychometrics, construct validation, factor analysis, moderation, mediation, polynomial regression and response surface analysis, logistic regression, path and panel analyses, and longitudinal analyses. The focus is on developing mastery of data analyses using regression and structural equation modeling software (SEM), interpreting analyses, and developing practical research skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

MGMT 6553 Applied Multivariate and Structural Equation Modeling
Prerequisites: Doctoral student standing and consent of instructor.
Description: Focuses on developing and testing more nuanced hypotheses such as those involving moderated mediation, change, and non-linear effects. In addition, more sophisticated analytical approaches necessary to deal with complex samples, contexts, and measurement will be introduced; such as, structural equation modeling, multilevel modeling, polynomial and spline regression, and logistic regression.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Management

Undergraduate Programs

- Management, BSBA (p. 2807)
- Management: Business Sustainability and Nonprofit Management, BSBA (p. 2809)
- Management: Human Resource Management, BSBA (p. 2812)
- Management: Management Consulting, BSBA (p. 2814)
- Management: Pre-Law, BSBA (p. 2816)
- Management: Sports Management, BSBA (p. 2818)

Graduate Programs

The Department of Management offers work leading to the Master of Business Administration and the Doctor of Philosophy in business administration degrees.

The Master of Business Administration (MBA) Degree

(See "Business Administration (p. 2914).")

Graduate Certificates

Certificate of Business Sustainability & Nonprofit Management

A sustainable enterprise is built around the triple bottom line imperative of protecting and enhancing the current and long-term future of the organization, the quality of life of the people impacted by the organization, and the health of the planet. Relatedly, a growing number of executives in non-profits are recognizing the need to incorporate contemporary management skills into their organizations. This certificate is designed to highlight management practices used in traditional businesses that can also be applied in both sustainability and the nonprofit context and explore the important interface between for-

profit businesses and nonprofit organizations. The certificate offers a range of courses that will examine how to apply business practices in sustainability and nonprofit organizations. Those seeking the graduate certificate will complete 6 hours of required coursework and select another 6 hours of coursework that best fits their situation.

The Doctor of Philosophy Degree

The PhD in business administration program administered through the Department of Management prepares students for a career in university research and teaching. The program is flexible and individually structured to meet the needs and objectives of the candidate. Emphasis is placed on understanding the psychological, social and economic foundations of business administration and developing the analytical skills to publish research in the management specialties of organizational behavior, human resources and strategic management.

PhD students in management concentrate in either organizational behavior or strategic management and pursue two minors. At least one of the minor areas must be taken in the Spears School of Business. As support for the major and minor fields of study, each student is required to attain graduate-level competence in quantitative research methods. As prerequisites to the program, all candidates must have completed appropriate basic courses in calculus and statistics. In addition, candidates are expected to have a basic competence in the major functional areas of business—accounting, finance, management, management information systems, management science and marketing. Competence in the functional areas is usually demonstrated through the completion of appropriate graduate courses in each area through a program accredited by the Association to Advance Collegiate Schools of Business (AACSB International).

Competence in planning and executing research must be demonstrated in a dissertation. In addition, each candidate must pass a series of comprehensive qualifying examinations, both written and oral, and a separate, final oral examination of the dissertation itself. To enhance teaching skills, all PhD students in residence are required to teach on a quarter-time or half-time basis for at least one semester while earning the degree. Outstanding students with master's degrees in any field of study are encouraged to apply. The application for admission to the program is evaluated on the basis of the following:

1. undergraduate and graduate grade-point averages,
2. the score on the Graduate Management Admissions Test,
3. a two- or three-page statement describing research interests,
4. three letters of recommendation,
5. evidence of research potential, and
6. a personal interview when feasible.

It is the responsibility of each applicant to ensure that all material related to the above criteria is received by the department.

Certificates

- Sustainable Business Management, UCRT (p. 2821)

Minors

- Business Sustainability and Nonprofit Management (BSNM), Minor (p. 2804)
- Human Resource Management (HRM), Minor (p. 2805)
- Management (MGMT), Minor (p. 2806)
- Sports Management (SPMG), Minor (p. 2820)

Faculty

Bryan Edwards, PhD—Professor and Head
Professors: Federico Aime, PhD; Nikolaos Dimotakis, PhD; Geoffrey P. Pivateau, JD
Associate Professors: Raj Basu, PhD; W. Matthew Bowler, PhD; Lindsey Greco, PhD; Jeanine Porck, PhD; Andrew L. Urich, JD; Alexis Washington, PhD; James M. Pappas, PhD
Assistant Professors: Christopher Dinkel, PhD; Rosa Kim, PhD; Bandita Deka Kalita; Elizabeth Klock, PhD; Daniel Milner, PhD; Eunkwang Seo, PhD; Stefania Fusco, PhD; Regina Nerger, PhD
Professors of Professional Practice: Jason B. Aamodt, JD; Jennifer Coonce; Bryan Finch, PhD; Aaron Light; Sumathi Pearl, EDD; Stephanie Phipps, PhD; Stephanie Royce, PhD; Tara Fitzgerald Urich, JD
Other Faculty: Marla Mahar; MaKenzie Norman; Kristina Schaap; Paul Sims

Business Sustainability and Nonprofit Management (BSNM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 16

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MGMT 3011	Business, Government and Society	1
MGMT 3013	Fundamentals of Management (S)	3
MGMT 4033	Management of Sustainable Enterprises	3
MGMT 4083	Corporate and Social Responsibility	3
Select 6 hours of the following:		6
MGMT 4403	Environmental Sustainability for Business	
MGMT 4423	Environmental Problem Analysis for Business	
MGMT 4453	Environmental Management Practicum for Business	
MGMT 4463	Industrial Ecology for Business	
MGMT 4493	Applied Environmental Standards for Business Managers	
ECON 3903	Economics of the Environment	
ECON 4113	Energy Economics: Traditional and Renewable Energy Markets	
EEE 4403	Social Entrepreneurship	
MGMT 4093	Management of Nonprofit Organizations	
MKTG 3333	Nonprofit Marketing	
MKTG 4443	Social Issues in the Marketing Environment (D)	
HTM 4183	Sustainable Tourism and Geography	
Total Hours		**16**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Human Resource Management (HRM), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 16

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MGMT 3011	Business, Government and Society	1
MGMT 3013	Fundamentals of Management (S)	3
MGMT 3313	Human Resource Management	3
Choose 9 hours from the following:		9
MGMT 4133	Total Rewards	
MGMT 4153	Talent Development	
MGMT 4543	Management Analytics	
MGMT 4813	Talent Acquisition	
Total Hours		**16**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Management (MGMT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 16

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MGMT 3011	Business, Government and Society	1
MGMT 3013	Fundamentals of Management (S)	3
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
Select 3 hours of any upper division MGMT		3
Total Hours		**16**

Other Requirements

- 10 of the 16 hours must be taken at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 64 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Major Requirements		
A GPA of 2.00 is required in these 34 hours of Management Major Requirements		
17 of these 34 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
Select 12 hours upper-division MGMT courses		12
Select one of the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
BCOM 3223	Oral Communication	3
or SPCH 3723	Business and Professional Communication	
Select 6 hours from upper-division business courses		6
Hours Subtotal		**64**
Electives		
Select 13 hours [3]		13
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**13**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
3 hours of electives		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
MGMT 3011	Business, Government and Society	1
3 hours of upper division MGMT		3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MGMT 3313	Human Resource Management	3
BCOM 3113	Written Communication	3
3 hours of upper division MGMT		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MSIS 3223	Principles of Data Analytics	3
MGMT 4073 or MGMT 4083	Management and Ethical Leadership or Corporate and Social Responsibility	3
'LN' designated course		4
'D' designated course		3
	Hours	**16**
Senior		
Fall		
3 hours of upper division MGMT		3
3 hours of upper division MGMT		3
3 hours of upper division business		3
3 hours of electives		3
1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Management: Business Sustainability and Nonprofit Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 64 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Business Sustainability and Nonprofit Management Major Requirements		
A GPA of 2.00 is required in these 34 hours of Business Sustainability and Nonprofit Major		
20 of these 34 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4033	Management of Sustainable Enterprises	3
or MGMT 4083	Corporate and Social Responsibility	
MGMT 4073	Management and Ethical Leadership	3
MGMT 4093	Management of Nonprofit Organizations	3
or MGMT 4163	Fundraising for Nonprofit Organizations	
Select 3 hours from the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
Select 3 hours from the following:		3
BCOM 3223	Oral Communication	
SPCH 3723	Business and Professional Communication	
Select 12 hours from the following:		12
ECON 3903	Economics of the Environment	
MGMT 3963	Social Issues in Sports Management	
EEE 4403	Social Entrepreneurship	
HTM 4183	Sustainable Tourism and Geography	
MGMT 4083	Corporate and Social Responsibility	
MGMT 4423	Environmental Problem Analysis for Business	
MGMT 4213	The Fair Workplace (D)	
MGMT 4233	Legal and Ethical Issues in a Diverse Workplace	
MGMT 4453	Environmental Management Practicum for Business	
MGMT 4063	Management of Corporate Philanthropy	
MGMT 4463	Industrial Ecology for Business	
MGMT 4163	Fundraising for Nonprofit Organizations	
MGMT 4493	Applied Environmental Standards for Business Managers	

MGMT 4613	International Management (G)	
MKTG 3333	Nonprofit Marketing	
MKTG 4443	Social Issues in the Marketing Environment (D)	
Hours Subtotal		**64**
Electives		
Select 13 hours [3]		13
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**13**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
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Example Plan of Study

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Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
'D' designated course		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
'LN' designated course		4
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MGMT 3313	Human Resource Management	3
BCOM 3113	Written Communication	3
3 hours from 12 hour list in major		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MSIS 3223	Principles of Data Analytics	3
MGMT 4033 or MGMT 4083	Management of Sustainable Enterprises or Corporate and Social Responsibility	3
MGMT 3011	Business, Government and Society	1
3 hours of electives		3
MGMT 4093 or MGMT 4163	Management of Nonprofit Organizations or Fundraising for Nonprofit Organizations	3
	Hours	**16**
Senior		
Fall		
MGMT 4073	Management and Ethical Leadership	3
3 hours from 12 hour list in major		3
3 hours from 12 hour list in major		3
3 hours of electives		3

1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours from 12 hour list in major		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Management: Human Resource Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 64 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Human Resource Management Major Requirements		
A GPA of 2.20 is required in these 34 hours of Human Resource Management Major Requirements		
17 of these 34 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
MGMT 4133	Total Rewards	3
or MGMT 4153	Talent Development	
MGMT 4813	Talent Acquisition	3
Select one of the following:		3
MGMT 4543	Management Analytics	
STAT 3013	Intermediate Statistical Analysis	
PSYC 3214	Statistical Methods in Psychology	
Select one of the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
BCOM 3223	Oral Communication	3
or SPCH 3723	Business and Professional Communication	
Select 9 hours from the following:		9
LSB 4423	Employment Law (D)	
MGMT 4133	Total Rewards	
MGMT 4153	Talent Development	
MGMT 4213	The Fair Workplace (D)	
MGMT 4713	Negotiation Essentials	
Hours Subtotal		**64**
Electives		
Select 13 hours [3]		13
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		

Hours Subtotal	**13**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
'D' designated course		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
MKTG 3213	Marketing (S)	3
MGMT 3313	Human Resource Management	3
FIN 3113	Principles of Finance	3
MGMT 3011	Business, Government and Society	1
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MGMT 4543	Management Analytics	3
BCOM 3113	Written Communication	3
3 hours from 9 hour list in major		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MGMT 4133 or MGMT 4153	Total Rewards or Talent Development	3
MSIS 3223	Principles of Data Analytics	3
'LN' designated course		4
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MGMT 4073 or MGMT 4083	Management and Ethical Leadership or Corporate and Social Responsibility	3
MGMT 4813	Talent Acquisition	3
3 hours from 9 hour list in major		3
3 hours of electives		3
1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours from 9 hour list in major		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Management: Management Consulting, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 64 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Consulting Major Requirements		
A GPA of 2.00 is required in these 34 hours of Management Consulting Major Requirements		
17 of these 34 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
Select 6 hours from upper-division business courses		6
Select one of the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
BCOM 3223	Oral Communication	3
or SPCH 3723	Business and Professional Communication	
Option Requirements		
MGMT 4633	Business Management Consulting	3
MGMT 4543	Management Analytics	3
Select 6 hours of the following:		6
MGMT 4033	Management of Sustainable Enterprises	
MGMT 4133	Total Rewards	
MGMT 4413	Change Management	
MGMT 4533	Leadership Dynamics	
MGMT 4623	Small Business Management	
MGMT 4713	Negotiation Essentials	
EEE 4313	Emerging Enterprise Consulting	
EEE 4703	Project Management for Entrepreneurship	
FIN 4343	Valuation and Financial Modeling	
FIN 4843	Risk Management	
MKTG 3223	Supply Chain Management	
Hours Subtotal		**64**
Electives		
Select 13 hours [3]		13

May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.	
Hours Subtotal	**13**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
'D' designated course		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
MGMT 3011	Business, Government and Society	1
MGMT 3313	Human Resource Management	3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
BCOM 3113	Written Communication	3
MGMT 4633	Business Management Consulting	3
3 hours from 6 hour list in major		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MSIS 3223	Principles of Data Analytics	3
MGMT 4073 or MGMT 4083	Management and Ethical Leadership or Corporate and Social Responsibility	3
'LN' designated course		4
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MGMT 4543	Management Analytics	3
3 hours from 6 hour list in major		3
3 hours of upper division business		3
3 hours of electives		3
1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Management: Pre-Law, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 64 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Pre-Law Major Requirements		
A GPA of 2.00 is required in these 34 hours of Management Pre-Law Major Requirements		
17 of these 34 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
Select 6 hours from upper-division business courses		6
Select one of the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
BCOM 3223	Oral Communication	3
or SPCH 3723	Business and Professional Communication	
Select 12 hours of the following:		12
LSB 4423	Employment Law (D)	
LSB 4633	Legal Aspects of International Business Transactions (G)	
LSB 4523	Law of Real Property	
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	
MGMT 3963	Social Issues in Sports Management	
HTM 4103	Legal and Ethical Issues in Hospitality, Tourism, & Gaming	
POLS 3983	Courts and Judicial Process (S)	
POLS 4963	U.S. Constitution: Civil Rights and Civil Liberties	
Hours Subtotal		**64**
Electives		
Select 13 hours [3]		13
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		

Hours Subtotal	**13**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
'H' designated course		3
'D' designated course		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
MGMT 3011	Business, Government and Society	1
3 hours from 12 hour list in major		3
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MGMT 3313	Human Resource Management	3
BCOM 3113	Written Communication	3
3 hours from 12 hour list in major		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MSIS 3223	Principles of Data Analytics	3
MGMT 4073 or MGMT 4083	Management and Ethical Leadership or Corporate and Social Responsibility	3
'LN' designated course		4
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
3 hours from 12 hour list in major		3
3 hours from 12 hour list in major		3
3 hours of upper division business		3
3 hours of electives		3
1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Management: Sports Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 67 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Sports Management Major Requirements		
A GPA of 2.00 is required in these 37 hours of Sports Management Major Requirements		
19 of these 37 hours must be in residence at OSU		
MGMT 3011	Business, Government and Society	1
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3313	Human Resource Management	3
MGMT 3943	Sports Management	3
MGMT 4073	Management and Ethical Leadership	3
or MGMT 4083	Corporate and Social Responsibility	
MGMT 4743	Advanced Sports Management	3
MGMT 4943	International Sports Management (G)	3
Select 3 hours upper-division MGMT courses		3
Select one of the following:		3
BCOM 3113	Written Communication	
BCOM 3443	Business Communication for International Students	
ENGL 3323	Technical Writing	
BCOM 3223	Oral Communication	3
or SPCH 3723	Business and Professional Communication	
Select 9 hours of the following:		9
ECON 3513	Labor Economics	
ECON 3723	The Economics of Sport	
LSB 4423	Employment Law (D)	
MGMT 4843	Strategic Sport Management	
MKTG 3323	Consumer and Market Behavior	
MKTG 3433	Promotional Strategy	
MKTG 3473	Professional Selling	
MKTG 3713	Sports Marketing	
MSIS 4943	Sports Management Analytics	
Hours Subtotal		**67**
Electives		
Select 10 hours [3]		10
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		

Hours Subtotal	**10**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MGMT 3123	Managing Behavior and Organizations	3
MGMT 3943	Sports Management	3
FIN 3113	Principles of Finance	3
MGMT 3313	Human Resource Management	3
MGMT 3011	Business, Government and Society	1
'H' designated course		3
	Hours	**16**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MGMT 4743	Advanced Sports Management	3
BCOM 3113	Written Communication	3
3 hours from 9 hour list in major		3
	Hours	**16**
Spring		
BCOM 3223	Oral Communication	3
MGMT 4943	International Sports Management (G)	3
MSIS 3223	Principles of Data Analytics	3
'LN' designated course		4
'D' designated course		3
	Hours	**16**
Senior		
Fall		
MGMT 4073 or MGMT 4083	Management and Ethical Leadership or Corporate and Social Responsibility	3
3 hours upper division MGMT		3
3 hours from 9 hour list in major		3
3 hours of electives		3
1 hour of electives		1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours from 9 hour list in major		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Sports Management (SPMG), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 16

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MGMT 3011	Business, Government and Society	1
MGMT 3013	Fundamentals of Management (S)	3
MGMT 3943	Sports Management	3
Select 9 hours of the following:		9
MGMT 3963	Social Issues in Sports Management	
MGMT 4743	Advanced Sports Management	
MGMT 4843	Strategic Sport Management	
MGMT 4943	International Sports Management (I)	
Total Hours		**16**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Sustainable Business Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 24

Code	Title	Hours
MGMT 4033	Management of Sustainable Enterprises	3
MGMT 4083	Corporate and Social Responsibility	3
MGMT 4403	Environmental Sustainability for Business	3
MGMT 4423	Environmental Problem Analysis for Business	3
Select 4 of the following courses:		12
AGEC 3503	Natural Resource Economics	
AGEC 4503	Environmental Economics and Resource Development	
ARCH 4233	Sustainable Design in Architecture	
BIOL 3034	General Ecology	
PBIO 3253	Environment and Society (N)	
ECON 3903	Economics of the Environment	
ENVR 3113	Environmental Sampling and Analysis	
EEE 4403	Social Entrepreneurship	
HTM 4183	Sustainable Tourism and Geography	
MGMT 4453	Environmental Management Practicum for Business	
MGMT 4463	Industrial Ecology for Business	
MGMT 4493	Applied Environmental Standards for Business Managers	
MKTG 4443	Social Issues in the Marketing Environment (D)	
NREM 3013	Applied Ecology and Conservation	
Special courses: Students may receive 3-6 credits from Sustainability study in Costa Rica at Universidad de Earth and other Travel Abroad Sustainability courses (as approved by faculty).		
Total Hours		**24**

For detailed and latest information on this program, please contact Dr. James Pappas, Spears School of Business, 449 Business, 405-744-7729.

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Management Science and Information Systems

Emerging technologies, the use of data analytics and artificial intelligence, and the critical need for understanding cybersecurity principles continues to dramatically alter our world.

The Department of Management Science and Information Systems (MSIS) is a national leader in providing high quality education in the areas of information systems, data science/data analytics, and cybersecurity. Our graduates are prepared for a variety of careers that regularly appear in the Top 20 fastest growing occupations as forecasted by the Bureau of Labor Statistics. Best of all – these skills and aptitudes prepare our graduates for the future workplace where technology, data science and cybersecurity will play even more important roles.

Our degrees are for problem solvers – those who want to learn how to use technology, data, artificial intelligence, machine learning, operations research, and other approaches to make processes, companies, and the world more effective and efficient.

The Department of Management Science and Information Systems offers two undergraduate majors – management information systems (MIS), and Data Analytics (DA). The MIS undergraduate degree has two possible options for students to specialize – one option in data science and another option in information assurance (IA). Note that information assurance is a National Security Agency (NSA) term for cybersecurity.

Additionally, the MSIS Department also offers graduate studies leading to master's degrees in management information systems (MIS), and a PhD degree in business administration with an option in MIS.

Management Information Systems (MIS)

The MIS degree focuses on the business applications of information systems. This includes emphasizing necessary skills required in the analysis, development, evaluation and implementation of various information and data-driven technologies critical for today's global organizations. The integration of information technology throughout all aspects of business coupled with the critical need for responsive information systems has created a strong demand for graduates in this area.

Beyond general education requirements and core business classes, the MIS major will take specialized courses in systems analysis and design, web development, database design and management, data science techniques and applications, data communications and cybersecurity, project management, among others.

The Data Science option for the MIS degree provides additional depth in quantitative tools that are critical in today's data-driven organization. This includes classes in visualization and descriptive, predictive, and prescriptive analytics.

The Information Assurance option for the MIS degree takes advantage of OSU's long-standing relationship with the NSA in providing hands-on classes in technical and managerial issues related to cybersecurity and information assurance.

Data Analytics (DA)

The Data Analytics degree provides an in-depth focus on the data related skills and analytic competencies needed to be a data analyst, a business intelligence analyst and/or a data scientist. It is a much more specific degree and much more in-depth coverage of data and analytics than the MIS degree with a Data Science option.

Beyond general education requirements and core business classes, the Data Analytics major will take specialized courses in database design and management, data wrangling, visualization, and a variety of sophisticated data science techniques and applications including applied artificial intelligence and machine learning, among other electives that can come from other areas of analytics including supply chain analytics, marketing analytics, etc.

Undergraduate Certificates

To support students who are not majoring in MIS or Data Analytics but who want to gain a foundational set of expertise in various topics, the MSIS Department offers a series of certificates that range from 16 to 18 hours in length.

Cyber Systems – foundational cybersecurity classes.

Business Analytics – starting point for those interested in data analytics competencies.

Data Systems – the 'data wrangling' expertise portion of the data analytics degree.

Information Systems Development – Core competencies needed to build information systems.

Supply Chain Management – cross disciplinary courses related to another emerging area of importance in business, managing the supply chain.

Courses

MSIS 2103 Business Data Science Technologies
Description: The class focuses on problem solving with data analytics tools and technologies that are key to organization decision making. Emphasis is placed on decision making with spreadsheets and databases. Key information systems and cybersecurity concepts are also studied.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 2203 Computer Programming for Business
Description: Problem solving and computer programming for business. Fundamental principles and constructs of programming. Fundamentals of a current applied business programming language.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 2233 Business Analytics Fundamentals (Q)
Prerequisites: 3 hours of MATH or STAT with "A" designation.
Description: Introduces the basic concepts of business and data analytics utilizing spreadsheets and visualization software. Topics will include a review of necessary business quantitative skills, applicable descriptive analytics measures, probabilistic decision-making and how to tell an "effective story" through the use of data and analytics tools. May not be used for degree credit with CPS 4213. Previously offered as BADM 2233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
General Education and other Course Attributes: Analytical & Quant Thought

MSIS 3023 Technology, Diversity and Entrepreneurship
Description: A study of technology, diversity and entrepreneurship. The use of technology as a research tool to study diversity and the opportunities available to diverse groups through entrepreneurship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3103 End User Database Systems Design and Management
Prerequisites: Non-MIS or CS or Business Analytics or Data Analytics or Accounting Systems majors only.
Description: Intended for less technically oriented students who wish to gain an understanding of relational databases. Principles and techniques of logical database design and related database concepts. Analysis, design and implementation of a database system using a relational DBMS. No credit for students in the MIS, Business Analytics, Data Analytics or Accounting Systems majors. Students desiring a more technical approach should take MSIS 3333 instead.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3153 International Telecommunications Business Environment
Description: This course concentrates on understanding the implications and challenges of utilizing telecommunications networks in today's global business environment. Emphasis will be placed on identifying the major players in the global information infrastructure, standards setting bodies and procedures, and the various regulatory processes encountered. Students will research the telecommunications industry in other countries and develop comprehensive written reports. Course previously offered as TCOM 3153.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3163 Web Design Essentials
Description: Web design principles including UX/UI, HTML/CSS, scripting, database management, and other relevant topics using the latest professional tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3203 Advanced Computer Programming for Business
Prerequisites: MSIS 2203.
Description: Advanced programming features are examined with an emphasis on the development of computer programs for business applications. Previously offered as MSIS 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3223 Principles of Data Analytics
Prerequisites: MSIS 2103 and (MSIS 2233 or MATH 2103 or higher).
Description: Problem solving with descriptive, predictive and prescriptive analytics in a business context using spreadsheets and other analytic tools. Techniques include forecasting, optimization, location analysis, decision analysis, inventory management, among others. May not be used for degree credit with CPS 4213. Previously offered as MGMT 3223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3233 Management Science - Prescriptive Analytics
Prerequisites: MSIS 3223.
Description: Prescriptive analytics applied to resource allocation and operational problems encountered in accounting, economics, finance, management and marketing. Linear programming, goal programming, integer programming, and network models.. Previously offered as MGMT 3233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3243 Descriptive Analytics
Prerequisites: MSIS 3223.
Description: Application of descriptive analytics, especially from a "big data" perspective. Previously offered as MGMT 3243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3253 Supply Chain Operations and Analytics
Prerequisites: MSIS 3223.
Description: Practical tools that support supply chain operations using relevant data and analytic models.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3293 Business Analytics Programming
Prerequisites: MSIS 2103 or MSIS 2233.
Description: Fundamental principles of programming for business analytics, with a focus on data wrangling concepts and tools.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3333 Database Systems Development
Description: This class is intended for those technically oriented students earning a MIS, DA, ACCT, MATH, STATS, or CS degree and/or taking classes to fulfill Data Science options or other certificate programs that require a data base course. Database design principles focusing on database modeling with hands-on creation, population and querying of transactional databases using SQL. May not be used for degree credit with MSIS 5643. Course previously offered as MSIS 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3363 Web Application Development
Prerequisites: MSIS 2203 and MSIS 3333.
Description: Develop web applications involving database development, user interface design, and asynchronous client-side programming.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3393 Advanced Spreadsheet Modeling and Programming
Prerequisites: MSIS 2103 and permission of instructor.
Description: This class provides students with advanced spreadsheet skills, including the ability to formulate math programming models, simulations, risk analysis, and other business decision-making tools. The class will also provide students with an introduction to spreadsheet programming (VB, macros, etc.), building decision support systems in spreadsheets, etc.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 3931 Diversity Impacts in Information Systems (D)
Description: Critical analysis of the impact of technology on socially-defined classifications such as race, ethnicity, age, gender, sexuality, and disability; and how those groups affect technology industries. Through reading, observation, discussion, and writing; students will have their own perceptions challenged to better understand technology interaction through and with diverse populations, and how relationships between those groups may be improved or worsened as a result of mediated communications.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
General Education and other Course Attributes: Diversity

MSIS 4003 Systems Analysis and Design
Prerequisites: MSIS 3363.
Description: This course covers the core concepts and skills for developing software in an organizational context, including agile software development techniques, as well as the socio-cultural aspects of the systems analysis and design process. May not be used for degree credit with MSIS 5653. Course previously offered as MSIS 3303 and MGMT 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4010 Applied Analytics and Information System Studies
Prerequisites: Departmental permission.
Description: Structured internship, field study or independent project with supporting academic study. Intended primarily for students pursuing a Data Analytics or MIS degree, or related areas or certificate programs. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys

MSIS 4020 Applications Software Tools and Techniques
Prerequisites: Permission of instructor and/or department.
Description: Hands-on experience with selected software-based tool or programming languages such as SAP, SQL, PERT/CPM, etc. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4033 Information Systems Project Management and Communication
Description: This class discusses the multi-faceted dimensions critical to successfully leading information systems projects. Topics will include behavioral, strategic, technical, quantitative and communications issues faced by those directing projects. May not be used for degree credit with MSIS 5033. Course previously offered as MSIS 3033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4053 Supply Chain Security and Risk Analysis
Description: This course examines the threats and vulnerabilities to an organization's supply chain and identifying controls that can be used to mitigate such threats. Physical and cyber will be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4063 STUDY ABROAD: Contemporary Global Impacts in IT, Analytics and Cybersecurity
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S. An increased focus will be placed on IT, Analytics, Cybersecurity and Supply Chain Management issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4111 Technology Success Skills Application
Prerequisites: Junior or senior standing.
Description: Advanced professional development and networking for information systems and analytics students. Intended primarily for Data Analytics and MIS majors, as well as those outside the department (and college) pursuing certificates in related areas such as Data Systems, Supply Chain Management, and other areas.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4123 Cybersecurity Systems Management
Description: A broad investigation of the elements of cybersecurity with an emphasis on the management impact and risk assessment and mitigation for all types of information and privacy threats to corporations and businesses. May not be used for degree credit with MSIS 5213. Previously offered as MSIS 3123, MSIS 4223 and MGMT 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4133 Information Technologies for Electronic Commerce
Prerequisites: MSIS 4003.
Description: The Internet and web-based technologies, systems and applications that allow organizations to overcome the barriers of time and distance for conducting commerce. Scripting and markup languages, web programming tools, and the connectivity technologies for designing and developing electronic commerce and systems.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4153 Supply Chain Systems and Technologies
Description: This course covers the underpinning technologies, systems, platforms and models that enable the design, management and control of digitally connected supply chains.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4233 Applied Ethical Hacking
Prerequisites: MSIS 4123, MSIS 4523.
Description: Technical aspects of attacking and guarding against (cybersecurity) attacks in information systems. Course content includes ethical hacking concepts and defense protection topics. May not be used for degree credit with MSIS 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4243 Digital Forensics and Incident Response
Prerequisites: MSIS 4123.
Description: Procedures for identification, preservation and extraction of electronic evidence. Provides an understanding of underlying theory and strategy of investigations. May not be used for degree credit with MSIS 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4253 System Certification and Accreditation
Prerequisites: MSIS 4123.
Description: Introduction to the certification and accreditation process. Risk analysis, system security analysis, and other topics. Previously offered as MGMT 4253. May not be used for degree credit with MSIS 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4263 Business Intelligence and Predictive Analytics
Description: Applied knowledge management tools and techniques for organizational decision support. Predictive analytics, machine learning, and other emerging techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4273 Legal and Ethical Issues in Information Systems
Description: Reviews the current status of information systems law in regard to rights of privacy, freedom of information, confidentiality, work product protection, copyright, security, legal liability, ethical issues, and a range of additional legal and information policy topics. Investigates the legal difficulties that technological innovations are causing in all of these areas. Legal options for dealing with the conflicts caused by technological change and likely adaptations of the law over time in response to societal changes will be explored. May not be used for degree credit with MSIS 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4283 Operating Systems for Information Assurance
Description: Operating Systems (OS) concepts for security. Vulnerabilities and threats. Security models. User authentication. Smart cards: architectures, technologies, application environments, and case studies. System availability. Software and data integrity. Auditing. Sensitive data confidentiality. Access control. Secure OS development: design principles, design methodologies, security certification. Case studies: Unix/Linus, MS/Windows XP/2000.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4333 Data Wrangling
Prerequisites: MSIS 3293 and MSIS 3333.
Description: Foundations of data wrangling, specifically the skills needed to load, clean, transform, and structure data from diverse sources, in both traditional and cloud-based data warehousing architectures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4363 Advanced Application Development
Prerequisites: MSIS 4003 and MSIS 3363.
Description: Managing the software development pipeline. Topics include creating build/release pipelines for continuous integration/deployment, containerizing applications and emerging DevOps topics.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4373 Advanced Topics in Management Information Systems
Prerequisites: Senior standing and consent of instructor.
Description: Current and emerging advanced topics in the field of management information systems. Advanced network management, advanced electronic commerce issues, international management information systems and legal and regulatory issues in telecommunications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4443 Advanced Topics in Analytics and Artificial Intelligence
Description: Emerging topics in analytics, including simulation, business dynamics, blockchain/cryptocurrency, artificial intelligence, supply chain, among others. Previously offered as MGMT 4443.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4523 Infrastructure Development
Description: Broad coverage of network types and protocols used to drive the diverse voice, video and data needs of today's business. Network vocabulary and the understanding of how telecommunications components function are stressed. May not be used for degree credit with MSIS 5203. Previously offered as MGMT 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4623 Data Science Programming
Prerequisites: MSIS 3293
Description: Programming concepts and applications for data science, analytics, and business intelligence. May not be used for degree credit with MSIS 5193.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4673 Data Visualization
Description: This course will provide an understanding of the role of descriptive analytics, visualization, and dashboarding in direct support of managerial decision making (business intelligence and analytics). May not be used for degree credit with MSIS 5673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4713 Scripting Essentials
Description: Application of scripting languages (e.g. BASH, PowerShell, Python) for general business, data and information assurance solutions. May not be used for degree credit with MSIS 5713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 4943 Sports Management Analytics
Prerequisites: MSIS 2233
Description: Useful decision tools such as analytics, visualization, optimization, decision analysis, forecasting and simulation are used to address decisions faced by sports administrators and decisions made during sporting contests. Current 'hot' issues in sports decision-making will also be examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5020 Advanced Applications Software Tools
Description: Advanced hands-on experience with selected software-based tool or programming languages such SAP, SQL, PERT/CPM, etc. For graduate credit only. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5033 Information Systems Project Management
Prerequisites: Graduate standing.
Description: This class covers the important multi-faceted dimensions of directing and leading information systems projects. Topics will include behavioral, strategic, technical and quantitative issues faced by information system project teams. May not be used for degree credit with MSIS 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5123 Enterprise Resource Planning
Prerequisites: Admission to a graduate program.
Description: Challenges of data integration and redesign of processes in organizations. Introduction to enterprise resource planning (ERP) concepts, software, and practices. ERP issues architecture, planning, design, implementation, and project management. Extensions of ERP Technologies for managing supply chains and customer relationships. Emerging trends.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5133 Advanced Web Based Application Development
Prerequisites: Graduate standing and MSIS 5643 or equivalent.
Description: Development of n-tier web-based applications, including concepts and technologies relating to the presentation, business, and data tiers. Technologies include (but are not limited to) browser and other client programming, server-side programming, data tier programming and XML technologies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5193 Programming for Data Science and Analytics I
Prerequisites: Graduate standing and computer programming proficiency, or consent of instructor.
Description: Programming concepts and applications for data science, analytics, and business intelligence covering data manipulation, data derivation, web content mining, visualization, text mining, and other topics. May not be used for degree credit with MSIS 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5203 Advanced Infrastructure Development
Description: Broad coverage of the underlying infrastructure necessary for information systems operation. Understanding and experience with essential network connectivity as well as server and service architecture to support information systems is emphasized. May not be used for degree credit with MSIS 4523.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5213 Cybersecurity Systems Management
Description: A broad investigation of the elements of cybersecurity with an emphasis on the management impact and risk assessment and mitigation for all types of information and privacy threats to businesses. Course previously offered as TCOM 5223. May not be used for degree credit with MSIS 4123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5223 Programming for Data Science and Analytics II
Prerequisites: MSIS 5193 and graduate standing.
Description: Programming concepts and applications for data science, analytics, and business intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5233 Advanced Applied Ethical Hacking
Prerequisites: MSIS 5213 and MSIS 5203.
Description: Advanced technical aspects of ethical hacking concepts and defense protection strategies for information systems. May not be used for degree credit with MSIS 4233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour and Business Graduate Program fee of $6 per credit hour apply.

MSIS 5243 Information Technology Forensics and Incident Response
Description: Review of systems for vulnerabilities and analysis of systems that have been breached including incident response. May not be used for degree credit with MSIS 4243. Course previously offered as TCOM 5243.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5253 Advanced System Certification and Accreditation
Prerequisites: MSIS 5213.
Description: Preparing information systems for operational status requires significant planning and sound execution. Covers the key components of the certification and accreditation process, including risk assessment and mitigation, system security analysis, controls and system documentation. May not be used for degree credit with MSIS 4253. Course previously offered as TCOM 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5263 Information Assurance Offense
Prerequisites: MSIS 5233 and graduate coordinator permission.
Description: Learning successful computer attacks so as to recognize and apply appropriate security controls for system vulnerabilities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5273 Legal and Ethical Issues in Information Technology
Description: This course reviews the current status of information systems law in regard to rights of privacy, freedom of information, confidentiality, work product protection, copyright, security, legal liability, ethical issues and a range of additional legal and information policy topics. May not be used for degree credit with MSIS 4273. Course previously offered as TCOM 5273.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5283 Secure Information Systems Administration
Prerequisites: MSIS 5213 and MSIS 5773 and graduate coordinator permission.
Description: Introduction to basic concepts and technologies relevant to secure information systems administration. The topics covered in this course include, but are not limited to, operating system (OS) hardening, securing servers, network protection, and various access control mechanisms.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5293 Information Assurance Capstone
Prerequisites: Final semester in program; graduate coordinator permission.
Description: This capstone course takes a strategic view of corporate information assurance. The goal is to provide an overarching view of an information assurance program to include physical, personnel, operational, and cyber security, including the underlying legislation and Federal and state regulations that drive corporate IA programs and policy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5303 Prescriptive Analytics
Prerequisites: Admission to a SSB graduate program.
Description: Application of prescriptive analytic techniques to business problems. Some descriptive analytics may also be covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5313 Supply Chain Analytics
Prerequisites: Graduate standing.
Description: Introduction to supply chain analytics including forecasting, scheduling, inventory, distribution, site selection, and other analytical tools and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5393 Advanced Spreadsheet Modeling
Description: Advanced spreadsheet modeling skills critical to business problem solving. Presentation, analysis, solution and communication facets are emphasized.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5410 Advanced Topics in Information Assurance
Prerequisites: Graduate standing and consent of program director.
Description: Advanced topics in information assurance and security. Course previously offered as TCOM 5410. Offered for fixed credit, 3 credit hours.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5413 Advanced Data Science Applications
Prerequisites: Graduate standing and permission of instructor.
Description: Special topics with an emphasis on emerging tools and techniques in the broad field of data science.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5503 Statistics for Data Science
Prerequisites: Graduate standing.
Description: Data Science focuses on the analysis of large secondary data sets. This course focuses on understanding and applying statistical models and techniques to obtain useful information from large data sets. These techniques are part of supervised statistical machine learning.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour and Business Graduate Program fee of $6 per credit hour apply.

MSIS 5600 Special Projects in Business Information Systems
Prerequisites: Consent of MS in MIS director.
Description: Study of advanced topics not covered directly in other classes or directed study under the supervision of a faculty member. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Contact: 1-12 Other: 1-12
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5613 Advanced Supply Chain Analytics
Prerequisites: MSIS 5313.
Description: Advanced tools and analytic techniques used in the supply chain field.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5623 Information and Network Technology Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Major principles and impact of information technology from a manager's perspective in relation to the operation and success of businesses in today's global digital economy. Topics include the Internet, networks and wireless systems, database management systems, decision support systems, social media and e-business applications.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5633 Predictive Analytics Technologies
Prerequisites: Graduate standing.
Description: A comprehensive analysis of contemporary business intelligence tools and techniques used in managerial decision-making, including decision support systems, data and text mining, knowledge management, expert systems, neural networks, and other tools and techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5643 Graduate Database Management
Prerequisites: Graduate standing.
Description: Practical foundations of database systems. Current and emerging issues in the database field. May not be used for degree credit with MSIS 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5653 Advanced Systems Analysis and Design
Prerequisites: Graduate standing.
Description: Systems thinking. Systems life cycle, modeling approaches, methods, tools, and techniques of systems analysis and design for the development of modern organizational information systems. May not be used for degree credit with MSIS 4003.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5663 Advanced Data Wrangling
Description: Provides an introduction of the major activities involved in data engineering. These activities include understanding fundamental principles and concepts, design principles, and prototype development to include table definitions, ETL logic, and example report definitions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5673 Descriptive Analytics and Visualization
Description: This course will provide an understanding of the role of descriptive analytics, visualization, and dashboarding in direct support of managerial decision making (business intelligence and analytics). Specifically, knowledge about managerial decision making, business intelligence, analytics, decision support systems and how they relate to other types of information systems; knowledge about human visual processing in relation to data presentation; knowledge of dashboard design and management; and knowledge about software packages and hands-on capabilities. May not be used for degree credit with MSIS 4673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5683 Advanced Analytics Technologies
Description: Project-based study of advanced application of analytic and data wrangling/data engineering type tools for large scale systems. Cannot be used for Degree credit with CS 6583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5693 Digital Transformation Strategy
Prerequisites: Graduate standing.
Description: This course covers a variety of practical and timely managerial and technical challenges faced by organizations as the new digital society and workplace continues to evolve.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5713 Scripting Essentials
Description: Application of scripting languages (e.g. BASH, PowerShell, Python) for general business, data and information assurance solutions. May not be used for degree credit with MSIS 4713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5773 The Upper Layers of Telecommunications Systems
Description: This course is designed to develop a solid and deep understanding of data/telecommunications networks. The course covers various technical components and their functions in today's communication networks, with a special focus on the upper layers of the TCP/IP protocol suite (i.e., Network, Transport, and Application). The topics covered in the course will include, but not be limited to IP packet delivery, forwarding, and routing, UDP and TCP, dynamic host configuration (DHCP), domain name (DNS) lookup, and other widely used Internet applications (e.g., Web and email). Course previously offered as TCOM 5123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5793 Business Applications of Artificial Intelligence
Prerequisites: Graduate Standing.
Description: Project-based study of advanced practical business applications of Artificial Intelligence.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 5900 Practicum in Management Information Systems
Prerequisites: Consent of director of and admission to the MS in MIS program.
Description: Application of MIS-related methods and skills in a business environment. Integration of knowledge through real-world problem solving situations in organizational contexts. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5950 Advanced Practicum
Prerequisites: Consent of director of and admission to the MS in MIS program.
Description: Application of MIS-related methods and skills in a business environment beyond the normal practicum/internship timeframe. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MSIS 5990 Directed Studies in Information Assurance
Prerequisites: Graduate standing and consent of program director.
Description: Special advanced topics, projects and independent study in information assurance and security. Course previously offered as TCOM 5990. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6200 Advanced Topics in Management Information Systems
Prerequisites: Doctoral student status and consent of instructor.
Description: Special advanced topics in management information systems for doctoral students. Offered for variable credit, 3-6 credit hours, maximum of 12 credit hours.
Credit hours: 3-6
Contact hours: Contact: 3-6 Other: 3-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Mgmt Sci & Info Sys

MSIS 6300 Contemporary Topics in MSIS Research
Prerequisites: Doctoral standing.
Description: In depth study in one or more topics in MSIS field. An ongoing conversation about major issues in the field. Topics related to any one of the areas within the broad, interdisciplinary field of management science and information systems, such as management information systems, management science, telecommunications, and operations management. Offered for variable credit, 1-12 credit hours, maximum of 12 credit hours.
Credit hours: 1-12
Contact hours: Lecture: 1-12 Contact: 1-12
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6303 Overview of Information Systems Research
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to become familiar with research streams and domains within Information Systems including theory, methods, paradigms, and various perspectives. Students will develop critical thinking and logical reasoning skills, as well as oral and written communication.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6313 Privacy and Security Research in Information Systems
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to develop an understanding of the research domains of privacy and security in Information Systems. Potential topics covered include conceptualization of concepts (e.g. intention vs. behavior, traits and states), contextual influences (e.g. e-commerce, healthcare, social media, data breaches), and methods (e.g. behavioral economic vs. hypothetical).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6323 Seminar on Qualitative and Mixed-Methods Research
Prerequisites: Doctoral Standing.
Description: The purpose of this seminar is to provide an introduction to qualitative and mixed methods and their use in scholarly research. Drawing upon well regarded courses by top IS scholars, the course balances understanding qualitative research with the application of that understanding to business research. Within a seminar class format, this course develops skills in designing, evaluating, and understanding qualitative research methods.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6333 Overview of MSIS Research
Prerequisites: Doctoral standing.
Description: Recent research studies that fall within the broad, interdisciplinary field of management science and information systems. An introduction to the academic "way of life", focusing on research productivity.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6343 Advanced Methods in MSIS Research
Prerequisites: Doctoral standing.
Description: Development of advanced methodological skills necessary to carry out research in the chosen area of study within the field of MSIS. Skills related to any one of the areas within the broad, interdisciplinary field of management science and information systems, such as management information systems, management science, telecommunications, and operations management. Same course as BADM 6343.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

MSIS 6353 Seminar in Data Analytics
Prerequisites: Doctoral Standing.
Description: The objective of this course is for the PhD student to develop an in-depth understanding and appreciation of business analytics and data science as viable research streams.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Mgmt Sci & Info Sys

Undergraduate Programs

- Data Analytics, BSBA (p. 2836)
- Management Information Systems, BSBA (p. 2843)
- Management Information Systems: Data Science, BSBA (p. 2846)
- Management Information Systems: Information Assurance, BSBA (p. 2848)

Graduate Programs

The Department of Management Science and Information Systems also offers courses that lead to the completion of the Master of Business Administration (MBA), the Master of Science in management information systems (MIS) and the Doctor of Philosophy in business administration (PhD).

The Master of Business Administration (MBA) Degree

(See "Business Administration (p. 2914).")

The Master of Science in Management Information Systems (MIS) Degree

This degree program combines strong practical concepts with intense hands-on instruction, helping graduates not only to understand business processes and the concepts behind the information systems they work with, but also develop, modify, use, and protect these rapidly changing computing systems through their technical expertise.

The MS in MIS is a 30 hour program featuring a core of 21 hours, including a business practicum. Admission requirements for the MS in MIS are like the admission requirements for the other master's programs in the Spears School of Business. Information about the program is available on the Internet at https://go.okstate.edu/graduate-academics/programs/masters/management-information-systems-and-information-assurance-ms.html.

Graduate Certificate in Health Analytics

There is a dire need for professionals with practical knowledge and skills in health analytics—ones who can convert large data repositories into actionable insight for better decisions to enhance effectiveness and efficiency in the ever more complex and highly competitive health care domain. OSU's internationally ranked MS in MIS program has collaborated with the Center of Health Sciences' MS in Health Care Administration (HCA) program and the Center of Health Systems Integration (CHSI) research center focused on the intersection of health, healthcare, informatics and analytics/data sciences to create a new, unique interdisciplinary program – a Certificate in Health Analytics.

The program requires taking four courses (each three credit hours, totaling 12 credit hours) of coursework. This certificate program allows for the courses to double-count toward a master's degree and this certificate degree.

The Doctor of Philosophy (PhD) Degree

The PhD in business administration program administered through the Department of Management Science and Information Systems provides intensive study in the general field of management information systems (including specialties in areas such as data science, cybersecurity, etc.). The program prepares the student for significant professional contributions in university teaching and research.

The program is flexible and individually structured to meet the needs and objectives of the candidate. Emphasis is placed on understanding the analytical and theoretical foundations of the MIS field, applications in the depth area of specialization and development of research capabilities in the discipline.

Competence in planning and executing research must be demonstrated in a dissertation. In addition, each candidate must pass a series of comprehensive qualifying examinations, written and oral, and a separate, final oral examination of the dissertation. To enhance teaching skills, all PhD students in residence are required to teach on a quarter-time or half-time basis for at least one semester while earning the degree.

Outstanding students with master's degrees in any field of study may apply. The application for admission to the program is evaluated based on the following:

1. undergraduate and graduate grade-point averages,
2. the score on the Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE)
3. TOEFL score for international applicants,
4. a two- or three-page statement describing goals and academic interests,
5. three letters of recommendation,
6. evidence of research potential, and
7. a personal interview when feasible.

Minors

- Data Science (DS), Minor (p. 2838)
- Information Assurance (IA), Minor (p. 2840)
- Management Information Systems (MIS), Minor (p. 2842)

Certificates

- Business Analytics, UCRT (p. 2834)
- Cyber Systems, UCRT (p. 2835)
- Data Systems, UCRT (p. 2839)
- Information Systems Development, UCRT (p. 2841)
- Supply Chain Management, UCRT (p. 2851)

Faculty

Rick L. Wilson, PhD—Professor and Head
Regents Professors: Dursun Delen, PhD; Ramesh Sharda, PhD
Professors: Ali Amiri, PhD; Mark Weiser, PhD
Associate Professors: Corey Baham, PhD; David P. Biros, PhD; Jin Kyu Lee, PhD; Xiao Luo, PhD; Andy Luse, PhD

Assistant Professors: Chenzhang Bao, PhD; Matt Baucum, PhD; Samia Cornelius Bhatti, PhD; Wenting (Kayla) Jiang, PhD; Zhuqi Miao, PhD; Xuecheng (Ethan) Yin, PhD
Professors of Professional Practice: Ali Bagheri, PhD; Shoumen Bardhan, MBA; James Burkman, PhD; Evan Davis, PhD; Jason Morgan, MS; Kim Strom, MBA
Other Faculty: Bradford Cary, MS; Christopher Pogue

Business Analytics, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
MSIS 2233	Business Analytics Fundamentals (Q)	3
MSIS 3223	Principles of Data Analytics	3
Select 9 hours from the following:		9
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 3293	Business Analytics Programming	
MSIS 3333	Database Systems Development	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4673	Data Visualization	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4943	Sports Management Analytics	
MKTG 3653	Marketing Analytics	
MKTG 4333	Marketing Research	
MGMT 4543	Management Analytics	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
ECON 4233	Econometric Applications	
FIN 4550	Selected Topics in Finance	
MSIS 4111	Technology Success Skills Application	1
or MSIS 3233	Management Science - Prescriptive Analytics	
or MSIS 3243	Descriptive Analytics	
or MSIS 3253	Supply Chain Operations and Analytics	
or MSIS 3293	Business Analytics Programming	
or MSIS 3333	Database Systems Development	
or MSIS 4263	Business Intelligence and Predictive Analytics	
or MSIS 4673	Data Visualization	
or MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
or MSIS 4943	Sports Management Analytics	
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Cyber Systems, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4523	Infrastructure Development	3
Select 9 hours from the following:		9
MSIS 4053	Supply Chain Security and Risk Analysis	
MSIS 4233	Applied Ethical Hacking	
MSIS 4243	Digital Forensics and Incident Response	
MSIS 4253	System Certification and Accreditation	
MSIS 4273	Legal and Ethical Issues in Information Systems	
MSIS 4713	Scripting Essentials	
MSIS 4111	Technology Success Skills Application (or upper-division MSIS course)	1
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Data Analytics, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade-Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.20 is required in these 64 hours.		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Data Analytics Major Requirements		
A GPA of 2.00 is required in these 34 hours of Data Analytics requirements.		
19 of these 34 hours must be in residence at OSU.		
MSIS 3293	Business Analytics Programming	3
MSIS 3333	Database Systems Development	3
MSIS 4010	Applied Analytics and Information System Studies	3
MSIS 4111	Technology Success Skills Application	1
MSIS 4333	Data Wrangling	3
Select 12 hours from the following:		12
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
MSIS 4943	Sports Management Analytics	
Select 6 hours from the following:		6
MKTG 3653	Marketing Analytics	
MKTG 4333	Marketing Research	
ECON 4213	Econometric Methods	
ECON 4223	Business and Economic Forecasting	
ECON 4233	Econometric Applications	
FIN 4550	Selected Topics in Finance	
MGMT 4543	Management Analytics	
Upper-division MSIS		
Upper-division MATH		
Upper-division STAT		
Select 3 hours from the following:		3
Any upper-division ACCT, ECON, FIN, EEE, MKTG, MGMT, MSIS, HTM, MATH, and STAT.		
Any CS courses except CS 1111, CS 4113, and CS 4883.		
Hours Subtotal		**64**
Electives		

Select 13 hours [3]	13
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.	
Hours Subtotal	**13**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
ECON 2003	Microeconomic Principles for Business	3
MSIS 3293	Business Analytics Programming	3
'LN' designated course		4
	Hours	**16**
Sophomore		
Fall		
EEE 2023	Introduction to Entrepreneurship	3
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
MSIS 3333	Database Systems Development	3
	Hours	**16**
Spring		
MGMT 3013	Fundamentals of Management (S)	3
POLS 1113	American Government	3
'H' designated course		3
'N' designated course		3
'D' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
'H' designated course		3
3 hours from 12 hour list in major		3
3 hours from 6 hour list in major		3
3 hours of electives		3
	Hours	**16**
Spring		
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MSIS 4333	Data Wrangling	3
3 hours from 12 hour list in major		3
3 hours from 12 hour list in major		3
	Hours	**15**
Senior		
Fall		
MSIS 4111	Technology Success Skills Application	1
3 hours from 12 hour list in major		3
3 hours from 6 hour list in major		3
3 hours upper division business		3
3 hours of electives		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
MSIS 4010	Applied Analytics and Information System Studies	3
3 hours of electives		3
3 hours of electives		3
1 hour of elective		1
	Hours	**13**
	Total Hours	**120**

Data Science (DS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 15

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MSIS 2103	Business Data Science Technologies	3
MSIS 3103	End User Database Systems Design and Management	3
or MSIS 3333	Database Systems Development	
MSIS 3223	Principles of Data Analytics	3
MSIS 3233	Management Science - Prescriptive Analytics	3
Select one of the following:		3
MSIS 3243	Descriptive Analytics	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4673	Data Visualization	
Total Hours		**15**

Other Requirements

- 12 of the 15 hours must be in residence at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Data Systems, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
MSIS 3293	Business Analytics Programming	3
MSIS 3333	Database Systems Development	3
MSIS 4333	Data Wrangling	3
Select 6 hours from the following:		6
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4943	Sports Management Analytics	
MSIS 4111	Technology Success Skills Application (or upper-division MSIS course (except MSIS 3223))	1
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Information Assurance (IA), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 15

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4523	Infrastructure Development	3
Select 9 hours of the following:		9
MSIS 4233	Applied Information Systems Security	
MSIS 4253	System Certification and Accreditation	
MSIS 4273	Legal and Ethical Issues in Information Systems	
MSIS 4713	Scripting Essentials	
Total Hours		**15**

Other Requirements

- 12 of the 15 hours must be taken in residence at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Information Systems Development, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
MSIS 2103	Business Data Science Technologies	3
MSIS 2203	Computer Programming for Business	3
MSIS 3333	Database Systems Development	3
MSIS 3363	Web Application Development	3
Select one of the following:		3
MSIS 4003	Systems Analysis and Design	
MSIS 4033	Information Systems Project Management and Communication	
MSIS 4111	Technology Success Skills Application (or upper-division MSIS course (except MSIS 3223))	1
Total Hours		**16**

Additional Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Management Information Systems (MIS), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 15

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MSIS 2103	Business Data Science Technologies	3
MSIS 2203	Computer Programming for Business	3
MSIS 3333	Database Systems Development	3
or MSIS 3103	End User Database Systems Design and Management	
Select 6 hours upper-division MSIS excluding MSIS 3223		6
Total Hours		**15**

Other Requirements

- 12 of the 15 hours must be in residence at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Management Information Systems, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.20 is required in these 67 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Information Systems Major Requirements		
A GPA of 2.00 is required in these 37 hours of Management Information Systems Major Requirements		
21 of these 37 hours must be in residence at OSU		
MSIS 2203	Computer Programming for Business	3
MSIS 3363	Web Application Development	3
Select one of the following:		3
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 3293	Business Analytics Programming	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4943	Sports Management Analytics	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
MSIS 3333	Database Systems Development	3
MSIS 4003	Systems Analysis and Design	3
MSIS 4033	Information Systems Project Management and Communication	3
MSIS 4111	Technology Success Skills Application	1
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4133	Information Technologies for Electronic Commerce	3
or MSIS 4363	Advanced Application Development	
MSIS 4523	Infrastructure Development	3
Select 9 hours of the following:		9
Any upper-division course from ACCT, BADM, ECON, FIN, EEE, MKTG, MGMT, MSIS, and HTM.		
Any CS courses except CS 1111, CS 4113 and CS 4883.		
Hours Subtotal		**67**
Electives		
Select 10 hours [3]		10

May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.

Hours Subtotal	**10**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
MSIS 2203	Computer Programming for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
ECON 2003	Microeconomic Principles for Business	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'LN' designated course		4
	Hours	**16**
Sophomore		
Fall		
EEE 2023	Introduction to Entrepreneurship	3
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
MSIS 3333	Database Systems Development	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
MSIS 4123	Cybersecurity Systems Management	3
MSIS 3363	Web Application Development	3
MGMT 3013	Fundamentals of Management (S)	3
POLS 1113	American Government	3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
MSIS 4003	Systems Analysis and Design	3
MSIS 3233 or MSIS 3243 or MSIS 3253 or MSIS 3293 or MSIS 4443 or MSIS 4943 or MSIS 4263 or MSIS 4623 or MSIS 4673	Management Science - Prescriptive Analytics or Descriptive Analytics or Supply Chain Operations and Analytics or Business Analytics Programming or Advanced Topics in Analytics and Artificial Intelligence or Sports Management Analytics or Business Intelligence and Predictive Analytics or Data Science Programming or Data Visualization	3
'H' designated course		3
3 hours of electives		3
	Hours	**16**
Spring		
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MSIS 4033	Information Systems Project Management and Communication	3
MSIS 4523	Infrastructure Development	3
3 hours from 9 hour list in major		3
	Hours	**15**
Senior		
Fall		
MSIS 4111	Technology Success Skills Application	1
MSIS 4133 or MSIS 4363	Information Technologies for Electronic Commerce or Advanced Application Development	3
'N' designated course		3
3 hours from 9 hour list in major		3
3 hours of electives		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
3 hours from 9 hour list in major		3

'D' designated course		3
3 hours of electives		3
1 hour of elective		1
	Hours	**13**
	Total Hours	**120**

Management Information Systems: Data Science, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**

Major Requirements		
A minimum GPA of 2.20 is required in these 67 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Information Systems Major Requirements		
A GPA of 2.00 is required in these 37 hours of Management Information Systems Major Requirements		
21 of these 37 hours must be in residence at OSU		
MSIS 2203	Computer Programming for Business	3
MSIS 3333	Database Systems Development	3
MSIS 3363	Web Application Development	3
MSIS 4003	Systems Analysis and Design	3
MSIS 4033	Information Systems Project Management and Communication	3
MSIS 4111	Technology Success Skills Application	1
MSIS 4123	Cybersecurity Systems Management	3
Select 12 hours of the following:		12
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 3293	Business Analytics Programming	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
MSIS 4943	Sports Management Analytics	
Select 6 hours of the following:		6
Any upper-division ACCT, BADM, ECON, FIN, EEE, MKTG, MGMT, MSIS, HTM, MATH, and STAT.		
Any CS courses except CS 1111, CS 4113 and CS 4883.		
Hours Subtotal		**67**
Electives		
Select 10 hours [3]		10
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		

Hours Subtotal	**10**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
MSIS 2203	Computer Programming for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
ECON 2003	Microeconomic Principles for Business	3
'LN' designated course		4
	Hours	**16**
Sophomore		
Fall		
EEE 2023	Introduction to Entrepreneurship	3
BADM 2111	Career Planning for Business Success	1
ACCT 2003	Survey of Accounting	3
MSIS 3333	Database Systems Development	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
MSIS 3363	Web Application Development	3
MGMT 3013	Fundamentals of Management (S)	3
POLS 1113	American Government	3
3 hours from 12 hour list in major		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
MSIS 4003	Systems Analysis and Design	3
MSIS 4123	Cybersecurity Systems Management	3
3 hours from 12 hour list in major		3
'H' designated course		3
	Hours	**16**
Spring		
LSB 3213	Legal and Regulatory Environment of Business	3
MSIS 4033	Information Systems Project Management and Communication	3
BADM 3113	Practical Business and Interpersonal Skills	3
3 hours from 12 hour list in major		3
3 hours from 6 hour list in major		3
	Hours	**15**
Senior		
Fall		
MSIS 4111	Technology Success Skills Application	1
3 hours from 12 hour list in major		3
3 hours from 6 hour list in major		3
3 hours of electives		3
'N' designated course		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
'D' designated course		3
3 hours of electives		3
3 hours of electives		3
1 hour of elective		1
	Hours	**13**
	Total Hours	**120**

Management Information Systems: Information Assurance, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.20 is required in these 67 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Management Information Systems Major Requirements		
A GPA of 2.00 is required in these 37 hours of Management Information Systems Major Requirements		
21 of these 37 hours must be in residence at OSU		
MSIS 2203	Computer Programming for Business	3
MSIS 3363	Web Application Development	3
MSIS 4233	Applied Ethical Hacking	3
Select one of the following:		3
MSIS 3233	Management Science - Prescriptive Analytics	
MSIS 3243	Descriptive Analytics	
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 3293	Business Analytics Programming	
MSIS 4263	Business Intelligence and Predictive Analytics	
MSIS 4443	Advanced Topics in Analytics and Artificial Intelligence	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
MSIS 4943	Sports Management Analytics	
MSIS 3333	Database Systems Development	3
MSIS 4003	Systems Analysis and Design	3
MSIS 4033	Information Systems Project Management and Communication	3
MSIS 4111	Technology Success Skills Application	1
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4523	Infrastructure Development	3
Select 6 hours of the following:		6
MSIS 4053	Supply Chain Security and Risk Analysis	
MSIS 4243	Digital Forensics and Incident Response	
MSIS 4253	System Certification and Accreditation	
MSIS 4273	Legal and Ethical Issues in Information Systems	
MSIS 4713	Scripting Essentials	
Select 3 hours of the following:		3
Any upper-division ACCT, BADM, ECON, FIN, EEE, MKTG, MGMT, MSIS, and HTM.		
Any CS courses except CS 1111, CS 4113 and CS 4883.		

Hours Subtotal	**67**
Electives	
Select 10 hours [3]	10
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.	
Hours Subtotal	**10**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
MSIS 2203	Computer Programming for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
ECON 2003	Microeconomic Principles for Business	3
'LN' designated course		4
	Hours	**16**
Sophomore		
Fall		
EEE 2023	Introduction to Entrepreneurship	3
BADM 2111	Career Planning for Business Success	1
ACCT 2003	Survey of Accounting	3
MSIS 3333	Database Systems Development	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
	Hours	**16**
Spring		
MSIS 3363	Web Application Development	3
MGMT 3013	Fundamentals of Management (S)	3
MSIS 4123	Cybersecurity Systems Management	3
POLS 1113	American Government	3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
MSIS 4003	Systems Analysis and Design	3
MSIS 4523	Infrastructure Development	3
'H' designated course		3
3 hours of electives		3
	Hours	**16**
Spring		
LSB 3213	Legal and Regulatory Environment of Business	3
BADM 3113	Practical Business and Interpersonal Skills	3
MSIS 4033	Information Systems Project Management and Communication	3
3 hours from 6 hour list in major		3
'D' designated course		3
	Hours	**15**
Senior		
Fall		
MSIS 3233 or MSIS 3243 or MSIS 3253 or MSIS 3293 or MSIS 4263 or MSIS 4443 or MSIS 4623 or MSIS 4673 or MSIS 4943	Management Science - Prescriptive Analytics or Descriptive Analytics or Supply Chain Operations and Analytics or Business Analytics Programming or Business Intelligence and Predictive Analytics or Advanced Topics in Analytics and Artificial Intelligence or Data Science Programming or Data Visualization or Sports Management Analytics	3
MSIS 4111	Technology Success Skills Application	1
'N' designated course		3
3 hours from 6 hour list in major		3
3 hours from 3 hour list in major		3
	Hours	**13**

Spring		
MGMT 4513	Strategic Management	3
MSIS 4233	Applied Ethical Hacking	3
3 hours of electives		3
3 hours of electives		3
1 hour of elective		1
	Hours	**13**
	Total Hours	**120**

Supply Chain Management, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
MKTG 3213	Marketing (S)	3
MKTG 3223	Supply Chain Management	3
MSIS 3223	Principles of Data Analytics	3
or AGEC 3213	Quantitative Methods in Agricultural Economics	
Select one of the following:		3
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 4153	Supply Chain Systems and Technologies	
MSIS 4053	Supply Chain Security and Risk Analysis	
AGEC 4223	Quantitative Supply Chain Management in Agribusiness	
Select 6 hours from the following (not taken above):		6
MSIS 3253	Supply Chain Operations and Analytics	
MSIS 4153	Supply Chain Systems and Technologies	
MSIS 4053	Supply Chain Security and Risk Analysis	
MKTG 4213	Advanced Supply Chain Management	
MKTG 4233	Purchasing & Strategic Sourcing in Supply Chain Management	
MKTG 4243	Transportation Modalities and Logistics Management in the Supply Chain	
AGEC 4223	Quantitative Supply Chain Management in Agribusiness	
Total Hours		**18**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

School of Accounting

The School of Accounting offers degree programs at the undergraduate, master's, and doctoral levels. At each level, students have various options that allow them to choose the plan of study that best prepares them to achieve their career objectives.

Accounting plays a critical role in supporting a prosperous society. The School of Accounting prepares students to become part of the future of the accounting profession as trusted consultants, accountants, managers, and analysts who support businesses and organizations in the global marketplace. We focus on preparing our students for a rewarding career where they can help solve interesting and important problems. Our graduates have many possible career paths, including practicing as public, private, or governmental accountants or working in managerial positions requiring an understanding of important accounting concepts. Our faculty members are known for their dedication to students and for advancing the practice of accounting and accounting education through active research programs and continuing professional development.

The BS and MS accounting programs are focused on educating students for success in a wide range of professional accounting careers. Both programs prepare students to complete market-relevant professional accounting certifications.

The specific objective of the BS accounting program is to provide fundamental knowledge as a foundation for accounting career development, with a focus on having students complete the CIA and CMA professional exams, or enter an MS-accounting program as preparation for completion of the Uniform CPA Examination.

The specific objective of the MS accounting program is to provide students with a greater breadth and depth in accounting than is possible in the BS program. The MS program has a specific focus on preparing graduates for careers as professional accountants who will complete the Uniform CPA Examination.

Students who have the objective of becoming a CPA in Oklahoma must have a BS degree and are required to complete 150 credit hours consisting of 30 hours of accounting above introductory accounting (including 3 hours of external auditing) and nine upper-division hours from other business-related areas.

Accreditation

The School of Business is fully accredited by AACSB International, with the School of Accounting having supplemental accreditation by AACSB.

Courses

ACCT 2003 Survey of Accounting
Prerequisites: 24 semester credit hours.
Description: Introduction to financial and managerial accounting concepts and objectives. May not be used for degree credit with ACCT 2103 and ACCT 2203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 2103 Financial Accounting
Prerequisites: 24 semester credit hours, including ENGL 1113 and MATH 1483 or equivalent.
Description: Financial accounting concepts and the use of financial accounting information in decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 2203 Managerial Accounting
Prerequisites: ACCT 2103.
Description: Managerial accounting concepts and objectives, planning and control of sales and costs, analysis of costs and profits.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3001 Practicum in Professional Accounting I
Prerequisites: ACCT 2003 with a grade of "C" or better or both ACCT 2103 and ACCT 2203 with a grade of "C" or better.
Description: Study of current and emerging issues in the accounting profession. Graded on a pass-fail basis.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3003 Foundational Accounting Skills
Prerequisites: ACCT 2003 with a grade of "C" or better (or ACCT 2103 and ACCT 2203 with a grade of "C" or better).
Description: Foundational skills and concepts underlying financial accounting and reporting. May not be used for degree credit with ACCT 3004.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3004 Foundational Accounting and Data Skills
Prerequisites: (MSIS 2103 or AGEC 3213) with a grade of "C" or better and ACCT 2003 (or both ACCT 2103 and ACCT 2203) with a grade of "C" or better.
Description: Foundational skills and concepts underlying financial accounting and reporting and data analytics in accounting. May not be used for degree credit with ACCT 3003.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 3013 Federal Income Taxation
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Federal income tax and its relationship to business decision-making; primary emphasis on recognition of the important tax consequences that attach to business transactions and the impact on decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3103 Intermediate Accounting I
Prerequisites: ACCT 3003 or ACCT 3004 with a grade of "C" or better (or ACCT 2103 and ACCT 2203 with a grade of "C" or better and satisfactory score on a qualifying exam covering basic accounting concepts).
Description: Theory and concepts underlying financial accounting and reporting. Previously offered as ACCT 3433 and ACCT 3303. May not be used for degree credit with ACCT 3104.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3104 Intermediate Accounting I and Data Analysis
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Theory and concepts underlying financial accounting and reporting. Foundational accounting data analytics skills. May not be used for degree credit with ACCT 3103.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 3113 Intermediate Accounting II
Prerequisites: ACCT 3104 or ACCT 3103 with a grade of "C" or better
Description: Theory and concepts underlying financial accounting and reporting. Continuation of ACCT 3103. Previously offered as ACCT 4433 and ACCT 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3203 Cost Accounting
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better and STAT 2013 or STAT 2023 or STAT 2053 with a grade of "C" or better.
Description: Cost accounting knowledge and skills required of early career accountants. Topics covered likely to include cost accumulation systems, allocating product costs, planning and controlling costs, standard costing, and profitability analysis.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 3603 Accounting Information Systems and Data Analytic Tools
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: Accounting information systems knowledge and skills required of early career accountants. Topics likely to include accounting system design and installation, and related internal controls, as well as relevant data analytic tools. Course previously offered as ACCT 4603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4033 Advanced Federal Income Taxation
Prerequisites: ACCT 3013 with a grade of "C" or better.
Description: Federal income tax law applicable to individuals, corporations, partnerships, trusts and estates, and other specialized topics. Previously offered as ACCT 4013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4073 Tax Planning for Financial Professionals
Prerequisites: ACCT 3104 with a grade of "C" or better.
Description: Fundamental tax law, income taxation for individuals and businesses, and advanced tax reduction strategies. Emphasis on practical application, teaching students how to understand the tax implications of various financial decisions. May not be used for degree credit with ACCT 5073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4133 Advanced Accounting
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Advanced accounting knowledge and skills required of early career accountants. Topics likely to include accounting for business combinations and consolidations, accounting for governmental and not-for-profit entities. Previously offered as ACCT 4403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4233 Internal Auditing
Prerequisites: ACCT 2003 and MSIS 3223.
Description: Internal auditing theory, procedures, and practices required of early career accountants. Previously offered as ACCT 4203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4503 External Auditing
Prerequisites: ACCT 3104 (or ACCT 3103) with a grade of "C" or better and ACCT 3603 with a grade of "C" or better or concurrent enrollment.
Description: External auditing theory, procedures, and practices required of early career accountants.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4553 Ethics for Public Accountants
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Ethics concepts and applications required of early career accountants. Topics likely to include basic theories of ethics, including moral reasoning, moral values, relativity and objectivity, freedom and responsibility. Lecture and case approach for examination of issues such as independence, integrity, objectivity, client relationships, employee-employer relations, advertising, preferential treatment, core values and the corporation, and corporate governance, such as Sarbanes-Oxley Act, Foreign Corrupt Practices Act, and SEC regulations. Some states, including Texas, California, Colorado, and Virginia, require the completion of an ethics course to be eligible to sit for the CPA Exam. May not be used for degree credit with ACCT 5453.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4623 Expanding Accounting Horizons in the U.S. for Non-Majors
Prerequisites: ACCT 2003 with a grade of "C" or better (or both ACCT 2103 and ACCT 2203 with a grade of "C" or better).
Description: A visit to a region or regions within the United States. An integrated approach to the organization, economic, political, historical, and technological issues impacting the firms, industries, or standard setters visited. May not be used for degree credit with ACCT 4723.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4723 Expanding Accounting Horizons in the US
Prerequisites: ACCT 3004 or ACCT 3003 with a grade of "C" or better.
Description: A visit to a region or regions within the United States. An integrated approach to the organizational, economic, political, historical, and technological issues impacting the firms, industries, and standard settlers visited. Effect on the accounting profession of the firms, industries, and standard settlers visited is also examined. May not be used for degree credit with ACCT 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4743 Oil and Gas Accounting
Prerequisites: ACCT 3104 or ACCT 3103 with a grade of "C" or better.
Description: Generally accepted accounting practices and procedures in the oil and gas industry. May not be used for degree credit with ACCT 5133.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4763 International Accounting Abroad (G)
Prerequisites: ACCT 2003 with a grade of “C” or better or consent of instructor.
Description: A visit to a location or locations outside the United States. An integrated approach to the cultural, economic, political, historical, and technological effects of the region on international accounting. Comparison of the accounting issues of the region to that of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting
General Education and other Course Attributes: International Dimension

ACCT 4901 Advanced Accounting Tools and Technologies
Prerequisites: ACCT 3104 with a grade of "C" or better.
Description: Advanced accounting analytics and technology skills.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4911 Practicum in Professional Accounting II
Prerequisites: ACCT 3113 with a grade of "C" or better; BSBA-Accounting major or minor.
Description: Study of current and emerging issues in the accounting profession, focusing on the impact of emerging technology.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Accounting

ACCT 4930 Accounting Projects
Prerequisites: Consent of instructor.
Description: Special topics, projects and independent study in accounting. Previously offered as ACCT 4010. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4933 Internship in Accounting
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Supervised internship of at least 320 hours in public accounting, industry, government, or not-for-profit sector. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 5830. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4943 CIA Review
Prerequisites: ACCT 3113 with a "C" or better, and ACCT 4233 with a "C" or better or concurrent enrollment.
Description: Review of content and skills tested on the Certified Internal Auditor exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials. May not be used for degree credit with ACCT 4953, ACCT 4963, ACCT 4970, ACCT 5994, or ACCT 5980.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4953 CMA Review
Prerequisites: ACCT 3113, ACCT 3203, and FIN 3113, all with a "C" or better.
Description: Review of content and skills tested on the Certified Management Accountant exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials. May not be used for degree credit with ACCT 4943, ACCT 4963, ACCT 4970, ACCT 5994, or ACCT 5980.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4963 CPA Review
Prerequisites: ACCT 4133 with a grade of "C" or better (or concurrent enrollment) and completion of 120 credit hours.
Description: Review of context and skills tested on the Certified Public Accountant exam. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4970, ACCT 5994, or ACCT 5980. Graded on a pass-fail basis. Please see instructor for additional costs associated with the course and related materials.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 4970 Accounting Professional Certification Review
Prerequisites: ACCT 3113 with a "C" or better and Instructor permission.
Description: Review of content and skills tested on specified professional accountancy exams. Does not count toward upper-level accounting requirements for CPA Exam eligibility in all states. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4963, ACCT 5994, or ACCT 5980. Graded on a pass-fail basis. Offered for variable credit, 1-4 credits, maximum 4 credit hours. Please see instructor for additional costs associated with the course and related materials.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 5003 Advanced Federal Income Taxation
Prerequisites: Admission to MS in accounting.
Description: Federal income tax law applicable to individuals, corporations, partnerships, trusts and estates, and other specialized topics. Previously offered as ACCT 4033. May not be used for degree credit with ACCT 4033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5013 Tax Research
Prerequisites: Admission to MS in accounting.
Description: Development and administration of federal tax law with emphasis on the development of tax research skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5043 Taxation of Pass-Through Entities
Prerequisites: Admission to MS in accounting and completion of ACCT 5013.
Description: Federal income tax laws applicable to pass-through entities, including partnerships and S corporations, and their owners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5053 Corporate Taxation
Prerequisites: Admission to MS in accounting and completion of ACCT 5013.
Description: Federal income tax law applicable to corporations and shareholders.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5073 Tax Planning for Financial Professionals
Prerequisites: Admission to the MS Accounting or MS Quantitative Finance programs.
Description: Fundamental tax law, income taxation for individuals and businesses, and advanced tax reduction strategies. Emphasis on practical application, teaching students how to understand the tax implications of various financial decisions. May not be used for degree credit with ACCT 4073.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5093 Reimagine: Innovative Accounting and Analytics Mindset
Prerequisites: Admission to the MS in Accounting Program.
Description: Focus on improving innovation, creativity, leadership and communication skills related to the accounting function. Please see Program Coordinator for additional costs associated with the course, related travel costs and scholarship opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5100 Professional Development
Prerequisites: Admission into the MS in Accounting Program
Description: Practical insights into the accounting profession and development of essential career skills. Offered for 1 -3 credit hours, max of 9.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5103 Seminar in Contemporary Accounting Theory I
Prerequisites: Admission to MS in accounting.
Description: Origins and development of accounting theory. Critical study of issues in contemporary accounting theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5113 Financial Accounting Research
Prerequisites: Admission to MS in accounting.
Description: Research and presentation of solutions for complex issues in contemporary accounting practice; using databases, SEC, FASB, AICPA, IASB, as well as other publicly available information.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5133 Oil and Gas Accounting
Prerequisites: Admission to MS in accounting.
Description: Financial accounting and reporting for oil and gas operations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5143 Advanced Topics in Financial Reporting
Prerequisites: Admission to MS in Accounting Program
Description: Advanced theory and concepts underlying financial accounting and reporting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5153 Financial Statement Analysis
Prerequisites: Admission to MS in accounting.
Description: Study of the demand and supply of financial data, properties of numbers derived from financial statements, the role of financial information in investment decisions, and features of the decision-making environment. Previously offered as ACCT 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5183 MBA Financial Reporting
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Fundamentals of financial reporting, preparation and analysis of financial statements, and the role of financial accounting in decision making. Previously offered as ACCT 5103.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5204 Financial Reporting I
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a “C” or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Theory and concepts underlying financial accounting and reporting. Foundational accounting data analytics skills. May not be used for degree credit if a student has credit in ACCT 3103, ACCT 3104, or the equivalent.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Accounting

ACCT 5213 Financial Reporting II
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a “C” or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Theory and concepts underlying financial accounting and reporting. May not be used for degree credit with ACCT 3113.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5223 Financial Reporting III
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a “C” or better in ACCT 5213 or equivalent
Description: Advanced accounting knowledge and skills required of early career accountants. Topics likely to include accounting for business combinations and consolidations, accounting for governmental and not-for-profit entities. May not be used for degree credit if a student has credit in ACCT 4133 or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5283 MBA Managerial Accounting
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Interpretation of accounting data in planning, controlling and decision-making.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5333 Cost Accounting
Prerequisites: Admission to graduate program in the Spears School of Business AND ACCT 3004 OR ACCT 5183 or the equivalent
Description: Cost accounting knowledge and skills required of early career accountants. Topics covered likely to include cost accumulation systems, allocating product costs, planning and controlling costs, standard costing, and profitability analysis. Cannot be used for degree credit with ACCT 3203.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5343 Accounting Information Systems and Data Analytics Tools
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and ACCT 3003 or ACCT 3004 or ACCT 5183;
Description: Accounting information systems knowledge and skills required of early career accountants. Topics likely to include accounting system design and installation, and related internal controls, as well as relevant data analytic tools. May not be used for degree credit if a student has credit in ACCT 3603, or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5353 Federal Income Taxation
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and a “C” or better in ACCT 3003 or ACCT 3004 or ACCT 5183.
Description: Federal income tax and its relationship to business decision-making; primary emphasis on recognition of the important tax consequences that attach to business transactions and the impact on decision-making. May not be used for degree credit if a student has credit in ACCT 3013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5363 External Auditing
Prerequisites: Admission to a Spears School of Business graduate degree or certificate program and ACCT 3103 or ACCT 3104 or ACCT 5204.
Description: External auditing theory, procedures, and practices required of early career accountants. May not be used for degree credit if a student has credit in ACCT 4503 or the equivalent.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5453 Ethics for Public Accountants
Prerequisites: ACCT 3113 with a grade of "C" or better.
Description: Ethics concepts and applications required of early career accountants. Topics likely to include basic theories of ethics, including moral reasoning, moral values, relativity and objectivity, freedom and responsibility. Lecture and case approach for examination of issues such as independence, integrity, objectivity, client relationships, employee-employer relations, advertising, preferential treatment, core values and the corporation, and corporate governance, such as Sarbanes-Oxley Act, Foreign Corrupt Practices Act, and SEC regulations. Some states, including Texas, California, Colorado, and Virginia, requires the completion of an ethics course to be eligible to sit for the CPA Exam. May not be used for degree credit with ACCT 4553.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5503 Advanced Auditing
Prerequisites: Admission to MS in accounting.
Description: Auditing theory, procedures and practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5543 Fraud Examination
Prerequisites: Permission of SSB Graduate Programs office.
Description: Schemes used in the commission of white-collar fraud, as well as causes, symptoms and prevention methods related to these crimes.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5563 Special Topics in Taxation
Prerequisites: Admission to the MS in Accounting Program and ACCT 5013.
Description: The study of specialized topics including state and local income tax, tax issues related to non-profit entities, tax compliance and planning, and international tax issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5603 Advanced Accounting-based Information Systems
Prerequisites: Admission to MS in accounting.
Description: Concepts underlying the design and use of an effective accounting information system.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5623 Contemporary Issues in Taxation
Prerequisites: Admission to the MS in Accounting Program and ACCT 5013.
Description: Contemporary issues in taxation.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5723 Expanding Accounting Horizons in the US
Prerequisites: Admission to MS in accounting.
Description: A visit to a region or regions within the United States. An integrated approach to the organizational, economic, political, historical, and technological issues impacting the firms, industries, and standard settlers visited. Effect on the accounting profession of the firms, industries, and standard settlers visited is also examined.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5763 International Accounting Abroad
Prerequisites: Admission to MS in accounting.
Description: A visit to a location or locations outside the United States. An integrated approach to the cultural, economic, political, historical, and technological effects of the region on international accounting. Comparison of the accounting issues of the region to that of the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5783 MBA International Acct
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Diversity in financial reporting across countries and its effect on global capital flows. Corporate financial information across borders. Accounting in emerging markets.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5833 Graduate Internship in Accounting
Prerequisites: Admission to MS in accounting. Completion of either MSIS 5393 or department approved Excel program.
Description: Minimum 320-hour supervised internship in an accounting-related function. May be counted as elective hours only. May not be used for degree credit with ACCT 4933. Graded on a pass-fail basis. Supervised internship in public accounting, industry, or not-for-profit organizations. May be counted as elective hours only. Previously offered as ACCT 5900 and ACCT 5830. May not be used for degree credit with ACCT 4933. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 5840 Special Topics and Individual Work in Accounting
Prerequisites: Admission to MS in accounting and consent of instructor.
Description: Individual work on special topics, projects or readings selected to acquaint students with significant accounting literature. Previously offered as ACCT 5110. Offered for variable credit, 1-10 credit hours, maximum of 10 credit hours.
Credit hours: 1-10
Contact hours: Lecture: 1-10 Contact: 1-10
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 5880 MBA Special Topics in Accounting
Prerequisites: ACCT 5183 and admission to MBA program or consent of MBA director.
Description: Individual work on special topics, projects or readings to acquaint students with accounting literature. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 5980 CPA Review
Prerequisites: Admission to MS in accounting program.
Description: Review of content and skills tested on the Certified Public Accountant exam. May not be used for degree credit with ACCT 4943, ACCT 4953, ACCT 4963, or ACCT 4970. Please see Program Coordinator for additional costs associated with the course and related materials. Previously offered as ACCT 5990 and ACCT 5994. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.
Credit hours: 1-4
Contact hours: Contact: 1-4 Other: 1-4
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

ACCT 6000 Doctoral Research and Thesis
Prerequisites: Approval of advisory committee.
Description: For students working on the doctoral degree. Offered for variable credit, 1-18 credit hours, maximum of 36 credit hours.
Credit hours: 1-18
Contact hours: Contact: 1-18 Other: 1-18
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 6110 Graduate Readings and Special Topics in Accounting
Prerequisites: Consent of supervising professor and coordinator of graduate programs in accounting.
Description: Supervised reading of significant literature and study of special topics not covered in regularly scheduled accounting courses. Offered for variable credit, 1-3 credit hours, maximum of 20 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Accounting

ACCT 6703 Seminar in Accounting Research
Prerequisites: Doctoral student status and consent of coordinator of graduate programs in accounting.
Description: The theoretical literature and research methodology in accounting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 6803 Capital Markets Research in Accounting
Prerequisites: Consent of supervising professor and coordinator (or director) of the doctoral program in accounting.
Description: This course introduces empirical accounting research literature, particularly in the areas of capital markets, security valuation, and determinants of accounting choices made by managers. Students read and discuss several papers that examine a broad range of research questions and that use a variety of empirical research techniques. The course is designed to enable the student to understand and appreciate extant research, and help the student develop the skills necessary to conduct their own research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

ACCT 6903 Analytical and Archival Research
Prerequisites: Consent of supervising professor and coordinator (or director) of the doctoral program in accounting.
Description: This course introduces analytical research literature in the areas of accounting, finance, and economics. Students read and discuss several papers that examine a broad range of research questions and that address those questions using analytical and archival research techniques. The course is designed to enable the student to understand and appreciate extant research, and help the student develop the skills necessary to conduct their own research.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Accounting

Undergraduate Programs

- Accounting Systems: Cyber Audit, BSBA (p. 2862)
- Accounting Systems: Data Analytics, BSBA (p. 2864)
- Accounting: External Reporting, Control, and Auditing, BSBA (p. 2867)
- Accounting: Internal Reporting, Control and Auditing, BSBA (p. 2870)

Graduate Programs

The Master of Science in Accounting Degree

The objective of the MS accounting program is to provide students with a greater breadth and depth in accounting than is possible in the BS program. The MS program has a specific focus on preparing graduates for careers as professional accountants who will complete the Uniform CPA Examination. Students who complete our master's program will be technically adept, resourceful, and ready to compete in a fast-changing, increasingly-global world. In addition to technical competence, the program places particular emphasis on professional ethics, personal responsibility, continuing development of leadership skills, and communication skills. Advanced courses provide a theoretical foundation for insight into significant problems practitioners in the accounting profession will confront. Candidates enter the program as a cohort in the summer semester and may select one of five concentrations: (1) Tax, (2) Financial Reporting and Auditing, (3) Data Analytics and Systems, (4) Corporate Finance, and (5) Research Methods. The program consists of 33 or 34 hours depending on the selected concentration. Please note

that some concentrations may not be available every year. Please check with the Program Coordinator if you have questions about a specific concentration, as not all concentrations may be available each year.

Admissions are decided on a holistic approach, with the following criteria preferences being considered: an undergraduate degree, an upper-division grade-point average in accounting of 3.25, an overall grade-point average of 3.0, and a GMAT score of 550.

The Doctor of Philosophy Degree

The PhD in the Spears School of Business with a major in accounting provides the highest degree of preparation for the individual student, enabling the student to make significant contributions in research, teaching, and professional engagement in a university setting. Admission to the program is very competitive.

Graduates of recognized colleges and universities whose records indicate appropriate academic achievement and intellectual capacity may qualify for admission to the program. Additional factors considered in the admissions process include interpersonal skills and professional accounting experience. Satisfactory scores on the GMAT and TOEFL (for non-US applicants) are also required.

Students in the PhD program take a series of seminars that provides an overview of relevant accounting academic literature, along with additional methods coursework that prepares students to conduct high-quality academic research. A student's advisory committee assists in developing a plan of study that adequately covers the student's research and teaching interests. Our PhD students have teaching and research-related responsibilities throughout their program.

Certificates

- Accounting, Systems, and Auditing, UCRT (p. 2866)

Minors

- Accounting (ACCT), Minor (p. 2861)

Faculty

Angela Wheeler Spencer, PhD, CPA-Head
Professors: Audrey A. Gramling, PhD, CPA, CIA
Associate Professors: Brad Lawson, PhD, CPA; Teresa Lightner, PhD, CPA; Sandeep Nabar, PhD; William C. Schwartz, PhD, CPA; Michael Stuart, PhD, CPA; Michael Wolfe, PhD
Assistant Professors: William Cather, PhD, CPA; Rick Laux, PhD, CPA; Craig A. Sisneros, PhD; Jacqueline Tan, PhD, CFE
Instructors of Professional Practice: Angela Baker, MS, CPA; Rachel Cox, MS, CPA; Rachel Domnick, MS, CPA; Sarah Johnson, MS, CPA; Alyssa Vowell, MBA, CPA; Julie Ward, MS, CPA
Other Faculty: Samantha Baratz, JD, MS, CPA; Steve Crall, MS, CPA; Gaylene Hargrove, MBA, CPA; Bret Little, MS, CPA; Kolby Miller, MS, CPA

Accounting (ACCT), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.50
Total Hours: 18

Code	Title	Hours
Minor Requirements		
ACCT 2003	Survey of Accounting	3
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3001	Practicum in Professional Accounting I	1
Select six hours of upper-division accounting from the following:		6
ACCT 3013	Federal Income Taxation	
ACCT 3113	Intermediate Accounting II	
ACCT 3203	Cost Accounting	
Total Hours		**18**

Other Requirements

- "C" or better in each accounting course, 12 of the 18 required accounting hours must be completed at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Accounting Systems: Cyber Audit, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**

Code	Title	Hours
Major Requirements		
Business Core [2]		
A grade of "C" or better must be earned in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Accounting Systems: CyberAudit Requirements		
A grade of "C" or better must be earned in each course and in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 3001	Practicum in Professional Accounting I	1
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3113	Intermediate Accounting II	3
ACCT 4233	Internal Auditing	3
or ACCT 4503	External Auditing	
ECON 2203	Introduction to Macroeconomics	3
MSIS 3293	Business Analytics Programming	3
MSIS 3333	Database Systems Development	3
MSIS 4003	Systems Analysis and Design	3
or MSIS 4523	Infrastructure Development	
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4673	Data Visualization	3
or MSIS 4263	Business Intelligence and Predictive Analytics	
Major Electives/Option Requirements:		
Select 3 hours from upper-division MSIS classes		3
Select 3 hours from upper-division ACCT classes		3
Hours Subtotal		**69**
Electives		
Select 8 hours [3]		8
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**8**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT with 'Q' designation		3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
MSIS 3293	Business Analytics Programming	3
'H' designated course		3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3001	Practicum in Professional Accounting I	1
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
MSIS 3333	Database Systems Development	3
	Hours	**14**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 3013	Fundamentals of Management (S)	3
3 hours of electives		3
	Hours	**16**
Spring		
ACCT 3113	Intermediate Accounting II	3
BADM 3113	Practical Business and Interpersonal Skills	3
BADM 3111	Professional Development for Business Success	1
'H' designated course		3
'LN' designated course		4
3 hours of electives		3
	Hours	**17**
Senior		
Fall		
ACCT 4233 or ACCT 4503	Internal Auditing or External Auditing	3
MSIS 4673 or MSIS 4263	Data Visualization or Business Intelligence and Predictive Analytics	3
MSIS 4003 or MSIS 4523	Systems Analysis and Design or Infrastructure Development	3
'D' designated course		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
MSIS 4123	Cybersecurity Systems Management	3
3 hours of upper division MSIS		3
3 hours of upper division ACCT		3
	Hours	**12**
	Total Hours	**120**

Accounting Systems: Data Analytics, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
Business Core [2]		
A grade of "C" or better must be earned in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Accounting Systems: Data Analytics requirements		
A grade of "C" or better must be earned in each course and in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 3001	Practicum in Professional Accounting I	1
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3113	Intermediate Accounting II	3
ECON 2203	Introduction to Macroeconomics	3
MSIS 3293	Business Analytics Programming	3
MSIS 3333	Database Systems Development	3
MSIS 4123	Cybersecurity Systems Management	3
MSIS 4263	Business Intelligence and Predictive Analytics	3
MSIS 4333	Data Wrangling	3
Major Electives/Option Requirements:		
Select 3 hours from upper-division MSIS classes		3
Select 3 hours from the following ACCT classes		3
ACCT 3013	Federal Income Taxation	
ACCT 3203	Cost Accounting	
ACCT 3603	Accounting Information Systems and Data Analytic Tools	
ACCT 4133	Advanced Accounting	
ACCT 4503	External Auditing	
ACCT 4233	Internal Auditing	
ACCT 4553	Ethics for Public Accountants	
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**11**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT with 'Q' designation		3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
MSIS 3293	Business Analytics Programming	3
'H' designated course		3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3001	Practicum in Professional Accounting I	1
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
MSIS 3333	Database Systems Development	3
	Hours	**14**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 3013	Fundamentals of Management (S)	3
3 hours of electives		3
	Hours	**16**
Spring		
ACCT 3113	Intermediate Accounting II	3
BADM 3113	Practical Business and Interpersonal Skills	3
BADM 3111	Professional Development for Business Success	1
'H' designated course		3
'LN' designated course		4
3 hours of electives		3
	Hours	**17**
Senior		
Fall		
MSIS 4333	Data Wrangling	3
MSIS 4263	Business Intelligence and Predictive Analytics	3
3 hours of upper division MSIS		3
'D' designated course		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
MSIS 4123	Cybersecurity Systems Management	3
3 hours from list of upper division ACCT courses in major		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Accounting, Systems, and Auditing, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Degree Requirements		
ACCT 2003	Survey of Accounting	3
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3001	Practicum in Professional Accounting I	1
ACCT 3603	Accounting Information Systems and Data Analytic Tools	3
Select 3 hours from the following:		3
ACCT 4233	Internal Auditing	
ACCT 4503	External Auditing	
Total Hours		**18**

Other Requirements

A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Accounting: External Reporting, Control, and Auditing, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
Business Core [2]		
A grade of "C" or better must be earned in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
External Reporting, Control and Auditing Requirements		
A grade of "C" or better must be earned in each course and in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
A GPA of 2.50 is required in these 44 hours of the School of Accounting Major Requirements.		
24 of these 44 hours, including 20 of 32 required 3000- and 4000-level accounting hours, must be in residence at OSU.		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3113	Intermediate Accounting II	3
ACCT 3203	Cost Accounting	3
ACCT 3603	Accounting Information Systems and Data Analytic Tools	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
MSIS 4123	Cybersecurity Systems Management	3
ACCT 3013	Federal Income Taxation	3
ACCT 3001	Practicum in Professional Accounting I	1
ACCT 4911	Practicum in Professional Accounting II	1
ACCT 4901	Advanced Accounting Tools and Technologies	1
Major Electives/Option Requirements:		
ACCT 4503	External Auditing	3
ACCT 4133	Advanced Accounting	3
ACCT 4553	Ethics for Public Accountants	3
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	3
Hours Subtotal		**74**
Electives		
Select 3 hours [3]		3

May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.

Hours Subtotal	**3**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated 'Q' except for MATH 1493)	3
'G' designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
'H' designated course		3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3001	Practicum in Professional Accounting I	1
MSIS 3223	Principles of Data Analytics	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**17**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3603	Accounting Information Systems and Data Analytic Tools	3
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
'D' designated course		3
	Hours	**14**
Spring		
ACCT 3113	Intermediate Accounting II	3
MGMT 3013	Fundamentals of Management (S)	3
ACCT 3203	Cost Accounting	3
BADM 3113	Practical Business and Interpersonal Skills	3
'LN' designated course		4
	Hours	**16**
Senior		
Fall		
ACCT 4133	Advanced Accounting	3
ACCT 3013	Federal Income Taxation	3
LSB 4323	Law of Commercial Transactions and Debtor-Creditor Relationships	3
ACCT 4503	External Auditing	3
ACCT 4901	Advanced Accounting Tools and Technologies	1
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3
MSIS 4123	Cybersecurity Systems Management	3
ACCT 4553	Ethics for Public Accountants	3
ACCT 4911	Practicum in Professional Accounting II	1

3 hours of electives	3
Hours	**13**
Total Hours	**120**

Accounting: Internal Reporting, Control and Auditing, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated "Q" (except for MATH 1493))	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
Business Core [2]		
A grade of "C" or better must be earned in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Internal Reporting, Control and Auditing Requirements		
A grade of "C" or better must be earned in each course and in ACCT 2003 (or ACCT 2103 and ACCT 2203).		
A GPA of 2.50 is required in these 44 hours of the School of Accounting Major Requirements.		
24 of these 44 hours, including 16 of 26 required 3000- and 4000-level accounting hours, must be in residence at OSU.		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3113	Intermediate Accounting II	3
ACCT 3203	Cost Accounting	3
ACCT 3603	Accounting Information Systems and Data Analytic Tools	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023	Elementary Statistics for Business and Economics (Q)	3
or STAT 2013	Elementary Statistics (Q)	
or STAT 2053	Elementary Statistics for the Social Sciences (Q)	
MSIS 4123	Cybersecurity Systems Management	3
ACCT 3013	Federal Income Taxation	3
ACCT 3001	Practicum in Professional Accounting I	1
ACCT 4911	Practicum in Professional Accounting II	1
ACCT 4901	Advanced Accounting Tools and Technologies	1
Major Electives/Option Requirements:		
ACCT 4233	Internal Auditing	3
FIN 4223	Investments	3
FIN 4333	Financial Modeling	3
Select 3 hours from the following:		3
ECON 3023	Managerial Economics	
ECON 3113	Intermediate Microeconomics	
ECON 3313	Money and Banking	
FIN 4113	Financial Markets and Institutions	
FIN 4213	International Financial Management	
FIN 4763	Financial Futures and Options Markets	

FIN 4843	Risk Management	
MSIS 2203	Computer Programming for Business	
MSIS 3333	Database Systems Development	
Hours Subtotal		**74**
Electives		
Select 3 hours [3]		3
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**3**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
MATH 1483	Mathematical Functions and Their Uses (Q) (or higher MATH designated A except for MATH 1493)	3
"G" designated course		3
	Hours	**16**
Spring		
ECON 2003	Microeconomic Principles for Business	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
"N" designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2023	Introduction to Entrepreneurship	3
ECON 2203	Introduction to Macroeconomics	3
STAT 2023 or STAT 2013 or STAT 2053	Elementary Statistics for Business and Economics (Q) or Elementary Statistics (Q) or Elementary Statistics for the Social Sciences (Q)	3
MGMT 3013	Fundamentals of Management (S)	3
	Hours	**16**
Spring		
ACCT 3004	Foundational Accounting and Data Skills	4
ACCT 3001	Practicum in Professional Accounting I	1
MSIS 3223	Principles of Data Analytics	3
FIN 3113	Principles of Finance	3
MKTG 3213	Marketing (S)	3
"H" designated course		3
	Hours	**17**
Junior		
Fall		
ACCT 3104	Intermediate Accounting I and Data Analysis	4
ACCT 3603	Accounting Information Systems and Data Analytic Tools	3
BADM 3111	Professional Development for Business Success	1
LSB 3213	Legal and Regulatory Environment of Business	3
"D" designated course		3
	Hours	**14**
Spring		
ACCT 3113	Intermediate Accounting II	3
ACCT 3203	Cost Accounting	3
BADM 3113	Practical Business and Interpersonal Skills	3
"H" designated course		3
"LN" designated course		4
	Hours	**16**
Senior		
Fall		
ACCT 3013	Federal Income Taxation	3
ACCT 4901	Advanced Accounting Tools and Technologies	1
ACCT 4233	Internal Auditing	3
FIN 4223	Investments	3
3 hours from 3 hour list in major		3
	Hours	**13**
Spring		
MGMT 4513	Strategic Management	3

MSIS 4123	Cybersecurity Systems Management	3
ACCT 4911	Practicum in Professional Accounting II	1
FIN 4333	Financial Modeling	3
3 hours of electives		3
	Hours	**13**
	Total Hours	**120**

School of Entrepreneurship

The 21st century is the age of entrepreneurship. It is a time of dynamic change where organizations must be faster, more adaptable and flexible, more aggressive and more innovative in order to survive. The program in entrepreneurship helps prepare students for the entrepreneurial age. Students are encouraged to recognize and develop their innate entrepreneurial potential, and to apply an entrepreneurial mindset to both their professional and personal lives. The program emphasizes the role of entrepreneurial attitudes and behaviors in a wide variety of contexts, including new start-up ventures, growth-oriented small firms, family firms, non-profit entities and public sector organizations. Students are further encouraged to apply entrepreneurial thinking and acting within other disciplines, from architecture and engineering to social work and theatre.

Entrepreneurship is approached as opportunity-driven behavior. It is a process where individuals put resources together in new and novel ways to create value. The value created can be for customers in conventional markets, or it can be social value created for the community. The program centers on helping students develop competencies that will enable them to be more entrepreneurial in a wide variety of contexts. Eleven core competencies are emphasized, including recognizing opportunity, assessing opportunity, mastering your creativity, leveraging resources, guerrilla skills, mitigating and managing risk, planning when nothing exists, innovation-developing ideas that work, building and managing social networks, the ability to maintain focus yet adapt, and implementation of something novel or new. A leading-edge entrepreneurship curriculum is built around these competencies.

As a field of study, entrepreneurship helps students see themselves as agents of change and better equips them to implement creative solutions to emerging opportunities in literally any organizational context. To foster these abilities, the program places considerable emphasis on experiential learning. Innovative experiential opportunities are built into each of the entrepreneurship courses at the undergraduate and master's levels. In addition, the School partners with the Riata Center for Innovation and Entrepreneurship, which manages an incubator, where students can start ventures, a campus-wide business Pitch & Poster Competition, and other student engagement initiatives.

In addition to graduate offerings, the program offers an undergraduate major and minor in entrepreneurship as well as a cross-campus program involving the integration of entrepreneurship into other disciplines (e.g., engineering, art, psychology).

Courses

EEE 1010 Creativity, Innovation and Entrepreneurship
Description: Examination of the creative process. Exploration of underlying premises of creativity, exposure to basic frameworks and concepts, and examination of obstacles to creativity. Emphasis on practical applications. Intended for students in Creativity, Innovation and Entrepreneurship Learning Community. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 1020 Creativity, Innovation and Entrepreneurship II
Description: Examination of the underpinnings of entrepreneurship and innovation as each relates to the creative process. An applied perspective is adopted in exploring the interfaces between creativity, innovation and entrepreneurship. Intended for students in Creativity, Innovation and Entrepreneurship Learning Community. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 1661 Free Enterprise Essentials
Description: An exploration of the free enterprise system on the basis of both wealth creation and societal justice.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2003 Imagination In Entrepreneurship
Description: Students will learn creative theory, creativity tools and design thinking tools in order to develop and strengthen their creative thinking skills. Students will apply their learning to discover, define, analyze, and present creative solutions to important current interdisciplinary issues.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2023 Introduction to Entrepreneurship
Description: Focuses on both the entrepreneurial mindset and the process of launching and growing a new business. Reviews opportunities, innovation, new value creation, business context, existing firms and any area of business or life that pertains to entrepreneurship.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2083 Entrepreneurship & Society
Description: In this unique course we study the relationship between entrepreneurship and society. Core questions are: How does society, politics, culture, etc. affect entrepreneurship? And how does entrepreneurship affect society, politics, and the economy? Students gain a uniquely broad understanding of entrepreneurship and political economy.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 2890 Introductory Honors Add-On for Entrepreneurship
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated entrepreneurship course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Honors Credit

EEE 3020 Business Plan Laboratory
Description: Provides any student regardless of background with a fundamental understanding of the logic and structure of a business plan and a knowledge of basic tools and concepts for putting together a great business plan for an original idea or concept. Applies to for-profit and non-profit ventures. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3023 Introduction to Entrepreneurial Thinking and Behavior
Prerequisites: EEE 2023.
Description: Overview of entrepreneurial thinking and behavior and its role in our lives. Examination of what it takes to start and sustain new concepts and ventures. Central focus is on the issues surrounding effective implementation of the entrepreneurial process across a variety of contexts. May not be used for degree credit with EEE 3673.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3031 Entrepreneurial Value Creation in Society
Description: This 1-hour seminar presents an intellectual framework for understanding the economic and ethical implications of the forces that promote or hinder the creation of value in society. In particular, students will engage in readings, discussions, and interactions with guest lecturers, related to topics such as: individual liberty and responsibility, economic freedom, fairness and equality, scarcity and property rights, intellectual property, competition and anti-competition, cronyism, authoritarianism, and globalization and free trade. The aforementioned topics will be examined and discussed within the context of governments, institutions, business entities, and consumers, and their collective impact on innovation, entrepreneurship, and advances in social well-being. This seminar should be of interest to students from diverse majors and backgrounds.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3033 Women and Minority Entrepreneurship
Description: The course covers race, gender, and ethnicity as factors that impact entrepreneurship. Students look at the theoretical underpinnings of minority and women's entrepreneurship and their opportunities, challenges, and strategies when creating ventures.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3673 Business Model Discovery
Description: Course teaches the fundamentals of testing the feasibility of a business idea and building an effective business model around a business concept. May not be used for degree credit with EEE 3023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 3890 Advanced Honors Add-On for Entrepreneurship
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated entrepreneurship course(s). This course adds a different intellectual dimension to the designated course(s). Offered for variable credit, 1-3 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Honors Credit

EEE 4010 Special Topics in Entrepreneurship
Description: Examination of entrepreneurship issues. Specific topics vary from semester to semester. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4080 Riata Internship Program
Prerequisites: Consent of the Director of the Riata Center for Entrepreneurship.
Description: Professionally supervised experience building career-related skills, interests and personal development while making valuable contacts and references. Allows testing skills in real life projects with host companies. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Entrepreneurship

EEE 4090 Study Abroad in Entrepreneurship
Prerequisites: Consent of the School of Entrepreneurship Department Head.
Description: Participation in a School of Entrepreneurship Study Abroad program. May not be used for degree credit with EEE 5090. Previously offered as EEE 3090. Offered for variable credit, 1-6 credit hours, maximum of 18 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4103 Entrepreneurship & the Economy
Description: Explore the role of entrepreneurship in the economy. Learn why the market economy is best understood not as a system or equilibrium but as an unfolding process with entrepreneurship as its driver. The course introduces the teachings of the Austrian school of economics, which focuses on economic understanding through reasoning and logic, not statistical analysis and mathematical modeling. Austrian economics recognizes entrepreneurial value creation as the core of the market process, that value lies in the eyes of the beholder, and that productive capital exists in complex structures intended to produce specific goods and services. Same course as ECON 4353. May not be used for degree credit with EEE 5103 or ECON 5353.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4113 Dilemmas and Debates in Entrepreneurship
Description: Designed around a series of critical dilemmas confronted by entrepreneurs when creating and growing a venture. Entrepreneurs explore with students the issues surrounding these dilemmas in a structured format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4123 Entrepreneurship and The Arts
Description: Introduces entrepreneurship as a way of thinking and acting within the arts, including fine art, theatre, music and design. Key entrepreneurial competencies are explored, including opportunity recognition, risk management, resource leveraging, and innovation. May not be used for degree credit with EEE 5123. Previously offered as EEE 3123.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4223 Entrepreneurial Marketing
Prerequisites: MKTG 3213.
Description: Examination of the roles of marketing in entrepreneurial ventures and entrepreneurship in the marketing efforts of any organization. Emphasis on marketing as it relates to risk management, resource leveraging and guerrilla approaches. Same course as MKTG 4263. May not be used for degree credit with EEE 5223 or MKTG 5223. Previously offered as EEE 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4253 International Entrepreneurship
Description: The course provides a survey of entrepreneurship under different global settings and the social, economic, cultural, and political challenges found in these settings. May not be used for degree credit with EEE 5253.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4263 Corporate Entrepreneurship
Prerequisites: EEE 3023 or instructor permission.
Description: Examination of the application of entrepreneurship concepts and behaviors within established organizations, assessment of factors contributing to a company's entrepreneurial orientation, and identification of ways to foster high levels of entrepreneurship within firms. No credit for students with credit in EEE 5263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4313 Emerging Enterprise Consulting
Description: Students nearing the end of their studies work in teams in addressing problems and opportunities within existing entrepreneurial ventures. Using an established methodology, teams work with local entrepreneurs in establishing priorities and producing tangible deliverables that solve business needs. No credit for students with credit in EEE 5313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4333 Launching a Business: The First 100 Days
Description: Addresses operational challenges in launching a new venture in its very formative stage. Attention is devoted to business formation, risk management, recordkeeping, go-to-market strategy, contracts, facilities, dealing with suppliers, and intellectual property, among other issues. May not be used for degree credit with EEE 5333. Previously offered as EEE 3333.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4403 Social Entrepreneurship
Description: An examination of the application of entrepreneurship concepts and principles in addressing vexing social needs such as hunger, homelessness, environmental degradation, disease, domestic violence and inadequate access to education. Exploration of unique challenges in and approaches for developing and implementing viable business models for social ventures. May not be used for degree credit with EEE 5403. Previously offered as EEE 3403.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4503 Designing, Prototyping, Testing
Description: This course provides students' a hands-on experience in making things. Students conceptualize, design, prototype, manufacture and sell a new product. The class exposes students to using 3D printers along with other makerspace tools. May not be used for degree credit with EEE 5503. Previously offered as EEE 3503.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Entrepreneurship

EEE 4533 Growing Small and Family Ventures
Prerequisites: EEE 3023 or Instructor permission.
Description: Exploration of unique challenges involved when growing small and family-owned ventures. The life stages of emerging enterprises are examined. Issues addressed include resource needs, skill requirements, functional area development, and work-life balance. May not be used for degree credit with EEE 5513. Previously offered as EEE 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4603 Entrepreneurship Empowerment in South Africa
Prerequisites: Instructor permission required.
Description: Introduction to the supporting emerging enterprises assessment model. Includes focused attention on consulting within all the functional areas of an emerging enterprise operating under conditions of adversity. Periodic guest lectures by subject matter experts. Exposure to the local customs, business environment, and culture of entrepreneurs in a South African context. No credit for students with credit in EEE 5603.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4610 Entrepreneurship Practicum
Prerequisites: EEE 3023 and instructor permission.
Description: Transfer of knowledge from entrepreneurship course work into practice through hands-on experiences, such as business development consulting projects, management of a venture capital fund and creation of a student-owned business. Course previously offered as MGMT 4610. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Lecture: 1-6 Contact: 1-6
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4653 Venture Capital
Description: Approaches to raising and managing working capital in emerging enterprises. Examination of the many sources of financing for start-up and early stage ventures. Attention devoted to determining financial needs of new ventures and formulating, determining valuations and formulating deal structures. Course previously offered as MGMT 4653.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4663 Applied Creativity & Design Thinking
Description: Exploration of creativity and ideation as they relate to entrepreneurship. Perspectives on opportunity discovery and assessment are examined. Theoretical and conceptual foundations for the application of creativity to business problem solving are investigated. May not be used for degree credit with EEE 5663. Previously offered as EEE 3663.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4703 Project Management for Entrepreneurship
Description: Understanding invaluable basic project management skills for startup entrepreneurs and innovators within existing organizations (intrapreneurs) and to successfully manage projects in general. No credit for students with credit in EEE 5703.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

EEE 4813 The Entrepreneur: Hero or Villain (H)
Description: An exploration of the entrepreneur in both historic and contemporary settings through the lens of ideas, events, and fine arts. May not be used for degree credit with EEE 5813. Previously offered as EEE 3813.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship
General Education and other Course Attributes: Human Heritage & Cultures

EEE 4863 Developing Innovative Ideas
Prerequisites: Permission of instructor.
Description: Course teaches the fundamentals of testing the feasibility of a business idea and building an effective business model around a business concept.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Entrepreneurship

Undergraduate Programs

- Entrepreneurship, BSBA (p. 2879)

Graduate Programs

The School of Entrepreneurship offers work leading to the Master of Science in Entrepreneurship degree, including both a residency and online program. In addition, concentration in Entrepreneurship is offered as part of the Master of Business Administration. A PhD in business administration with concentration in entrepreneurship is available to prepare students for careers in academia.

The Master of Business Administration (MBA) Degree with Entrepreneurship Concentration

(See "Business Administration (p. 2914)".)

Master's in Entrepreneurship

The Master's in Entrepreneurship (MSE) provides a rigorous immersion into the nature of entrepreneurship and the entrepreneurial process. Core content is coupled with a strong commitment to experiential learning. Students are provided the opportunity to start a venture while in the program. The program is a component of the university-wide entrepreneurship emphasis at Oklahoma State University. It is targeted to students with a passion for entrepreneurship in for-profit, non-profit and public sector contexts.

The master's program consists of 33 credit hours of coursework and can be completed in one calendar year. The application for admission to the program requires:

1. Bachelor's degree,
2. Proposal for a venture,
3. GMAT,
4. Entrepreneurial and other work experience (recommended but not required), and
5. three letters of recommendation.

Based on this review, a personal interview is arranged with selected candidates and then a final acceptance decision is made. Applicants are responsible for ensuring all relevant materials are submitted to the School prior to deadlines. An online version of the program is also available.

The Doctor of Philosophy Degree

The PhD in business administration with concentration in entrepreneurship is primarily focused on producing scholars who will be thought leaders in the discipline of entrepreneurship. The program prepares students primarily for careers in academia. Coordinated by the School of Entrepreneurship, students are given an intense exposure to theory and research methods.

The doctoral program involves sixty credit hours beyond the master's degree, of which approximately forty-two hours are coursework, depending upon the student's background, the remaining hours are associated with dissertation work. It is a four-year program, with two years devoted to coursework, followed by comprehensive exams and a dissertation proposal, and then the writing and defending of the dissertation. Students complete fifteen hours of core doctoral seminars in entrepreneurship and management, twelve hours of statistics and research methods courses, nine hours of doctoral or equivalent hours in a minor field, and six hours of approved doctoral-level or equivalent electives. Students typically minor in such fields as psychology, sociology, anthropology, public policy or finance.

Doctoral students are expected to publish while in the program, and also to teach entrepreneurship courses. Faculty mentors work closely with students on research projects while they are in the program, initially involving the student in ongoing research projects, and ultimately working on projects initiated by the student. Students are expected to develop and refine their research interests over the first two years of the program, culminating in the identification of a dissertation topic. The School of Entrepreneurship, with a world-class cadre of entrepreneurship researchers, is well-positioned to support a wide range of topical areas that fit the student's interests.

Outstanding individuals with master's degrees in any field of study may apply. The application for admission to the program is evaluated based on the following:

1. undergraduate and graduate grade-point averages,
2. the student's score on the Graduate Management Admission Test (GMAT),
3. a two- to three-page statement describing career goals, academic interests and research questions that intrigue the applicant,
4. three letters of recommendation, and
5. evidence of research potential.

Based on this review, a personal interview is arranged with selected candidates, and then a final acceptance decision is made. Applicants are responsible for ensuring all relevant materials are submitted to the School prior to deadlines.

Certificates

- Starting and Growing a New Business, UCRT (p. 2881)

Minors

- Entrepreneurship (EEE), Minor (p. 2878)

Faculty

Bruce Barringer, PhD—Professor and Head
Professors: Kristen Madison, PhD; Curtis B. Moore, PhD; G. Tyge Payne, PhD; Matthew Rutherford, PhD
Associate Professors: Per Bylund; PhD
Assistant Professors: Kevin McSweeney, PhD; Victoria Yates, PhD
Professor of Professional Practice: Jonathan Butler, PhD; Richard Gajan, MBA; David Thomison, MBA; Marc Tower, EdD; Craig Watters, PhD

Entrepreneurship (EEE), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 15

Six of the nine hours for Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
EEE 2023	Introduction to Entrepreneurship	3
EEE 3673	Business Model Discovery	3
Select 9 hours of the following:		9
ACCT 2003	Survey of Accounting	
AGEC 1113	Introduction to Agricultural Economics (S)	
AGEC 3213	Quantitative Methods in Agricultural Economics	
AGEC 3403	Agricultural Small Business Management	
AGEC 3603	Agricultural Finance	
AGEC 4403	Advanced Farm and Ranch Management	
BAE 4012	Senior Engineering Design Project I	
BAE 4023	Senior Engineering Design Project II	
CHE 4124	Chemical Engineering Design I	
CIVE 4043	Senior Design	
ECEN 4024	Capstone Design	
ECON 2103	Introduction to Microeconomics (S)	
EEE 2083	Entrepreneurship & Society	
EEE 3033	Women and Minority Entrepreneurship	
EEE 4010	Special Topics in Entrepreneurship	
EEE 4080	Riata Internship Program	
EEE 4103	Entrepreneurship & the Economy	
EEE 4113	Dilemmas and Debates in Entrepreneurship	
EEE 4223	Entrepreneurial Marketing	
EEE 4263	Corporate Entrepreneurship	
EEE 4313	Emerging Enterprise Consulting	
EEE 4333	Launching a Business: The First 100 Days	
EEE 4403	Social Entrepreneurship	
EEE 4533	Growing Small and Family Ventures	
EEE 4610	Entrepreneurship Practicum	
EEE 4653	Venture Capital	
EEE 4663	Imagination in Entrepreneurship	
FIN 3113	Finance	
IEM 3503	Engineering Economic Analysis	
IEM 3513	Economic Decision Analysis	
IEM 3523	Engineering Cost Information and Control Systems	
IEM 4913	Senior Design Projects	
MAE 4344	Design Projects	
MET 4123	Senior Design II	
MSIS 2103	Business Data Science Technologies	
Total Hours		**15**

Other Requirements

- Maximum of 6 non-EEE course credit hours.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Entrepreneurship, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A GPA of 2.20 is required in these 66 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Major Requirements		
A GPA of 2.00 is required in these 36 hours of Entrepreneurship major requirements		
18 of these 36 hours must be in residence at OSU		
EEE 2083	Entrepreneurship & Society	3
EEE 3673	Business Model Discovery	3
EEE 4223	Entrepreneurial Marketing	3
EEE 4663	Applied Creativity & Design Thinking	3
EEE 4653	Venture Capital	3
Select 9 hours of the following:		9
EEE 3033	Women and Minority Entrepreneurship	
EEE 4090	Study Abroad in Entrepreneurship	
EEE 4333	Launching a Business: The First 100 Days	
EEE 4403	Social Entrepreneurship	
EEE 4533	Growing Small and Family Ventures	
EEE 4010	Special Topics in Entrepreneurship	
EEE 4080	Riata Internship Program	
EEE 4103	Entrepreneurship & the Economy	
EEE 4113	Dilemmas and Debates in Entrepreneurship	
EEE 4263	Corporate Entrepreneurship	
EEE 4313	Emerging Enterprise Consulting	
EEE 4610	Entrepreneurship Practicum	
Select an additional 12 upper-division hours from fields in the Spears School of Business		12
Hours Subtotal		**66**
Electives		
Select 11 hours [3]		11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC		
Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours		
Hours Subtotal		**11**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
EEE 2083	Entrepreneurship & Society	3
MGMT 3013	Fundamentals of Management (S)	3
ECON 2003	Microeconomic Principles for Business	3
'H' designated course		3
	Hours	**16**
Spring		
EEE 3673	Business Model Discovery	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3213	Marketing (S)	3
3 hours from 9 hour list in major		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
EEE 4223	Entrepreneurial Marketing	3
EEE 4663	Applied Creativity & Design Thinking	3
'D' designated course		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
3 hours from 9 hour list in major		3
3 hours from 9 hour list in major		3
'LN' designated course		4
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
EEE 4653	Venture Capital	3
3 hours of upper division business		3
3 hours of upper division businses		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Starting and Growing a New Business, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 16

Code	Title	Hours
EEE 3673	Business Model Discovery	3
EEE 4333	Launching a Business: The First 100 Days	3
EEE 4223	Entrepreneurial Marketing	3
or EEE 4663	Imagination in Entrepreneurship	
EEE 4113	Dilemmas and Debates in Entrepreneurship	3
EEE 4533	Growing Small and Family Ventures	3
EEE 4010	Special Topics in Entrepreneurship (Riata Center for Innovation and Entrepreneurship Experience)	1
Total Hours		**16**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

School of Marketing and International Business

The School of Marketing and International Business supports two primary undergraduate majors in the Spears School of Business, (1) **Marketing** and (2) **International Business**. In addition, the department is home to the Center for Sales and Service Excellence and the associated **Certificate in Sales and Service Excellence**. Marketing is an exciting field of study leading to a variety of job opportunities both in the private sector and in not-for-profit organizations. In addition, it provides an excellent career path to top management within an organization. Because almost every business has international operations or is affected by events, competitors, and conditions in the global economy, a degree in International Business can open career opportunities both internationally as well as in the United States.

Marketing

Companies become successful by delivering products and services that satisfy their customers' needs. That sounds easy—but getting to that point requires a lot of hard work, much of which is performed by marketing professionals. Marketing is one of the most popular majors on campus, and for good reason: Everyone in an organization is involved in marketing, even if "marketing" isn't in their job titles! (We explain why everyone is a marketer in the basic marketing course in the Spears core curriculum.)

Marketing professionals perform many activities within organizations. They identify buyers' needs (often through marketing research), develop and manage products/services to meet those needs, develop and manage the supply chain, set prices, communicate with current and potential buyers in a variety of different ways (including professional selling, advertising, and so on), develop and implement service processes, and lots more. In addition, they recruit, train, and manage employees in all these areas. The buyers may be individuals (business-to-consumer marketing, B2C) or organizations (business-to-business marketing, B2B). In many ways, "marketing" is synonymous with "doing business." A business can't last long if it doesn't sell anything. And it won't sell anything if it can't help buyers satisfy their needs.

Marketing professionals enjoy careers in many different areas—professional selling, communications management, supply chain management, product and brand management, pricing, recruiting, customer service, and marketing research and analytics. Marketing professionals work across a wide variety of industries and not-for-profit organizations.

OPTIONS: Marketing is a broad area of study. We have designed the marketing major so that students may choose to get a taste of many different areas or to focus their studies in more specific areas.

- **Marketing Major (general).** For students who want the widest understanding of marketing, we offer the general marketing major degree program. This program offers the greatest degree of flexibility in terms of coursework.
- **Marketing: Option in Professional Selling and Sales Management.** Many (or most) marketing students pursue careers in which they get to interact and form relationships with buyers, clients, or others who purchase products and services from their companies. Opportunities are everywhere for professional salespeople or those who want to work in a retail setting. These careers typically offer high earning potential and are likely the best place to enter an organization for those who want to really understand customers' needs and how the products and services of a company can satisfy those needs. Plus, being able to relate to customers and form relationships with them are skills that are not easily automated and will always be in demand. Students pursuing the Professional Selling and Sales Management option may also be interested in applying to participate in the ***Certificate in Sales and Service Excellence*** program (see below).
- **Marketing: Option in Marketing Research and Analytics.** Students who are interested in gaining insights into what buyers want, how they respond to certain companies, products, ad campaigns, and so on (marketing research) or who would enjoy working with a company's existing internal or external data to answer important questions or identify trends (marketing analytics) might select this option. Although students choosing this path are generally more quantitatively oriented, the coursework is not heavy with statistics and methods. (Interested students can pick up those aspects in the Spears School's highly regarded master's degree program in Business Analytics and Data Science.)
- **Marketing: Option in Marketing Communications Management.** Another important role that falls in the marketing domain involves communicating with potential buyers. Students interested in managing the advertising or public relations function for a company (or working in an agency) can select this option. Relevant coursework might include courses on promotional management, social media marketing, digital marketing, and so on.
- **Marketing: Option in Sports Marketing and Revenue Generation.** The Sports Marketing Option provides students with a unique blend of marketing principles and sports industry knowledge, preparing them for a dynamic career. Students learn to develop and implement marketing strategies, social media, sports events, and understand consumer behavior specific to sports. This option often includes practical experiences such as internships with sports teams, agencies, and media outlets, giving students hands-on experience and networking opportunities.
- **Marketing: Option in Supply Chain Management.** The Supply Chain Management Option equips students with the skills to oversee and optimize the flow of goods and services from production to consumption. This option covers key areas such as logistics, inventory management, and strategic sourcing, preparing graduates for dynamic roles in various industries. By combining theoretical knowledge with practical applications, students learn to enhance efficiency and reduce costs in supply chain operations.

CERTIFICATE IN SALES AND SERVICE EXCELLENCE: The ***Center for Sales and Service Excellence*** is housed within the School of Marketing and International Business. The Center is designed to provide instruction to students and promote original scholarly research in the area of organizational frontline marketing management. Interactions between frontline employees and their customers form the building blocks from which businesses are made. Many undergraduate students join organizations at entry-level positions where the focus is on customer-related activities, including sales, retailing and customer service. Students who apply and are accepted into the Certificate in Sales and Service Excellence program get specialized training, can participate in regional and/or national sales competitions, and interact with representatives of our Industry Partner companies on a regular basis. Such training will benefit not only students who plan on professional selling careers or customer service, but also those who intend to practice law, medicine, or own their own businesses. Successfully managing

customer interactions forms the foundation for success regardless of industry.

International Business

The **International Business** degree program is a cross-disciplinary program of study that provides the foundation of business and how it intersects with culture, diversity, and language. The program has the flexibility to be tailored to an individual student's specific interests. One of the biggest advantages of the program is its focus on helping students become culturally aware and able to detect important differences in how business is conducted in different regions of the world. International business majors might choose to focus on specific areas of the world by including geography, history, or political science courses relative to those areas. International Business majors can also increase their knowledge and abilities of a specific business discipline by adding a second business major, minor, or certificate (e.g., the Certificate in Sales and Service Excellence).

Many international business majors take advantage of the opportunities afforded by Oklahoma State University to either study abroad or take an international internship. The Cagle Center is the Spears School of Business' launching pad for taking short-term, faculty-led study abroad trips to exciting locations such as China, England, France, Greece and many other locales. OSU's study abroad office, located in the Student Union, is a great place to get information about all of the long-term study opportunities available. What surprises many students is the amount of financial assistance available. When you stop by the Cagle Center or the OSU study abroad office, make sure to ask about scholarship and grant programs.

Courses

MKTG 3112 Marketing
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3213 Marketing (S)
Prerequisites: Minimum of 45 credit hours.
Description: Marketing strategy and decision-making. Consumer behavior, marketing institutions, competition and the law.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: Society & Human Behavior

MKTG 3223 Supply Chain Management
Prerequisites: MKTG 3213.
Description: An economic and operational analysis of the physical flow of goods and materials. A system interpretation of marketing channels. Previously offered as MKTG 4223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3311 Managing your Personal Brand: Name, Image, & Likeness
Description: Learn the marketing and business concepts necessary for elevating a personal brand, social media influence and entrepreneurial earning power. Students will gain knowledge about marketing theory, strategy and tactics of successful branding with emphasis on audience engagement, generating followers, storytelling, and methods for leveraging your position. Students will also gain insights from current professional athletes to learn proven best practices.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3313 Personal Marketing and Professional Development
Prerequisites: MKTG 3213.
Description: The purposes of this course are (1) to provide an understanding of the role of marketing as applied to the individual student and (2) to provide students basic skills necessary for a successful business career. The course will make extensive use of outside speakers (e.g. professional trainers, alumni, recruiters, professors) covering a broad range of topics. In addition, the course will have a strong experiential dimension (both within and outside the classroom). Previously offered as MKTG 2313.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3323 Consumer and Market Behavior
Prerequisites: MKTG 3213.
Description: Qualitative and quantitative analyses of the behavior of consumers; a marketing consideration of the contributions of economics and the behavioral disciplines to consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3333 Nonprofit Marketing
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge with attention given to those concepts and methods used in nonprofit marketing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3433 Promotional Strategy
Prerequisites: MKTG 3213.
Description: Promotional policies and techniques and their application to selling problems of the firm.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3473 Professional Selling
Prerequisites: MKTG 3213.
Description: Skills to understanding the professional personal selling process. Strong emphasis on the communications function of personal selling. Lecture sessions combined with experiential exercises and role playing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3511 Sales Practicum
Prerequisites: MKTG 3213, MKTG 3513 or concurrent enrollment in MKTG 3513.
Description: Students use their work experience, and other resources, to gain a practical understanding of sales marketing. Students must have a sales position (paid or volunteer) where they work at least 100 hours over the course of the semester.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3611 Retailing Practicum
Prerequisites: MKTG 3213, MKTG 3613 or concurrent enrollment in MKTG 3613.
Description: Students use their work experience, and other resources, to gain a practical understanding of Retail Marketing. Students must have a retail position (paid or volunteer) where they work at least 100 hours over the course of the semester.
Credit hours: 1
Contact hours: Contact: 1 Other: 1
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3613 Retailing Management
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge, with attention given to those concepts and methods which provide the necessary foundation for a retailing manager.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3653 Marketing Analytics
Prerequisites: MKTG 3213.
Description: Students will learn how to turn marketing data into useful information, and how to use this information to make marketing decisions. Using basic software, students will learn to identify patterns, display the patterns for useful presentation, and base managerial marketing decisions on the analysis. Tools and software are user-friendly and widely used in business. (No programming or equations are required.)
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3713 Sports Marketing
Prerequisites: MKTG 3213.
Description: Applied marketing knowledge with attention given to those concepts and methods used in sports marketing.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3813 Business to Business Marketing Management
Prerequisites: MKTG 3213.
Description: A strategic overview of the marketing of products and services to business, government and not-for-profit organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 3873 Marketing or International Business Internship
Prerequisites: MKTG 3213 and two other marketing classes and must be marketing or international business major and instructor approval.
Description: Students will complete an internship with a private business, NGO, or governmental organization. Students will communicate the lesson learned from this experience. Graded on a pass-fail basis.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 3993 International Business (G)
Description: Development of international business strategy based on the integration of economic, accounting, financial, management and marketing concepts. Previously offered as BADM 3713.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: International Dimension

MKTG 4053 Study Abroad: Contemporary Global Impacts in Marketing & International Business
Description: A study of business in a country and region that will provide an integrated approach to the rich cultural, commercial, historical, technological, political, economic, and religious issues. The country's role as a political and economic power will be examined. Comparisons of technology, policies, and economies will be made, as well as investigating hurdles and synergies to doing business between that country and the U.S.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4093 Current Topics International Business
Prerequisites: MKTG 3993.
Description: In this course, students will become familiar with the large-scale changes in the international business environment that are currently taking place and the possible implications of these changes for corporations. These include globalization of markets, labor and skill mobility, automation and future of jobs, and sustainability. The course uses readings and in-class discussions of the current trends and issues in international business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4123 Influencer Marketing
Prerequisites: MKTG 3213.
Description: Influencer marketing involves using an individual's name, image, likeness, reputation, or personal communication to sell ideas, products, and/or services. Athletes, celebrities, podcasters, musicians, and many others can become successful influencers. The rise of digital communication and marketing tools has greatly heightened the presence and importance of influencer marketing. In this course, students learn influencer marketing strategies and best practices for capitalizing on opportunities to monetize influencer opportunities.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4213 Advanced Supply Chain Management
Prerequisites: MKTG 3223
Description: Ever wonder how your favorite companies like Amazon, Starbucks, Walmart and FedEx get things from one end of the country to the other overnight? This course will answer such puzzling questions by providing students with an overview of supply chain management. Students in this course will learn how technology and managerial ingenuity come together to create supply chain excellence.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4233 Purchasing & Strategic Sourcing in Supply Chain Management
Prerequisites: MKTG 3213
Description: This course is designed to provide an introduction to the field of purchasing and supply management. It covers topics such as how supply is organized within organizations, the standard acquisition process, purchasing-related information systems, cost management tools, negotiation strategies, supplier selection, metrics, purchasing capital goods, purchasing services, outsourcing, buyer-supplier relationships, and purchasing strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4243 Transportation Modalities and Logistics Management in the Supply Chain
Prerequisites: MKTG 3213
Description: This course will consist of an enriching approach of teaching transportation and logistics strategies in Supply Chain Management, while taking a deeper dive into technology, sourcing, transportation, warehousing, materials handling and returns. Students will also be provided unique opportunities to have in person tours and face to face discussions with supply chain leaders in multiple businesses.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4263 Entrepreneurial Marketing
Prerequisites: EEE 3023. MKTG 3213, and completion of business core classes or instructor permission.
Description: Examination of the roles of marketing in entrepreneurial ventures and entrepreneurship in the marketing efforts of any organization. Emphasis on marketing as it relates to risk management, resource leveraging and guerrilla approaches. May not be used for degree credit with EEE 5223 or MKTG 5223. Same course as EEE 4223. Previously offered as MKTG 3263.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4333 Marketing Research
Prerequisites: MKTG 3213 and MKTG 3323 and MSIS 2103.
Description: Basic research concepts and methods. Qualitative and quantitative tools of the market researcher.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4343 Brand Marketing
Prerequisites: MKTG 3213 and MKTG 3323.
Description: Examines the broad topic of brand marketing. Consumers, competitors, the media, and the government all focus on the brand as the basic unit of marketing. Thus some of the most important and exciting elements of modern business involve conceiving, building, and marketing the brand. Important issues such as building and measuring brand equity, brand positioning, brand names and logos, and global branding will be discussed.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4443 Social Issues in the Marketing Environment (D)
Prerequisites: MKTG 3213.
Description: Social and legislative considerations as they relate to the marketplace.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing
General Education and other Course Attributes: Diversity

MKTG 4473 Advanced Professional Selling
Prerequisites: MKTG 3213 and MKTG 3473 and Instructor Permission.
Description: The course builds upon the introductory sales class providing students with advanced skills for professional selling. Emphasis will be placed on practical applications through role play of a complete sales process from initial prospecting to closing the sale with high customer satisfaction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4513 Sales Management
Prerequisites: MKTG 3213.
Description: Sales planning and control, organization of the sales department, developing territories, motivating salespersons and control over sales operations. Previously offered as MKTG 3513.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4543 Social Media Strategies
Prerequisites: MKTG 3213.
Description: This class will focus on ways to build brand awareness and customer loyalty on a low budget. Topics covered will be social media, blogging, events, email marketing; analytics and more. May not be used for degree credit with MKTG 5543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4550 Problems In Marketing
Prerequisites: MKTG 3213.
Description: Problems in marketing. Specific topics vary from semester to semester. Previously offered as MKTG 4433. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-9
Contact hours: Contact: 1-9 Other: 1-9
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 4553 International Marketing
Prerequisites: MKTG 3213.
Description: The conceptual framework for marketing into and from foreign countries. The development of action-oriented strategies with emphasis on the uncontrollable factors that affect marketing decisions in an international setting.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4613 Content Marketing Strategy
Prerequisites: MKTG 3213.
Description: At the intersection of development, creativity, and marketing, content marketing strategy is an art that requires an understanding of many different disciplines. Effective marketing content must be prepared strategically for a variety of different platforms: video, podcasting, online, mobile, social media, email marketing, and more. In Content Marketing Strategy, students learn the most common forms of content creation as well as the methods to drive website traffic and subsequent new business.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4623 Marketing Design Essentials
Description: Learn practical tools and tips for putting together promotional campaigns and creating promotional assets for a wide range of businesses. Students will learn how to apply marketing and branding theory with design and get hands-on experience in putting creative promotional designs into print and digital form. This class will cover software such as Photoshop, InDesign and Illustrator. Students will learn content creation tools and will create a promotional kit by the end of the semester. May not be used for degree credit with MKTG 5623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4683 Managerial Strategies in Marketing
Prerequisites: A minimum of twelve credit hours in marketing.
Description: Analysis of the marketing management decision process; marketing opportunity analysis, strategy development, planning and integration with corporate strategy. Students may not take both MKTG 4683 and MKTG 4693 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4693 Marketing Strategy and Customer-Employee Interactions
Prerequisites: A minimum of twelve credit hours in marketing.
Description: Analysis of the marketing management decision process with respect to the customer-employee interface; management of frontline employees; marketing opportunity analysis, strategy development, planning and integration with corporate strategy. Students may not take both MKTG 4683 and MKTG 4693 for degree credit.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4713 Advanced Sports Marketing
Prerequisites: MKTG 3713
Description: This course will focus on exploring advanced marketing theories related to topics such as ethics and social responsibility, international marketing, marketing research and information systems, data analytics, consumer behavior, product and logistics management, branding and brand management, sales management, promotions, social media and networking, destination marketing, and evaluating performance, while also covering pricing structures and strategies, experiential marketing, new digital marketing communications and technology, emotional intelligence, and exploring case studies.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4773 Services Marketing
Prerequisites: MKTG 3213.
Description: Conceptual and managerial tools for students who intend to be involved with the marketing of services. Characteristics of services, listening to customers, managing customer expectations, conceiving and creating service breakthroughs, service quality, positioning of services, managing demand and supply, creating a strategic service vision and designing a customer focused organization to create and retain customers.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4813 Sports Sales and Revenue Generation
Description: The ability to generate sources of revenue is one of the most important skills for individuals working in the sports industry. This course provides an in-depth understanding of the many ways in which sports organizations generate revenue and will teach students the practical concepts they will need for success. The course provides a comprehensive approach that can be applied in professional sport, intercollegiate and interscholastic athletics, other amateur sports, and organizations in recreational settings.
Credit hours: 3
Contact hours: Lecture: 2 Contact: 3 Other: 1
Levels: Undergraduate
Schedule types: Discussion, Combined lecture & discussion, Lecture
Department/School: Marketing

MKTG 4850 Applied Marketing Studies
Prerequisites: 12 credit hours of marketing and consent of instructor.
Description: Structured internship or field project with supporting academic study. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 4973 New Product Development
Prerequisites: MKTG 3213, MKTG 4333.
Description: The elements involved in creating and marketing a successful new product. Qualitative and quantitative methods will analyze data collected from focus groups, including surveys to test a new product concept.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4983 Data Base Marketing
Prerequisites: MKTG 3213, MKTG 3323, MSIS 2103 or consent of instructor.
Description: An information-driven process to develop, test, implement, measure, and adopt customized marketing programs and strategies.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 4993 Digital Marketing
Prerequisites: MKTG 3213.
Description: This course will give students a practical understanding of digital marketing, equipping them with the skills to perform key, digital marketing tasks such as SEO and pay-per-click advertising. At the end of the course, students will understand how a company can use the internet to promote its brand and market its products.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5133 Marketing Management
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Consideration at an advanced level of the major elements of marketing from the point of view of the marketing executive. Emphasis on problem solving and decision making; using an interdisciplinary approach. Development of an integrated, comprehensive marketing strategy..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5213 Services Marketing
Prerequisites: MKTG 5133.
Description: Services and services marketing with emphasis on services research and services management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5220 Seminar in Marketing
Prerequisites: MKTG 5133.
Description: Selected topics in marketing. Industrial marketing, product management, strategic marketing planning, international marketing, and services marketing. Offered for variable credit, 1-9 credit hours, maximum of 9 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 5223 Entrepreneurial Marketing
Prerequisites: Admission to MBA program or instructor permission.
Description: Interplay of entrepreneurship concepts and marketing concepts, including the role of marketing in entrepreneurial ventures, and the role of entrepreneurship in a firm's marketing efforts. Emphasis is placed on how to address the significant changes taking place in markets and the modern marketing function. May not be used for degree credit with MKTG 4263 or EEE 4223. Same course as EEE 5223.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5233 Global Competitive Environment
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Development of a global business strategy for the organization. Issues of highly diversified markets and business environments, global competition, financial markets, and complex organizational relationships. Same course as INTL 5233. Previously offered as MBA 5233.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5243 Base SAS Programming for Database Marketing
Prerequisites: Admission in any graduate program.
Description: Learn basics of SAS programming, data manipulation in SAS environment and applications of SAS tools in the context of database marketing and business management. Class will help students prepare for Base SAS Programming and Advanced SAS Programming Certification Exam.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5253 Advanced SAS Programming for Marketing Analytics
Prerequisites: MKTG 5243 or consent of instructor.
Description: Advanced SAS techniques to create more efficient and powerful SAS programs for analyzing marketing and business data. Extensive use of SQL, Macro along with Arrays, Hash objects and memory control within SAS environment, Helps students prepare for Advanced SAS Programming Certification Exam.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5313 Marketing Research Methodology
Prerequisites: MKTG 5133.
Description: Research methodology applied to marketing problems. Measurement, survey research, experimentation, and statistical analysis of data.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5333 Marketing for Nonprofit Organizations
Description: Identify key challenges, and discuss how to apply fundamental marketing principles in order to solve these challenges within a wide range of nonprofit organizations.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5443 Social Issues in Marketing Environment
Description: Social and Legislative considerations as they relate to the Marketplace. Develop an understanding of fundamental social marketing concepts and theories. Enhance your critical thinking and ethical analysis related to marketing practices. Obtain hands-on experience designing a social marketing plan. Strengthen problems solving, communications, and teamwork skills.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5500 Current Topics in Marketing Analytics
Prerequisites: Admission in any graduate program in business school or consent of instructor.
Description: Current topics in marketing analytics such as web analytics, marketing optimization analytics, high-performance analytics, visual analytics, marketing campaign analytics. Offered for variable credit, 1-6 credit hours, maximum of 9 credit hours.
Credit hours: 1-6
Contact hours: Contact: 1-6 Other: 1-6
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing
Additional Fees: Business Graduate Program fee of $6 per credit hour applies.

MKTG 5543 Social Media Strategies
Description: This class will focus on ways to build brand awareness and customer loyalty on a low budget. Topics covered will be social media, blogging, events, email marketing, analytics and more. May not be used for degree credit with MKTG 4543.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5553 International Marketing Strategy
Prerequisites: MKTG 5133.
Description: An analysis of marketing in the global environment. Environmental effects on international marketing management and corporate strategy decisions..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5613 Seminar in Consumer Behavior
Prerequisites: MKTG 5133 or consent of instructor.
Description: Psychological, sociological, and anthropological theories related to consumer decision processes. Special emphasis on current empirical research in consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5623 Marketing Design Essentials
Description: Learn practical tools and tips for putting together promotional campaigns and creating promotional assets for a wide range of businesses. Students will learn how to apply marketing and branding theory with design and get hands-on experience in putting creative promotional designs into print and digital form. This class will cover software such as Photoshop, InDesign and Illustrator. Students will learn content creation tools and will create a promotional kit by the end of the semester. May not be used for degree credit with MKTG 4623.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5633 The External Environment of Business
Prerequisites: Admission to a SSB graduate program or consent of MBA director.
Description: Social, ethical, regulatory and political forces as they impact on the organization. Attention to organizational response to these forces through management policies and strategies. Previously offered as BADM 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5733 Introduction to Marketing Analytics
Prerequisites: Admission in MBA program or consent of instructor.
Description: Analytic tools including exploratory and graphical techniques, variable associations and correlations, regression, ANOVA and other related modeling techniques to improve managerial decision making. No degree credit for students with credit in BAN 5733 and MKTG 5983.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5743 Advanced Marketing Analytics
Prerequisites: MKTG 5733 or consent of instructor.
Description: Advanced analytic tools such as neural networks, decision trees, classification and prediction models to generate deeper customer insights and to improve managerial decision making. No degree credit for students with credit in BAN 5743 and MKTG 5963.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5883 Advanced Data Mining Applications
Prerequisites: MKTG 5963 or permission from instructor.
Description: Use advanced data mining tools such as clustering, Self Organizing maps (SOM) and Kohonen Networks, two-stage models, customer attrition and churn models via survival analysis, credit scoring models, etc. In the context of common applications in business management. No degree credit for students with credit in BAN 5753.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5963 Data Mining and Customer Relationship Management Applications
Prerequisites: MKTG 5983 or consent of MBA, MIS/MSIS, MSTM director or assistant director or instructor.
Description: Data mining and turning business data into actionable information. Use of various data mining tools such as neural networks, decision trees, classification and prediction algorithms, in the context of most common applications in business-sales, marketing, and customer relationship management (CRM). Use of state-of-the-art industrial strength data mining software to analyze real-world data and make strategic recommendations for managerial actions. No degree credit for students with credit in BAN 5743 and MKTG 5743.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5973 New Product Development
Prerequisites: Acceptance into the MBA program or consent of the MBA director.
Description: Elements involved in creating and selling a successful new product in a complex environment, including internal organizational and external environmental influences..
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 5983 Data Base Marketing
Prerequisites: Consent of MBA, MIS/MSIS, MSTM director or assistant director or instructor.
Description: Learn how to manage data, and analyze data using statistical tools such as multiple regression, ANOVA, logistic regression, etc., and frameworks/models commonly used in database marketing such as RFM, LTV, etc. An overview of basic probability concepts and statistical sampling techniques including hypothesis testing (t-tests), contingency tables and Chi-square analysis will be provided. No degree credit for students with credit in BAN 5733 and MKTG 5733.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Marketing

MKTG 5993 Digital Business Strategy
Prerequisites: Consent of MBA, or MIS/AIS or MSTM director or instructor.
Description: Businesses employment of digital technologies to craft a superior and unique value proposition for its customers and strategic partners.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Undergraduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6100 Advanced Seminar in Marketing
Prerequisites: Consent of instructor and doctoral student standing.
Description: Specialized topics in marketing for doctoral students. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Graduate
Schedule types: Independent Study
Department/School: Marketing

MKTG 6323 Seminar in Advanced Consumer Behavior
Prerequisites: MKTG 5133 or consent of the instructor.
Description: An interdisciplinary course examining empirical and theoretical studies of the factors that influence the acquisition, consumption, and disposition of goods, services, and ideas. Analysis of the psychological, sociological, anthropological, demographic, and regulatory forces that impact consumers. Examination of research methodologies employed to conduct empirical studies of consumer behavior.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6413 Advanced Marketing Research
Prerequisites: MKTG 5983 or MKTG 5963 or consent of MBA director or MIS director or instructor.
Description: Introduction to the latest empirical marketing research and advanced analytics techniques such as MANOVA, Confirmatory Factor Analysis, Cluster Analysis, Scaling Techniques, Conjoint Analysis and Structural Equation Models. No degree credit for students with credit in BAN 5763.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6513 Seminar in Marketing Theory
Prerequisites: MKTG 5133 or consent of instructor.
Description: Development of an evaluation of marketing theory.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6683 Seminar in Marketing Strategy
Prerequisites: MKTG 5133 or consent of instructor.
Description: Examination of a broad range of marketing management topics from a strategic perspective. Understanding of content, theory and research methods involved in the development of strategic marketing knowledge.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

MKTG 6913 Measurement and Experimental Design
Description: An analysis of measurement issues from both psychometric and marketing perspectives. Scale construction and validation. The design, analysis, and evaluation of marketing experiments.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate
Schedule types: Lecture
Department/School: Marketing

Undergraduate Programs

- International Business, BSBA (p. 2894)
- Marketing, BSBA (p. 2900)
- Marketing: Marketing Communications Management, BSBA (p. 2902)
- Marketing: Marketing Research and Analytics, BSBA (p. 2904)
- Marketing: Professional Selling and Sales Management, BSBA (p. 2906)
- Marketing: Sports Marketing and Revenue Generation, BSBA (p. 2908)
- Marketing: Supply Chain Management, BSBA (p. 2910)

Graduate Programs

The School of Marketing and International Business offers work leading to the Master of Business Administration, the Master of Business Analytics and the Doctor of Philosophy in business administration degrees. In addition, the School of Marketing and International Business

offers work leading to Graduate Certificate in Business Data Mining and Graduate Certificate in Marketing Analytics.

The Master of Business Administration (MBA) Degree

See "Business Administration (p. 2914)."

The Master of Science in Business Analytics and Data Science (BAnDS) Degree

This is an interdisciplinary program that offers hands-on application of data analysis along with a unique blend of coursework in Analytics, Marketing, Statistics, Business, MIS and Industrial Engineering. The structure of the curriculum has been carefully designed in consultation with our advisory board companies to balance the need of understanding quantitative approaches, statistical modeling and machine-learning algorithms; data visualization and exploration; and interpretation of results and the ability to apply these results for solving business problems.

The MS in BAnDS is a 37-hour program featuring a core of 25 hours (18 for part time), including a business practicum. The 12 hours of electives allow students to specialize in areas such as business, statistics, information science or industrial engineering. In addition to the MS in BAnDS degree, students in this program may also receive the following three certificates depending on elective courses taken, credentials achieved and so on: SAS® and OSU Data Mining Certificate (core level), SAS® and OSU Predictive Analytics Certificate (advanced level) and SAS® and OSU Marketing Data Science Certificate (expert level).

Admission requirements for the MS in BAnDS are similar to the admission requirements for the other master's programs in the Spears School of Business. Information about the program is available on the Internet at http://analytics.okstate.edu/msba/.

The Doctor of Philosophy Degree

The PhD in business administration program through the School of Marketing and International Business provides intensive study in marketing. It prepares the student for significant professional contributions in university teaching and research or staff positions in business or government.

The program is quite flexible and individually structured to meet the needs and objectives of each candidate. The program is designed to create scholars and researchers in the field of marketing. Highly student-oriented, the program focuses on training individuals in current marketing theory and research techniques. Collaboration between students and faculty is strongly encouraged.

Program Content

The student will take 15 hours of PhD seminars in marketing. The student must also complete a nine-hour minor in another discipline such as economics, management, sociology or psychology. As support for the major and minor fields of study, extensive coursework (normally 18 credit hours) in the area of quantitative/research methodology is required.

In preparation for the program, it is advisable for candidates to have completed appropriate basic courses in calculus and statistics. Likewise, candidates are expected to have a basic competence in the major functional areas of business—accounting, finance, operations management, organizational theory, economics and marketing. Competence in the functional areas is usually assumed for candidates having recently completed an appropriate graduate course in each area in an MBA program accredited by the Association to Advance Collegiate Schools of Business (AACSB).

Application Procedure

Outstanding undergraduate or graduate students from any field of study may apply. For those with an MBA, the program will normally consist of two years of coursework and two years of dissertation work. For those without a master's degree, the plan of study for the PhD degree will typically allow for the granting of an MBA prior to completion of the PhD degree. Applications for admission to the program are evaluated on the basis of the following:

1. undergraduate and graduate grade-point averages,
2. the score on the Graduate Management Admissions Test or Graduate Record Examination,
3. a two- or three-page statement describing goals and academic interests,
4. three letters of recommendation,
5. evidence of research potential, and
6. a personal interview when feasible.

It is the responsibility of each applicant to ensure that all materials related to the above criteria are submitted to the Graduate College and received by the School of Marketing and International Business. Application forms are available online through the Graduate College. A detailed explanation of the PhD degree in business administration with an emphasis in marketing is available through the department.

Graduate Certificate in Business Data Mining

This certificate program is designed to help working professionals with technical background who do not want to pursue a full master's degree yet want to acquire data mining or predictive analytics skills by taking a series of courses online. Working professionals admitted in this program can complete coursework in 12-24 months by taking courses online. Those enrolled in the graduate certificate in business data mining may be able transfer the credit hours to the MS in Business Analytics if they choose to apply for admission into the MS degree at a later date. Along with the graduate certificate in business data mining, students in this program may also receive all of the following three certificates (depending on courses taken, credentials achieved, etc.): SAS and OSU Data Mining Certificate (core level), SAS and OSU Predictive Analytics Certificate (advanced level) and SAS and OSU Marketing Data Science Certificate (expert level).

More details about this program (including procedure and admission requirements) are on the website: https://osuonline.okstate.edu/programs/certificates/business-analytics-data-science.html.

Certificates

- International Business, UCRT (p. 2897)
- Marketing Essentials for Business Success, UCRT (p. 2899)
- Sales and Service Excellence, UCRT (p. 2912)
- Sports Marketing and Revenue Generation, UCRT (p. 2913)

Minors

- International Business (INBU), Minor (p. 2893)
- Marketing (MKTG), Minor (p. 2898)

Faculty

Justin Lawrence, PhD—Associate Professor and Interim Department Head
Professors: Todd Arnold, PhD; Goutam Chakraborty, PhD; Karen Flaherty, PhD; Marlys Mason, PhD
Associate Professors: Zachary Arens, PhD; Xiang Fang, PhD; Steven Shepherd, PhD; Ajay Sukhdial, PhD
Assistant Professors: Melissa Baucum, PhD; Tsung-Yiou Hsieh, PhD; Felipe Affonso Marinelli, PhD; Yuechen Wu, PhD
Professors of Professional Practice: Aditi Grover, PhD; Maribeth Kuzmeski, PhD; Rich Kuzmeski, MBA; Miriam McGaugh, PhD; Jerry Rackley, MBA; Whitney Roman, MBA
Other Faculty: Christopher Pogue

International Business (INBU), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Chesapeake Energy Business Student Success Center, 155 Business Building, 405-744-2772

Minimum Overall Grade Point Average: 2.00
Total Hours: 27

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MKTG 3993	International Business (I)	3
Select 6 hours of the following:		6
ACCT 4763	International Accounting Abroad (I)	
ECON 3613	International Economic Relations (IS)	
FIN 4213	International Financial Management	
LSB 4633	Legal Aspects of International Business Transactions (I)	
MGMT 4613	International Management (I)	
MGMT 4943	International Sports Management (I)	
MKTG 4553	International Marketing	
ACCT 2003	Survey of Accounting	3
or ACCT 2103	Financial Accounting	
ECON 2003	Microeconomic Principles for Business	3
or ECON 2103	Introduction to Microeconomics (S)	
Select 9 hours of the following:		9
FIN 3113	Finance	
LSB 3213	Legal and Regulatory Environment of Business	
MGMT 3013	Fundamentals of Management (S)	
MKTG 3213	Marketing (S)	
Select 3 hours of any upper division business class or AGEC 4343.		3
Total Hours		**27**

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

International Business, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		0
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required in these 66 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Major Requirements		
A GPA of 2.00 is required in these 36 hours of International Business Major Requirements		
20 of these 36 hours must be in residence at OSU		
MKTG 3993	International Business (G)	3
MKTG 4093	Current Topics International Business	3
Select 12 hours of the following:		12
ACCT 4763	International Accounting Abroad (G)	
ECON 3613	International Economic Relations (GS)	
FIN 4213	International Financial Management	
LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 4613	International Management (G)	
MKTG 4553	International Marketing	
MGMT 4943	International Sports Management (G)	
Select 3 hours of the following:		3
ECON 4643	International Economic Development (GS)	
GEOG 3053	Introduction to Central Asia Studies	
GEOG 3133	Political Geography (GS)	
GEOG 3723	Europe (GS)	
GEOG 3733	Russia and Its Neighbors (GS)	
GEOG 3743	Latin America (GS)	
GEOG 3753	Asia (GS)	
GEOG 3763	Africa (GS)	
GEOG 3783	The Middle East (GS)	
GEOG 3793	Australia and the Pacific Realm (GS)	
GEOG 4143	Geography of Travel and Tourism	
HIST 3113	Germany Since 1815 (GH)	
HIST 3163	Russia Since 1861 (GH)	
HIST 3273	Modern Europe Since 1914 (GH)	
HIST 3323	Modern France, 1789-Present (GH)	
HIST 3333	History of the Second World War (GH)	
HIST 3343	World War I in Modern European Culture (GH)	
HIST 3413	East Asia Since 1800 (GH)	
HIST 3423	Modern Japan (GH)	
HIST 3433	Modern China (GH)	
HIST 3463	Modern Latin America (GH)	
HIST 4980	Topics in History	

PHIL 3943	Asian Philosophy (GH)
POLS 3003	The Soviet Union: History, Society and Culture(GS)
POLS 3033	International Law
POLS 3053	Introduction to Central Asia Studies (IS)
POLS 3123	Russian & Eurasian Politics (G)
POLS 3143	European Politics (G)
POLS 3163	African Politics (G)
POLS 3193	Latin American Politics (GS)
POLS 3223	Asian Politics
POLS 3313	Middle Eastern Politics
POLS 4010	Advanced Topics in International Relations
POLS 4043	Global Political Economy
POLS 4053	War And World Politics (G)
REL 4213	Understanding Global Islam (GH)
REL 4223	Religion and Conflict in the Middle East (GH)
Select an additional 15 hours of upper-division business courses from any field in the Spears School of Business. A minor in a selected business field is highly recommended.	15
Hours Subtotal	**66**
Electives	
Select 11 hours [3]	11
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. 12 credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.	
Hours Subtotal	**11**
Total Hours	**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.
3. The student must indicate international cultural proficiency as evidenced by a combination of 9 hours of course credit in any of the following areas:
   a. Modern foreign language
   b. Study abroad programs
   c. Semester study abroad program
   d. Upper-division "I" designation coursework

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
MKTG 3213	Marketing (S)	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
ACCT 2003	Survey of Accounting	3
MKTG 3993	International Business (G)	3
'H' designated course		3
	Hours	**16**
Spring		
MGMT 3013	Fundamentals of Management (S)	3
LSB 3213	Legal and Regulatory Environment of Business	3
FIN 3113	Principles of Finance	3
'H' designated course		3
'LN' designated course		4
	Hours	**16**

Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
BADM 3113	Practical Business and Interpersonal Skills	3
MSIS 3223	Principles of Data Analytics	3
3 hours from 12 hour list in major		3
3 hours from 12 hour list in major		3
'D' designated course		3
	Hours	**16**
Spring		
3 hours from 12 hour list in major		3
3 hours from 12 hour list in major		3
3 hours of upper division business		3
3 hours from 3 hour list in major		3
3 hours of electives		3
	Hours	**15**
Senior		
Fall		
MKTG 4093	Current Topics International Business	3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of upper division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

1

The student must indicate international cultural proficiency as evidenced by a combination of 9 hours of credit course in the following areas: Modern foreign language, Study Abroad programs, Semester Study Abroad program, Upper-Division "I" designation coursework.

International Business, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Required Coursework		
MKTG 3213	Marketing (S)	3
MKTG 3993	International Business (G)	3
MKTG 4093	Current Topics International Business	3
MKTG 4553	International Marketing	3
Select six hours from the following:		6
ACCT 4763	International Accounting Abroad (G)	
AGEC 4343	International Agricultural Markets and Trade (G)	
ECON 3613	International Economic Relations (GS)	
FIN 4213	International Financial Management	
HTM 2563	Culture, Food, and Travel (G)	
LSB 4633	Legal Aspects of International Business Transactions (G)	
MGMT 4613	International Management (G) (Or any Study Abroad Trip or IB-Focused Internship (domestic or international))	
or ACCT 4763	International Accounting Abroad (G)	
or BADM 2093	Study Abroad: Contemporary International Culture and Business Impacts	
or BADM 3090	Study Abroad (G)	
or BADM 4090	International Proficiency Field Experience for Business	
or BADM 4093	Study Abroad: Business Impacts of Contemporary International Culture (G)	
or EEE 4090	Study Abroad in Entrepreneurship	
or FIN 4053	Study Abroad: Contemporary Global Impacts in Finance	
or HTM 4053	Study Abroad: Contemporary Global Impacts in HTM	
or HTM 4090	International Hospitality Studies	
or MGMT 4053	Study Abroad: Contemporary Global Impacts in Marketing & International Business	
or MGMT 4750	International Leadership Experience	
or MKTG 4053	Study Abroad: Contemporary Global Impacts in Marketing & International Business	
or MSIS 4063	STUDY ABROAD: Contemporary Global Impacts in IT, Analytics and Cybersecurity	
Total Hours		**18**

Marketing (MKTG), Minor

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

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Minimum Overall Grade Point Average: 2.00
Total Hours: 15

For minors requiring 27 hours, 18 of the 27 hours must be taken in residence at OSU, and 6 of the 9 hours for the Specific Minor Area must be taken in residence at OSU. Students with majors outside of the SSB may find that some courses will have additional prerequisites. For minors with various required hours, please see specific minor.

Code	Title	Hours
Minor Requirements		
MKTG 3213	Marketing (S)	3
Select 12 hours of any upper-division marketing classes		12
Total Hours		**15**

Other Requirements

- 12 of the 15 hours must be taken in residence at OSU.

Additional OSU Requirements

Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf).

Marketing Essentials for Business Success, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
MKTG 3213	Marketing (S)	3
MKTG 3323	Consumer and Market Behavior	3
MKTG 4683	Managerial Strategies in Marketing	3
MKTG 3653	Marketing Analytics	3
or MKTG 4333	Marketing Research	
Choose two of any upper-division marketing courses (six hours).		6
Total Hours		**18**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Marketing, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in residence at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3653	Marketing Analytics	3
MKTG 4333	Marketing Research	3
MKTG 4683	Managerial Strategies in Marketing	3
or MKTG 4693	Marketing Strategy and Customer-Employee Interactions	
Select 9 hours of upper-division marketing electives.		9
Select an additional 12 hours of upper-division courses from any field in the Spears School of Business.		12
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- **At least:** 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 and 50% of the upper-division hours in the major field completed at OSU.
- **Limit of:** one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MSIS 3223	Principles of Data Analytics	3
3 hours of upper division business		3
3 hours of upper division MKTG		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
'D' designated course		3
3 hours of upper division business		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
MKTG 4333	Marketing Research	3
'LN' designated course		4
3 hours upper division MKTG		3
3 hours electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683 or MKTG 4693	Managerial Strategies in Marketing or Marketing Strategy and Customer-Employee Interactions	3
3 hours upper division MKTG		3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Marketing: Marketing Communications Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Marketing Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in residence at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3433	Promotional Strategy	3
MKTG 3653	Marketing Analytics	3
MKTG 4333	Marketing Research	3
MKTG 4343	Brand Marketing	3
MKTG 4683	Managerial Strategies in Marketing	3
or MKTG 4693	Marketing Strategy and Customer-Employee Interactions	
MKTG 4993	Digital Marketing	3
Select 3 hours of upper-division marketing electives.		3
Select an additional 9 hours of upper-division courses from any field in the Spears School of Business.		9
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3433	Promotional Strategy	3
3 hours of upper division business		3
3 hours of electives		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
MKTG 4343	Brand Marketing	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 4333	Marketing Research	3
BADM 3113	Practical Business and Interpersonal Skills	3
'LN' designated course		4
'D' designated course		3
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683 or MKTG 4693	Managerial Strategies in Marketing or Marketing Strategy and Customer-Employee Interactions	3
MKTG 4993	Digital Marketing	3
3 hours upper division MKTG		3
3 hours upper division business		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper-division MKTG		3
3 hours upper-division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Marketing: Marketing Research and Analytics, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
MATH 1513	College Algebra (Q) (or higher MATH designated "A")	3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Marketing Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in resident at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3653	Marketing Analytics	3
MKTG 4333	Marketing Research	3
MKTG 4683	Managerial Strategies in Marketing	3
or MKTG 4693	Marketing Strategy and Customer-Employee Interactions	
STAT 4053	Statistical Methods I for the Social Sciences (Q)	3
MSIS 4673	Data Visualization	3
Select 6 hours of upper-division marketing electives		6
Select an additional 9 hours of upper-division courses from any field in the Spears School of Business.		9
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3 If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
MATH 1513	College Algebra (Q) (or higher math class with A designation)	3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MSIS 3223	Principles of Data Analytics	3
STAT 4053	Statistical Methods I for the Social Sciences (Q)	3
3 hours upper division MKTG		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
MSIS 4673	Data Visualization	3
3 hours of electives		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
MKTG 4333	Marketing Research	3
'LN' designated course		4
'D' designated course		3
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683 or MKTG 4693	Managerial Strategies in Marketing or Marketing Strategy and Customer-Employee Interactions	3
3 hours upper-division MKTG		3
3 hours upper-division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours upper-division business		3
3 hours upper-division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Marketing: Professional Selling and Sales Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Marketing Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in resident at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3473	Professional Selling	3
MKTG 4513	Sales Management	3
MKTG 3653	Marketing Analytics	3
MKTG 3873	Marketing or International Business Internship	3
MKTG 4333	Marketing Research	3
MKTG 4683	Managerial Strategies in Marketing	3
or MKTG 4693	Marketing Strategy and Customer-Employee Interactions	
Select 3 hours of upper-division marketing electives		3
Select an additional 9 hours of upper-division courses from any field in the Spears School of Business.		9
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3 If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3473	Professional Selling	3
MSIS 3223	Principles of Data Analytics	3
'D' designated course		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
MKTG 4513	Sales Management	3
3 hours of electives		3
	Hours	**16**
Spring		
MKTG 4333	Marketing Research	3
BADM 3113	Practical Business and Interpersonal Skills	3
'LN' designated course		4
3 hours upper-division MKTG		3
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683 or MKTG 4693	Managerial Strategies in Marketing or Marketing Strategy and Customer-Employee Interactions	3
MKTG 3873	Marketing or International Business Internship	3
3 hours of upper-division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper-division business		3
3 hours of upper-division business		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Marketing: Sports Marketing and Revenue Generation, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3213	Marketing (S)	3
MGMT 4513	Strategic Management	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Marketing Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in residence at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3653	Marketing Analytics	3
MKTG 4333	Marketing Research	3
MKTG 4683	Managerial Strategies in Marketing	3
or MKTG 4693	Marketing Strategy and Customer-Employee Interactions	
MKTG 3713	Sports Marketing	3
MKTG 4713	Advanced Sports Marketing (Advanced Sports Marketing)	3
MKTG 4813	Sports Sales and Revenue Generation (Sports Sales and Revenue Generation)	3
Select 3 hours from the following courses		3
MKTG 4123	Influencer Marketing	
MGMT 3943	Sports Management	
MKTG 3473	Professional Selling	
MKTG 4613	Content Marketing Strategy	
ECON 3723	The Economics of Sport	
MKTG 4993	Digital Marketing	
MKTG 4543	Social Media Strategies	
MKTG 3873	Marketing or International Business Internship	
Select an additional 9 hours of upper-division courses from any field in the Spears School of Business.		9
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1

Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2

MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3

If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated "Q"		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3713	Sports Marketing	3
MSIS 3223	Principles of Data Analytics	3
3 hours from 3 hour list in major		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
MKTG 4713	Advanced Sports Marketing	3
3 hours of upper division business		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
MKTG 4333	Marketing Research	3
'LN' designated course		4
'D' designated course		3
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683 or MKTG 4693	Managerial Strategies in Marketing or Marketing Strategy and Customer-Employee Interactions	3
MKTG 4813	Sports Sales and Revenue Generation	3
3 hours of upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours of upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Marketing: Supply Chain Management, BSBA

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated (Q)		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory-Based Inquiry (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
MGMT 3013	Fundamentals of Management (S) [1, 2]	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours may be required to meet the total 40-hour minimum of general education credit if courses carry more than one general education designation and can be used to meet multiple general education designation hour requirements above.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		
MSIS 2233	Business Analytics Fundamentals (Q) [1]	3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
BADM 2111	Career Planning for Business Success	1
BADM 3111	Professional Development for Business Success	1
Hours Subtotal		**3**
Major Requirements		
A minimum GPA of 2.00 is required for these 63 hours		
Common Body [2]		
ACCT 2003	Survey of Accounting [3]	3
or ACCT 2103 & ACCT 2203	Financial Accounting and Managerial Accounting	
BADM 3113	Practical Business and Interpersonal Skills	3
ECON 2003	Microeconomic Principles for Business	3
EEE 2023	Introduction to Entrepreneurship	3
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MGMT 4513	Strategic Management	3
MKTG 3213	Marketing (S)	3
MSIS 2103	Business Data Science Technologies	3
MSIS 3223	Principles of Data Analytics	3
Marketing Major Requirements		
A GPA of 2.00 is required in these 33 hours of Marketing Major Requirements		
18 of these 33 hours must be in residence at OSU		
MKTG 3323	Consumer and Market Behavior	3
MKTG 3653	Marketing Analytics	3
MKTG 4333	Marketing Research	3
MKTG 4683	Managerial Strategies in Marketing	3
MKTG 3223	Supply Chain Management	3
MKTG 4213	Advanced Supply Chain Management	3
MSIS 4153	Supply Chain Systems and Technologies	3
MSIS 3253	Supply Chain Operations and Analytics	3
or MSIS 4053	Supply Chain Security and Risk Analysis	
Select an additional 9 hours of upper-division courses from any field in the Spears School of Business.		9
Hours Subtotal		**63**
Electives		
Select 14 hours [3]		14
May be selected from any upper- or lower-division area except activity courses in LEIS and PE and lower-division AERO and MLSC. Twelve credit hours earned in advanced AERO and MLSC, exclusive of credit earned for summer camp, may be included in the 120 hours.		
Hours Subtotal		**14**
Total Hours		**120**

1 Courses also meet College and Departmental Requirements and cannot be waived with an Associate's degree.

2 MGMT 3013 Fundamentals of Management (S) is a common body requirement, but is counted in general education requirements.

3 If ACCT 2103 and ACCT 2203 are substituted for ACCT 2003, hours in the Elective block are reduced by 3.

Other Requirements

1. A minimum of 50 percent of the business hours required for a degree must be OSU delivered in residence or OSU online courses.
2. Forty-five hours of upper-division courses are required.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Example Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MSIS 2103	Business Data Science Technologies	3
3 hours of MATH or STAT designated 'Q'		3
'G' designated course		3
	Hours	**16**
Spring		
EEE 2023	Introduction to Entrepreneurship	3
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
POLS 1113	American Government	3
MSIS 2233	Business Analytics Fundamentals (Q)	3
'N' designated course		3
	Hours	**15**
Sophomore		
Fall		
ACCT 2003	Survey of Accounting	3
BADM 2111	Career Planning for Business Success	1
ECON 2003	Microeconomic Principles for Business	3
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
'H' designated course		3
	Hours	**16**
Spring		
MKTG 3323	Consumer and Market Behavior	3
MSIS 3223	Principles of Data Analytics	3
MKTG 3223	Supply Chain Management	3
3 hours of upper division business		3
'H' designated course		3
	Hours	**15**
Junior		
Fall		
BADM 3111	Professional Development for Business Success	1
FIN 3113	Principles of Finance	3
LSB 3213	Legal and Regulatory Environment of Business	3
MKTG 3653	Marketing Analytics	3
MSIS 4153	Supply Chain Systems and Technologies	3
'D' designated course		3
	Hours	**16**
Spring		
BADM 3113	Practical Business and Interpersonal Skills	3
MKTG 4333	Marketing Research	3
MKTG 4213	Advanced Supply Chain Management	3
'LN' designated course		4
3 hours of electives		3
	Hours	**16**
Senior		
Fall		
MKTG 4683	Managerial Strategies in Marketing	3
MSIS 3253 or MSIS 4053	Supply Chain Operations and Analytics or Supply Chain Security and Risk Analysis	3
3 hours upper division business		3
3 hours of electives		3
2 hours of electives		2
	Hours	**14**
Spring		
MGMT 4513	Strategic Management	3
3 hours upper division business		3
3 hours of electives		3
3 hours of electives		3
	Hours	**12**
	Total Hours	**120**

Sales and Service Excellence, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

For details and latest information on this program, please contact Professor Whitney Roman, Spears School of Business, whitney.roman@okstate.edu.

Total Hours: 18

Code	Title	Hours
MGMT 3013	Fundamentals of Management (S)	3
MKTG 3213	Marketing (S)	3
MKTG 3473	Professional Selling	3
MKTG 4473	Advanced Professional Selling	3
MKTG 4513	Sales Management	3
MKTG 4773	Services Marketing	3
or MKTG 3873	Marketing or International Business Internship	
Total Hours		**18**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Sports Marketing and Revenue Generation, UCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 18

Code	Title	Hours
Course Requirements		
MKTG 3213	Marketing (S)	3
MKTG 3713	Sports Marketing	3
MKTG 4713	Advanced Sports Marketing	3
MKTG 4813	Sports Sales and Revenue Generation	3
Choose 6 hours from the following:		6
MKTG 4123	Influencer Marketing	
MKTG 4623	Marketing Design Essentials	
MKTG 4993	Digital Marketing	
HTM 3123	Event Planning and Production	
Total Hours		**18**

Other Requirements

- A minimum of 50 percent of the business hours required for the certificate must be OSU delivered in residence or OSU online courses.

Watson Graduate School

Watson Graduate School of Management provides support for several collegewide and departmental graduate programs. Links to all the program options are provided below, but the collegewide programs are described first.

Many of our Masters programs have dual degree agreements to let prospective students pursue two graduate degrees. In addition, many programs have "4+1" options so that OSU undergraduate students can apply for a Masters degree while pursuing their undergraduate degree and begin work towards their graduate degree to be able to accelerate completion of the masters degree coursework. Program websites identify these arrangements and steps.

The Master of Business Administration Degree

The Master of Business Administration program provides graduate professional education for individuals preparing for administrative careers in either the private or public sectors. It is a comprehensive yet flexible program providing the knowledge and analytical tools to cope with the complexities of management within diverse environments. There are a number of delivery options for the MBA: full-time, part-time and online.

Full-Time MBA

The full-time MBA is a 36-credit-hour semi-lockstep program designed for individuals who want a cohort-based experience. Applicants must have earned a four-year undergraduate degree or equivalent from an accredited university and have competitive GPA and GMAT/GRE scores. Full-time students may choose between a general MBA and an in-depth specialization. Students choosing a general MBA are free to select 9 hours of electives in functional areas of business such as marketing, finance or management. Students seeking a more in-depth area of study may embed a graduate certificate program into their MBA elective coursework.

Part-Time MBA

The part-time MBA is a 36-credit-hour program (with 3-hour credit for relevant prior experience leading to effectively 33-hours) designed for individuals who wish to enroll on a part-time basis. The self-paced program allows students to take classes as their schedules permit. Applicants must have earned a four-year undergraduate degree or equivalent from an accredited university and have competitive GPA and GMAT/GRE scores if significant post-completion work experience hasn't yet been established. See program website for more details.

Online

The MBA part-time program can be completed through a distance-learning format. Distance learning is an ideal educational format for individuals seeking an alternative to the traditional on-campus classroom experience. Classes are delivered via video streaming on the Internet. Interaction with faculty and other students occurs through a web-based environment.

Regardless of the delivery option, admission is granted on a competitive basis to those students whose potential for successful graduate study is clearly indicated by the undergraduate grade-point average, the scores on the Graduate Management Admissions Test or GRE, letters of recommendation from two sources, past work experience, extracurricular and community activities and stated career goals.

The required number of credit hours for the MBA degree and consideration of a waiver for GMAT/GRE scores for admission under exceptional circumstances are subject to changes after approval by the OSRHE.

MS BAnDS

The MS in Business Analytics and Data Science (MS BAnDS) is a STEM designated program that develops the next generation of analytics and data science professionals to tackle real-world challenges. We use state-of-the-art enterprise level analytics software from multiple vendors such as Alteryx, Azure, Power BI, Tableau, SAS, Snowflake as well as open source software such as Google Colab, Python and R which provide great advantages in the competitive job market.

The MS BAnDS (https://business.okstate.edu/analytics/) program requires 38 credit hours (with 5-hour credit for relevant prior experience leading to effectively 33 hours for online students). Check our Plan of Study (https://business.okstate.edu/analytics/plan_of_study.html) page for core course details, electives and software used in each core course, and graduates typically find employment (https://business.okstate.edu/analytics/student_placement.html) as data scientists, data/business analysts or consultants, or statistical analysts. It is a 21-months program (for full-time on campus students) of which up to 7 months may be used for internships. Beyond core courses, all students have the choice of specializing in various pre-approved options or, creating a completely customized set of electives to fit their career goals.

Admissions

Admissions are decided on a holistic approach with successful candidates meeting the following preferences:

- GMAT or GRE are required with minimum recommended scores above the 51st percentile in each of the test areas.
- Work experience is considered during the application review process and is strongly encouraged for all candidates.

The Doctor of Philosophy Degree

The PhD in business administration is an interdepartmental program in the Spears School of Business, including accounting, entrepreneurship, finance, hospitality and tourism management, management, management science and information systems, marketing and an executive research option. The degree emphasizes flexibility to meet the particular needs and objectives of individual candidates. The program is designed to provide the highest degree of preparation for the individual student, enabling him or her to make significant professional contributions in research, teaching or business or governmental positions.

Requirements

Students select one major area of study from either accounting, entrepreneurship, finance, hospitality and tourism management, management, management information systems/management science or marketing, and two minor areas. The dissertation is usually written in the student's major area. One of the minor areas must be taken in the Spears School of Business. The second minor may be taken from another department within the Spears School of Business or from a department outside the Spears School.

All candidates for the PhD degree in business administration are expected to have a basic competence in all the major functional areas of business administration—accounting, economics, finance, management, management information systems/management science and marketing. In addition, basic competence is expected in research methods and statistics. Students who possess a recent master's degree in business from a program accredited by the Association to Advance Collegiate Schools of Business (AACSB International) will generally have satisfied most of the basic competence requirements in these areas.

Administration

The program is administered by the dean of the Graduate College and the department in which the student enrolls with the assistance of a faculty advisory committee.

Major and Minor Areas

The candidate's advisory committee is responsible for assisting in the development of a plan of study that assures competence in the major and minor areas and in economics and quantitative analysis. All PhD students in residence are required to do teaching or research on a half-time basis while earning the degree.

For additional information about the PhD see the respective departments.

In addition, Spears Business offers several specialized masters and graduate certificate programs. Information on these is linked below.

Doctor of Business Administration (DBA)

This AACSB-accredited Doctor of Business Administration is designed for experienced professionals in business and management. It is a terminal degree that combines rigorous coursework with applied research to develop advanced skills in critical thinking and decision-making. The DBA curriculum focuses on solving real-world business challenges and aims to develop industry leaders who can make significant contributions in their fields. Students will engage in specialized studies within a chosen area of concentration and complete a doctoral thesis that contributes new knowledge to the field of business administration. It is offered in a hybrid format with a mix of in-person residencies and the opportunity to specialize through online coursework.

PhD in Business for Executives

Oklahoma State University offers an AACSB accredited Ph.D. in Business Administration for Executives that allows organizational leaders to earn a doctorate while continuing their full-time careers. The program is designed to bridge rigorous academic study and business practice through a rich research-based curriculum and practical research. It is offered in a hybrid format with in-person residencies.

Masters/Doctoral Degrees

- MBA (Overview (https://business.okstate.edu/departments_programs/watson/mba/) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/business-administration-mba/))
- MS in Accounting ((Overview (https://go.okstate.edu/graduate-academics/programs/masters/accounting-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/accounting-corporate-finance-ms/))
  - Corporate Finance (Catalog (p. 3140))
  - Data Analytics & Systems (Catalog (p. 3141))
  - Financial Reporting & Auditing (Catalog (p. 3142))
  - Tax (Catalog (p. 3144))
- MS in Business Analytics and Data Science (Overview (https://go.okstate.edu/graduate-academics/programs/masters/business-analytics-and-data-science-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/business-analytics-data-science-ms/))
  - Advanced Data Science (Catalog (p. 3166))
  - Cybersecurity Analytics (Catalog (p. 3167))
  - Health Analytics (Catalog (p. 3168))
  - Marketing Analytics (Catalog (p. 3169))
- MS in Economics (Overview (https://go.okstate.edu/graduate-academics/programs/masters/economics-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/economics-ms/)) (Currently not admitting any new students)
- MS in Hospitality and Tourism Management (Overview (https://go.okstate.edu/graduate-academics/programs/masters/hospitality-and-tourism-management-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/hospitality-tourism-management-ms/))
- MS in Management Information Systems (Overview (https://go.okstate.edu/graduate-academics/programs/masters/management-information-systems-and-information-assurance-ms.html) / Catalog (http://catalog.okstate.edu/graduate-college/masters-degrees/management-information-systems-ms/))
  - Big Data Analytics (Catalog (p. 3263))
  - Cybersecurity (Catalog (p. 3264))
  - Health Analytics (Catalog (p. 3265))
- MS in Quantitative Finance (Overview (https://go.okstate.edu/graduate-academics/programs/masters/quantitative-financial-economics-ms.html))
- PhD in Business Administration (Overview)
  - Accounting (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-accounting-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-accounting-phd/))
  - Entrepreneurship (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-entrepreneurship-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-entrepreneurship-phd/))
  - Finance (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-finance-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-finance-phd/))
  - Hospitality and Tourism Management (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-htm-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-hospitality-tourism-management-phd/))
  - Management Science and Information Systems (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-management-science-and-information-systems-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-management-science-information-systems-phd/))
  - Management (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-

in-management-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-management-phd/))
    - Marketing (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-option-in-marketing-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-marketing-phd/))
- PhD in Business for Executives (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-for-executives-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/business-administration-executive-research-phd/))
- Doctor of Business Administration (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/business-administration-dba.html) / Catalog (p. 2963))
- PhD in Economics (Overview (https://go.okstate.edu/graduate-academics/programs/doctoral/economics-phd.html) / Catalog (http://catalog.okstate.edu/graduate-college/doctoral/economics-phd/))

Graduate Certificates

- Accounting (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/accounting.html) / Catalog (http://catalog.okstate.edu/graduate-college/graduate-certificate/accounting-gcrt/))
- Business Analytics and Data Science (Overview (https://osuonline.okstate.edu/programs/certificates/business-analytics-data-science.html) / Catalog (p. 3060))
- Business Sustainability and Nonprofit Management (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/business-sustainability.html) / Catalog (http://catalog.okstate.edu/graduate-college/graduate-certificate/business-sustainability-gcrt/))
- Entrepreneurship (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/entrepreneurship.html) / Catalog (p. 3079))
- Finance and Investment Banking (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/finance-investment-banking.html) / Catalog (p. 3084))
- General Business (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/general-business.html) / Catalog (p. 3062))
- Health Analytics (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/health-analytics.html) / Catalog (p. 3099))
- Hospitality and Tourism Analytics (Catalog (p. 3105))
- Human Resource Management (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/human-resource-management.html) / Catalog (p. 3106))
- Information Assurance (Overview (https://go.okstate.edu/graduate-academics/programs/certificates/information-assurance.html) / Catalog (p. 3108))

THE HONORS COLLEGE

Keith Garbutt, PhD—Dean
Richard Frohock, PhD—Associate Dean
Stephanie Miller, PhD—Teaching Associate Professor
John Andrews, PhD—Teaching Assistant Professor
Nicole Colston, PhD—Teaching Assistant Professor
Ebonie Hill—Program Manager
Shelley Schauer—Executive Administrative Assistant
Andrea Hearn, PhD—Honors Senior Academic Advisor II
Kerri Farnsworth Hoback, PhD—Honors Academic Advisor III
Christine Thomas, PhD—Honors Academic Advisor III
Katie Parr—Honors Academic Advisor I
Diamond Russell—Honors Academic Advisor I
Anna Tapp—Honors Academic Advisor I
Bella Vu—Honors Academic Advisor I

Oklahoma State University is an active member of the National Collegiate Honors Council and the Great Plains Honors Council. The Honors College Degree is composed of a university-wide General Honors component and specialized upper-division components at the departmental or college levels. The Honors College provides motivated students with the opportunity to study, conduct research, and exchange ideas in an exciting and supportive academic environment. Honors sections are offered in many general education courses, and special honors seminars, add-ons and interdisciplinary honors courses also are available. Honors classes are taught by outstanding faculty members and the classes are small in size to facilitate active student involvement. Additionally, the honors experiential learning program allows students to earn honors credit for meaningful, substantive activities that take them beyond the classroom. A wide range of specified activities (arranged under the headings Academics, Arts, Leadership, Study Away, and Service) can qualify for honors points (equivalent to hours) that can be applied toward the general honors award (GHA), to maintain active status, and/or toward additional hours needed for the honors degree after completion of the GHA and departmental/college awards.

Completion of the requirements for the General Honors Award leads to special designation on the student's OSU transcript, as does completion of the requirements for the Departmental or College Honors Award in the student's academic major. Students who complete both the General Honors Award and the Departmental Honors award and earn a minimum of 30 honors credit hours, with a 3.50 cumulative grade-point average at graduation, receive the Honors College Degree, indicated with a special entry on their transcripts and special honors diplomas.

Additional advantages for active participants in The Honors College include priority enrollment, access to various engagement and social activities exclusive to honors students, and an honors housing option in Stout Hall (on a rooms-available basis).

Admission of new first-year students to The Honors College is based on a high school grade-point average of 3.85 or higher OR high school grade-point average of 3.75 and an ACT composite score of 27 (or comparable SAT-R score). If a student has a high school grade-point average of at least 3.75 and does not have a standardized test score or would like to be considered for Honors College admission without a standardized test score being taken into consideration, the student may petition for admission. The petition form is available when the student applies to The Honors College through the OSU admissions application. Oklahoma State University uses the highest cumulative GPA (weighted or unweighted based on a 4.0 scale) indicated on a student's official high school transcript for admission and scholarship purposes. GPAs not using a 4.0 scale will be converted to a 4.0 scale.

Students other than new first-year students may be admitted to The Honors College on the basis of their overall grade-point average (7-59 hours earned: 3.30; 60-93 hours earned: 3.40; 94 or more hours earned: 3.50). Transfer students must have completed at least seven college credit hours (not including concurrent enrollment while in high school) to be eligible on the basis of college performance if they do not have the required high school grade-point average and ACT score.
In addition to meeting the Honors criteria, admission to The Honors College is contingent on space being available. Please apply as early as possible for the best consideration. Students must be admitted to OSU to apply to The Honors College. Apply online at admissions.okstate.edu/apply (https://admissions.okstate.edu/apply/). There is no additional fee to apply to The Honors College. Honors eligibility is subject to periodic review, so be sure to check with The Honors College for current requirements.

For additional information about The Honors College, interested students should consult the Dean or Program Manager of The Honors College, 101 Old Central, or visit https://honors.okstate.edu (http://honors.okstate.edu).

OSU-Tulsa Honors Award

This award was created for OSU-Tulsa students and is ideal for transfer students. In general, the OSU-Tulsa Honors Award requires a minimum of 18 honors credit hours with a grade of "A" or "B", including a 3-hour thesis prep and 3-hour thesis or creative component, with a cumulative graduation/retention GPA of 3.50 or higher. Up to nine of the 18 honors credit hours can be transferred in from eligible honors programs. Students who earn the OSU-Tulsa Honors Award receive a certificate, and the award is posted to their undergraduate transcripts.

For additional information about the OSU-Tulsa Honors Award, interested students should consult Dr. Lindsey Smith, coordinator of the OSU-Tulsa Honors Award, 101 Old Central, or visit https://honors.okstate.edu.

Courses

HONR 1000 Introductory Honors Topics
Prerequisites: Introductory Honors Topics.
Description: Introduction to topics in various disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1010 Introductory Honors Seminar in Social Sciences
Prerequisites: Honors College participation.
Description: Introduction to topics in social science disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1020 Introductory Honors Seminar in STEM
Prerequisites: Honors College Participation.
Description: Introduction to topics in STEM disciplines by faculty from the undergraduate colleges for freshman and sophomore students in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1030 Introductory Honors Seminar in Arts and Humanities
Prerequisites: Honors College participation.
Description: Introduction to topics in arts and humanities disciplines. Offered for variable credit, 1-3 credit hours, maximum of 12 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 1093 Patterns and Symmetry in Mathematics (Q)
Prerequisites: Honors Program participation.
Description: Tessellations, or repetitive patterns in the plane and in space, and the symmetries, or rigid motions, that preserve them. Illustrations from art, architecture, science, and nature. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Analytical & Quant Thought, Honors Credit

HONR 1103 The US Presidency (as seen on TV) (S)
Prerequisites: Honors College participation.
Description: This course will focus on the relationship between the U.S. Presidency and the media, starting from the Roosevelt administration. The course also examines the unique communication opportunities Presidents (and those seeking the office) can utilize, from news conferences to debates. Special consideration will be given to the impact of new and social media and whether it is diminishing the impact of television on coverage of the office.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 1113 Active Aging for L.I.F.E (DS)
Prerequisites: Honors College participation.
Description: Active aging allows people to realize their potential for physical, social and mental well-being throughout the life course. In this honors seminar you will acquire a great deal of information on a wide range of topics in order to build your personal understanding of the relationships between Longevity, Independence, Fitness and Engagement for active aging.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 1123 The Art of Mindful Living (H)
Prerequisites: Honors College Participation.
Description: Meditation and mindfulness are becoming ever-more relevant and important in our busy modern world and life. This course presents the basics for both understanding and practicing mindfulness so to live a more peaceful and fulfilled life.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 1133 Place-As-Text Seminar (H)
Prerequisites: Honors College Participation.
Description: Place-as-Text™ is a curriculum developed and taught by honors colleges and programs around the country. These courses focus on a place, often a city, and explore life and culture there through immersive, experience-based activities. Students will learn to observe closely, "read" what they encounter and experience, and independently analyze how cultural ideas create real living conditions.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 1153 Sex in College Culture Honors (S)
Prerequisites: Honors College Participation.
Description: Within college culture, individual identity and behavior, social expectations, and campus policies coalesce to influence the sexual experiences of college students. This course examines gender; sexual scripts; dating, hooking up, and relationships; sexual orientation; Greek life; and sexual violence as confined within and ultimately shaped by college culture.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 1503 Integrative Biology: The Mind (N)
Prerequisites: Honors College participation.
Description: The Mind connects biopsychology to real world behavior and shows how millions of years of cognitive evolution have shaped how we see the world and how we make decisions based on our perceptions. This is a natural science course that addresses important contemporary social issues and will be uniquely effective at helping prepare students to not only be successful young academics, but conscientious thoughtful members of society as well.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Natural Science Reasoning

HONR 2013 Honors Law and Legal Institutions (S)
Prerequisites: Honors Program participation.
Description: An introduction to law in American society with reference to its European origins; its political, economic, psychological, and sociological dimensions; and the substantive law in selected areas. Introduction to legal reasoning and legal research techniques. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, Society & Human Behavior

HONR 2023 Constitutional Dimensions of Diversity (DS)
Prerequisites: Honors College participation.
Description: An introduction to American constitutional law as it relates to diversity issues through the study of landmark Supreme Court decisions affecting the rights of various minorities. Introduction to legal research techniques.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 2063 Ethical Issues Across Cultural Perspectives (H)
Prerequisites: Honors Program participation.
Description: An introduction to reasoned methods of evaluating ideas and arguments as they pertain to ethical issues from a global perspective. Concepts including obligation, justice, and ethnicity from Lao Tzu, Maimonides, Kant, and Indian wisdom stories. Environmentalism, technology, and cultural knowledge. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2073 The Story of Lizzie Borden: Axe Murder in American Culture (DH)
Prerequisites: Honors College participation.
Description: In 1892, Lizzie Borden was accused of killing her father and stepmother with an axe. She was eventually acquitted, but her story had captured the American cultural imagination. This course examines representations of the Lizzie Borden story in news reports, true crime, short fiction, poems, novels, plays, a ballet, and multiple films, exploring how changing concepts of gender shape the way in which the story is told in different media and in different moments in American history.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 2083 Honors Flash Fiction: A Tiny Genre with a Big Impact (DH)
Prerequisites: Honors College participation.
Description: This honors seminar explores diversity in contemporary American culture through the lens of flash fiction; very short stories.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 2093 Tornadoes in American Culture (H)
Prerequisites: Honors College participation.
Description: This honors seminar will explore how tornadoes shape regional identities, produce diverse narratives, and influence art, literature and film.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2303 Magic Rings Symbol and Allegory (H)
Prerequisites: Honors College participation.
Description: A study of magic rings as symbols in Western philosophy, literature, and music. Works will include Plato's Republic, Wagner's Ring on the Nibelung, and Tolkien's Lord of the Rings.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2313 Don Juan: His Lives and Times (H)
Prerequisites: Honors College participation.
Description: A cultural history of the Don Juan figure in literature and music from the 17th century to the present. Works studied include those by Tirso de Molina, Molière, Mozart, Pushkin, Byron, Shaw, and Walcott.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2323 Witches, Murderers, Pirates, and Thieves: Early American Crime Narratives (H)
Prerequisites: Honors College participation.
Description: Tales of crimes – real, alleged and fictional – were very popular with readers in the 17th, 18th and 19th century Atlantic world, as they are today. As we work our way through tales of sensational crime, we will think about the cultural work that crime stories do; that is, we will consider how they explore ideas about human nature, civil society, authority, transgression, and the origins of evil.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2413 The Ancient World (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from ancient Greece and Rome as well as the religious ideas central to Judaism and Christianity. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. No degree credit for students with prior credit in HONR 2113. Previously offered as HONR 1013.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2423 The Middle Ages and Renaissance (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the Middle Ages to the early Renaissance. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2113. Previously offered as HONR 1023.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2433 The Early Modern World (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the late Renaissance to the mid-19th century. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2223. Previously offered as HONR 1033.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2443 Honors Romanticism to Postmodernism: 19th & 20th Centuries (H)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of art, history, philosophy and literature from the 19th century to the present. Team-taught by faculty from appropriate disciplines in a lecture and discussion format. For the Honors student. May not be used for degree credit with HONR 2223. Previously offered as HONR 1043.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 2503 Confronting Pseudoscience
Prerequisites: Honors College participation.
Description: Using the tools of evidential reasoning and critical thinking this course examines the difference between a true scientific endeavor and pseudoscientific belief systems. In doing so it provides students with an understanding of scientific reasoning and its application in everyday life while exposing students to content from a range of the natural sciences.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 2514 Honors Scientific Inquiry
Prerequisites: Honors Program participation.
Description: A team-taught interdisciplinary course dealing with philosophy of science and the application of the scientific method in the natural and social sciences. Selected topics that involve interdisciplinary scientific inquiry. For the Honors student.
Credit hours: 4
Contact hours: Lecture: 3 Lab: 2 Contact: 5
Levels: Undergraduate
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 2890 Introductory Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental introductory honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s). Offered for fixed credit, 1 credit hour.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3000 Advanced Honors Topics
Prerequisites: Honors Program participation, junior standing.
Description: Topical study in various disciplines taught by faculty from the undergraduate colleges for junior and senior students in the University Honors Program. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3010 Advanced Honors Seminar in Social Sciences
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in social science disciplines for the Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3013 Holocaust Studies Seminar (GH)
Prerequisites: Junior standing and Honors College participation.
Description: An interdisciplinary study of one of the great atrocities of human history – the Holocaust. Addresses questions of good and evil, divinity and humanity, and truth and responsibility that arise from this event. For the Honors Student.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit, International Dimension

HONR 3020 Advanced Honors Seminar in STEM
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in STEM disciplines in the Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3023 Contemporary Cultures of the Western World: Honors (GH)
Prerequisites: Honors College participation.
Description: Interdisciplinary examination of one or more cultures of Europe and/or the western hemisphere. The course will explore characteristics of "Western" cultures and their manifestations in modern societies. Topics of study include diversity in social and cultural practices.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit, International Dimension

HONR 3030 Advanced Honors Seminar in Arts and Humanities
Prerequisites: Honors College participation.
Description: Advanced investigation of topics in arts and humanities disciplines in the University Honors College. Offered for variable credit, 1-3 credit hours, maximum of 15 credit hours.
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3033 Contemporary Cultures of the Non-Western World: Honors (GS)
Prerequisites: Honors College participation.
Description: Interdisciplinary study of contemporary cultures of non-western world including lifestyle, housing and food. Team-taught by faculty from appropriate disciplines in a lecture and discussion format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit, International Dimension, Society & Human Behavior

HONR 3043 Contemporary Cultures of the United States (DS)
Prerequisites: Honors Program participation.
Description: Interdisciplinary study of racial and ethnic diversity in the United States in context of social, political, and economic systems to promote knowledge of racial and ethnic minority groups in the United States and appreciation of their contributions to the mosaic of contemporary American life. Team-taught by faculty from appropriate disciplines in a lecture and discussion format.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Honors Credit, Society & Human Behavior

HONR 3053 Biology, Race, and Gender: Honors (DH)
Prerequisites: Junior standing and Honors College participation.
Description: Critical interdisciplinary investigation of relationships between biological theory (especially Darwinism) and social and ethical issues. Attention to views of alleged biological aspects of perceived racial and gender differences and attempts to implement these views socially, legally, and medically in the United States and elsewhere.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Diversity, Human Heritage & Cultures, Honors Credit

HONR 3063 Jane Austen: Life, Art, and Influence (H)
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: An author who continues to speak to generations of readers centuries after her death, Jane Austen wrote a half dozen novels that became classics within a few decades of their creation. This course examines the distinct features of the writing that accounts for her significant accomplishments - not just on the development of the novel but her influence on those novelists who followed her.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Human Heritage & Cultures, Honors Credit

HONR 3890 Advanced Honors Add-On
Prerequisites: Honors College participation and concurrent enrollment in a designated course.
Description: A supplemental advanced honors experience to partner concurrently with designated course(s). This course adds a different intellectual dimension to the designated course(s).
Credit hours: 1-3
Contact hours: Lecture: 1-3 Contact: 1-3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 3990 Honors Thesis Preparation
Prerequisites: Honors College participation, Senior Standing.
Description: A guided preparation course for students completing the requirements for college or departmental honors awards leading to an honors thesis, project or report under the direction of a faculty member from one of the undergraduate colleges, with a second faculty reader. This preparation course is typically taken the semester before HONR 4993. Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.
Credit hours: 1-3
Contact hours: Contact: 1-3 Other: 1-3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

HONR 4993 Honors Creative Component
Prerequisites: Honors Program participation, senior standing.
Description: A guided creative component for students completing the requirements for college or departmental honors awards leading to an honors thesis, project or report under the direction of a faculty member from one of the undergraduate colleges, with a second faculty reader and oral examination.
Credit hours: 3
Contact hours: Contact: 3 Other: 3
Levels: Undergraduate
Schedule types: Independent Study
Department/School: Honors College
General Education and other Course Attributes: Honors Credit

Awards

Minimum Overall Grade Point Average: 3.50
Total Hours: 30

Code	Title	Hours
Honors College Degree		
The General Honors Award and the College Honors Award are independent awards and stackable components of the Honors College Degree.		
General Honors Award		
To earn the General Honors Award only, students must complete the required General Honors Award hours and a minimum of 15 total honors hours.		
Complete 9 honors hours breadth requirement.		9
Complete 3 hours in honors seminar credit.		3
Select additional honors hours as needed to reach 15 total.		3
*No more than 12 credits of transfer honors may be used.		

*No Grade Below "B."

College/Departmental Honors Award	
To earn the College Honors Award only, students must complete the required College Honors Award hours and a minimum of 12 upper-division honors hours.	
Select 6 upper-division honors credits in your major field of study,with a minimum of 3 honors hours using major course prefix.	6
Complete 3 hours of honors pre-thesis course credit.	3
Complete 3 hours of honors thesis or creative component course credit.	3
*Upper-division honors seminar hours ordinarily cannot be used and would require departmental permission.	
*Transfer courses may not be used to complete this award.	
*No Grade Below "B."	
*To earn the General Honors Award and the College Honors Award, students must complete required hours for both awards and a minimum of 27 honors hours.	
Honors College Degree	
To earn the Honors College Degree, students must complete requirements for the General Honors Award and the College Honors Award and a minimum of 30 honors hours.	3
*No grade below "B."	
Total Hours	**30**

Code	Title	Hours
Tulsa Honors Award		
Select 6 open honors credits (can be lower- or upper-division)		6
Select 6 upper-division honors credits in your major field of study, with a minimum of 3 honors hours using major course prefix.		6
Complete 3 honors hours of pre-thesis course credit.		3
Complete 3 honors hours of thesis or creative component course credit.		3
*Only available for students enrolled at OSU-Tulsa.		
*No more than 12 credits of transfer honors may be used.		
*No grade below "B."		
Total Hours		**18**

General Honors Award

Code	Title	Hours
Nine Honors Credits Breadth Requirement		
Humanities		
Honors courses designated "H", classified as humanities by the Honors College, honors points earned through experiential learning, or any of the courses/subjects listed below:		3
ENGL 1313	Critical Analysis and Writing I	
ENGL 1413	Critical Analysis and Writing II	
HIST 3980	Studies in History	
HONR 1000	Introductory Honors Topics (designated "H")	
HONR 1000	Introductory Honors Topics (Sem in Hum)	
HONR 1123	The Art of Mindful Living (H)	
HONR 1030	Introductory Honors Seminar in Arts and Humanities	
HONR 1133	Place-As-Text Seminar (H)	
HONR 2063	Ethical Issues Across Cultural Perspectives (H)	
HONR 2073	The Story of Lizzie Borden: Axe Murder in American Culture (DH)	
HONR 2083	Honors Flash Fiction: A Tiny Genre with a Big Impact (DH)	
HONR 2093	Tornadoes in American Culture (H)	
HONR 2303	Magic Rings Symbol and Allegory (H)	
HONR 2313	Don Juan: His Lives and Times (H)	
HONR 2323	Witches, Murderers, Pirates, and Thieves: Early American Crime Narratives (H)	
HONR 2413	The Ancient World (H)	
HONR 2423	The Middle Ages and Renaissance (H)	
HONR 2443	Honors Romanticism to Postmodernism: 19th & 20th Centuries (H)	
HONR 3013	Holocaust Studies Seminar (GH)	
HONR 3023	Contemporary Cultures of the Western World: Honors (GH)	
HONR 3053	Biology, Race, and Gender: Honors (DH)	
HONR 3030	Advanced Honors Seminar in Arts and Humanities	
HONR 3063	Jane Austen: Life, Art, and Influence (H)	
AADM, AFAM, AMIS, AMST, ARB, ART, ASL, CHIN, DANC, ENGL, FREN, GREK, GRMN, GWST, HIST, HONR, JAPN, JAZZ, KRN, LATN, LL, LLCE, MSIN, MUSI, PHIL, REL, SPAN, TH (Except those designated "A", "N", or "S")		
Social Sciences		
Honors courses designated "S", classified as social sciences by the Honors College, honors points earned through experiential learning, or any of the courses/subjects listed below:		3
HONR 1000	Introductory Honors Topics (designated "S")	
HONR 1000	Introductory Honors Topics (Sem in Soc Sci)	
HONR 1103	The US Presidency (as seen on TV) (S)	
HONR 1113	Active Aging for L.I.F.E (DS)	
HONR 2013	Honors Law and Legal Institutions (S)	
HONR 1010	Introductory Honors Seminar in Social Sciences	
HONR 2023	Constitutional Dimensions of Diversity (DS)	
HONR 3033	Contemporary Cultures of the Non-Western World: Honors (GS)	
HONR 3010	Advanced Honors Seminar in Social Sciences	
HONR 3043	Contemporary Cultures of the United States (DS)	
AECL, AERO, AGCM, AGEC, AGED, AGIN, AGLE, ANTH, AVED, BADM, BHON, CDIS, CIED, CPS, CPSY, CTED, DHM, DIVR, DM, ECON, EDHS, EDLE, EDTC, EEE, EPSY, FDEP, FEMP, FFP, GEOG, GLHE, GLST, GRAD, GS, GTED, HCA, HDFS, HESA, HHP, HLTH, HS, HTM, LA, LSB, MBA, MC, MGMT, MKTG, MLSC, MMJ, MPH, OOS, POLS, PSYC, RM, RMRT, RT, SC, SCFD, SOC, SPCH, SPED, SPM, SPSY, UNIV, WAED (Except those designated "A", "H", or "N")		
STEM (Science, Technology, Engineering, and Mathematics)		

Honors courses designated "A", "N", classified as STEM by the Honors College, honors points earned through experiential learning, or any of the courses/subjects listed below:		3
HONR 1000	Introductory Honors Topics (designated "A" or "N")	
HONR 1000	Introductory Honors Topics (Sem in STEM)	
HONR 1020	Introductory Honors Seminar in STEM	
HONR 1093	Patterns and Symmetry in Mathematics (Q)	
HONR 1503	Integrative Biology: The Mind (N)	
HONR 2503	Confronting Pseudoscience	
HONR 2514	Honors Scientific Inquiry	
HONR 3020	Advanced Honors Seminar in STEM	
UNIV 2910	Niblack Research Scholars	
ACCT, AG, ANSI, ARCH, AST, ASTR, BAE, BAN, BIOC, BIOL, BIOM, CBSC, CET, CHE, CHEM, CIVE, CS, ECEN, ENGR, ENSC, EET, ETM, FDSC, FIN, FPST, FRNS, FSEP, GENE, GENG, GENT, GEOL, HORT, IEM, ITOX, LEIS, MAE, MAT, MATH, MERO, MET, MICR, MSE, MSIS, NREM, NSCI, NURS, PA, PBIO, PETE, PHYS, PLNT, PLP, REMS, RES, SMED, SOIL, STAT, VCS, VME, VMED (Except those designated "H" or "S")		
Honors Seminar		
Select a minimum of three credits of HONR coursework designated as honors seminars below		3
These courses may also be used to satisfy a portion of the breadth requirement		
ART 1103	Drawing I	
ART 1303	Visual Thinking: Form and Space	
EEE 3031	Entrepreneurial Value Creation in Society	
EEE 3673	Business Model Discovery	
ENGL 3123	Mythology (H)	
FFP 2613	Financial Perspectives throughout the United States (DS)	
HDFS 2113	Lifespan Human Development (S)	
HDFS 3123	Parenting (S)	
HDFS 3423	Adolescent and Youth Development (S)	
HDFS 4473	Policy, Law and Advocacy	
HIST 2513	Plantation to Plate: Sugar, Bananas, and Coffee in America (H)	
HIST 3980	Studies in History	
HONR 1000	Introductory Honors Topics	
HONR 1010	Introductory Honors Seminar in Social Sciences	
HONR 1020	Introductory Honors Seminar in STEM	
HONR 1030	Introductory Honors Seminar in Arts and Humanities	
HONR 1093	Patterns and Symmetry in Mathematics (Q)	
HONR 1103	The US Presidency (as seen on TV) (S)	
HONR 1113	Active Aging for L.I.F.E (DS)	
HONR 1133	Place-As-Text Seminar (H)	
HONR 1123	The Art of Mindful Living (H)	
HONR 1133	Place-As-Text Seminar (H)	
HONR 1153	Sex in College Culture Honors (S)	
HONR 1503	Integrative Biology: The Mind (N)	
HONR 2013	Honors Law and Legal Institutions (S)	
HONR 2023	Constitutional Dimensions of Diversity (DS)	
HONR 2063	Ethical Issues Across Cultural Perspectives (H)	
HONR 2073	The Story of Lizzie Borden: Axe Murder in American Culture (DH)	
HONR 2083	Honors Flash Fiction: A Tiny Genre with a Big Impact (DH)	
HONR 2093	Tornadoes in American Culture (H)	
HONR 2303	Magic Rings Symbol and Allegory (H)	
HONR 2313	Don Juan: His Lives and Times (H)	
HONR 2323	Witches, Murderers, Pirates, and Thieves: Early American Crime Narratives (H)	
HONR 2413	The Ancient World (H)	
HONR 2423	The Middle Ages and Renaissance (H)	
HONR 2433	The Early Modern World (H)	
HONR 2443	Honors Romanticism to Postmodernism: 19th & 20th Centuries (H)	
HONR 2503	Confronting Pseudoscience	
HONR 2514	Honors Scientific Inquiry	
HONR 3010	Advanced Honors Seminar in Social Sciences	
HONR 3013	Holocaust Studies Seminar (GH)	
HONR 3020	Advanced Honors Seminar in STEM	
HONR 3023	Contemporary Cultures of the Western World: Honors (GH)	
HONR 3030	Advanced Honors Seminar in Arts and Humanities	
HONR 3033	Contemporary Cultures of the Non-Western World: Honors (GS)	
HONR 3043	Contemporary Cultures of the United States (DS)	
HONR 3053	Biology, Race, and Gender: Honors (DH)	
HONR 3063	Jane Austen: Life, Art, and Influence (H)	
Additional Honors Hours to Reach a Total of 15 Honors Hours		**3**
*No more than 12 credits of transfer honors may be used		
Total Hours		**15**

College/Departmental Honors Award

Code	Title	Hours
Upper-division Honors credits, with a minimum of 3 hours using major course prefix		**6**
Honors Thesis Prep		**3**
AG 4013	Preparation for Honors Thesis Research	
BAE 4012	Senior Engineering Design Project I	
BIOC 4990	Undergraduate Research	
BIOL 4700	Undergraduate Research Problems	
CDIS 4900	Undergraduate Research	
CHE 4124	Chemical Engineering Design I	
CHEM 4990	Undergraduate Research in Chemistry	
ECEN 4013	Design of Engineering Systems	
EET 4833	Industrial Project Design I	
FPST 4982	Fire Protection and Safety Projects I	
HONR 3990	Honors Thesis Preparation	

MATH 4963	Preparation for Senior Thesis
MET 4103	Senior Design I
MET 4133	Interdisciplinary Design I
MICR 4990	Special Problems
NSCI 4850	Special Unit Studies in Nutritional Sciences
PHIL 4990	Special Studies in Philosophy
PHYS 4010	Special Problems
PSYC 4990	Research Practicum
Honors Thesis or Creative Component	**3**
A&S 4013	Multidisciplinary Studies Capstone
AG 4023	Senior Honors Thesis
ARCH 4216	Architectural Design Studio VII
ARCH 5226	Architectural Engineering Comprehensive Design Studio
ART 4993	Senior Honors Project
BAE 4023	Senior Engineering Design Project II
BHON 4990	Business Honors Thesis
BIOL 4750	Honors Study in Integrative Biology
CDIS 4993	Senior Honors Thesis
CET 4293	Construction Manager Concepts
CHE 4224	Chemical Engineering Design II
CHEM 4993	Senior Thesis in Chemistry
CIVE 4063	Introduction to Railroad Engineering
CS 4993	Senior Honors Project
ECEN 4024	Capstone Design
ECON 4993	Economics Honors Thesis
EET 4843	Industrial Project Design II
ENGL 4993	Senior Honors Thesis
FPST 4992	Fire Protection & Safety Projects II
GEOG 4993	Senior Honors Thesis
GEOL 4993	Senior Honors Thesis
GLST 4513	Senior Capstone Experience
HDFS 4900	Honors Creative Component
HIST 4903	Senior Seminar
HIST 4993	Senior Honors Thesis
HONR 4993	Honors Creative Component
IEM 4913	Senior Design Projects
LL 4993	Senior Honors Thesis
MATH 4993	Senior Honors Thesis
MC 4993	Senior Honors Thesis
MERO 4833	Senior Design
MET 4143	Interdisciplinary Design II
MICR 4993	Senior Honors Project
MUSI 4901	Senior Recital
MUSI 4993	Senior Honors Project
NSCI 4900	Honors Creative Component
PBIO 4800	Senior Honors Thesis
PHIL 4993	Senior Honors Thesis
PHYS 4993	Senior Honors Thesis
POLS 4903	Senior Capstone Seminar
POLS 4993	Political Science Honors Thesis
PSYC 4880	Senior Honors Thesis
SOC 4993	Senior Honors Thesis
STAT 4993	Senior Honors Project
TH 4403	Senior Honors Project
Total Hours	**12**

Tulsa Honors Award

Code	Title	Hours
Open Hours		
Select 6 honors credits (can be lower- or upper-division, transfer, or experiential learning)		6
Select 3 upper-division honors credits with major prefix		3
Select 3 upper-division honors credits, major/related		3
Pre-thesis		**3**
AG 4013	Preparation for Honors Thesis Research	
BAE 4012	Senior Engineering Design Project I	
BIOC 4990	Undergraduate Research	
BIOL 4700	Undergraduate Research Problems	
CDIS 4900	Undergraduate Research	
CHE 4124	Chemical Engineering Design I	
CHEM 4990	Undergraduate Research in Chemistry	
ECEN 4013	Design of Engineering Systems	
EET 4833	Industrial Project Design I	
FPST 4982	Fire Protection and Safety Projects I	
HONR 3990	Honors Thesis Preparation	
MATH 4963	Preparation for Senior Thesis	
MET 4103	Senior Design I	
MET 4133	Interdisciplinary Design I	
MICR 4990	Special Problems	
NSCI 4850	Special Unit Studies in Nutritional Sciences	
PHIL 4990	Special Studies in Philosophy	
PHYS 4010	Special Problems	
PSYC 4990	Research Practicum	
Thesis		**3**
A&S 4013	Multidisciplinary Studies Capstone	
AG 4023	Senior Honors Thesis	
ARCH 4216	Architectural Design Studio VII	
ARCH 5226	Architectural Engineering Comprehensive Design Studio	
ART 4993	Senior Honors Project	
BAE 4023	Senior Engineering Design Project II	
BHON 4990	Business Honors Thesis	
BIOC 4990	Undergraduate Research	
BIOL 4750	Honors Study in Integrative Biology	
CDIS 4993	Senior Honors Thesis	
CET 4293	Construction Manager Concepts	
CHE 4224	Chemical Engineering Design II	
CHEM 4993	Senior Thesis in Chemistry	
CIVE 4043	Senior Design	
CS 4993	Senior Honors Project	
ECEN 4024	Capstone Design	
ECON 4993	Economics Honors Thesis	
EET 4843	Industrial Project Design II	

ENGL 4993	Senior Honors Thesis
FPST 4992	Fire Protection & Safety Projects II
GEOG 4993	Senior Honors Thesis
GEOL 4993	Senior Honors Thesis
GLST 4513	Senior Capstone Experience
HDFS 4900	Honors Creative Component
HIST 4903	Senior Seminar
HIST 4993	Senior Honors Thesis
HONR 4993	Honors Creative Component
LL 4993	Senior Honors Thesis
MAE 4344	Design Projects
MAE 4374	Aerospace System Design
MATH 4993	Senior Honors Thesis
MC 4993	Senior Honors Thesis
MERO 4833	Senior Design
MET 4123	Senior Design II
MET 4143	Interdisciplinary Design II
MICR 4993	Senior Honors Project
MUSI 4901	Senior Recital
MUSI 4993	Senior Honors Project
NSCI 4900	Honors Creative Component
PBIO 4800	Senior Honors Thesis
PHIL 4993	Senior Honors Thesis
PHYS 4993	Senior Honors Thesis
POLS 4903	Senior Capstone Seminar
POLS 4993	Political Science Honors Thesis
PSYC 4880	Senior Honors Thesis
SOC 4993	Senior Honors Thesis
STAT 4993	Senior Honors Project
TH 4403	Senior Honors Project
Total Hours	**18**

GRADUATE COLLEGE

College Administration

Melanie Morgan, PhD—Dean
Matt Lovern, PhD—Associate Dean
Rebecca Sheehan, PhD—Associate Dean
Carol Powers, PhD—Assistant Dean

Campus Address and Phone

Address: 202 Whitehurst, Stillwater, OK 74078
Admissions
Phone: 405-744-6368
Fax: 405-744-0355
Website: gradcollege.okstate.edu (http://gradcollege.okstate.edu)
E-mail: grad-i@okstate.edu (gradi@okstate.edu),

The OSU Graduate College - Developing the person, the scholar, and the professional...

Graduate education at Oklahoma State University (OSU) is organized around the scholarly pursuit of new knowledge, both through didactic instruction and independent and group research conducted utilizing the facilities and resources of a major research university. OSU's national and international reputation is grounded in the scholarly research and creative work performed by faculty and students under the auspices of OSU's graduate programs.

The first graduate degree was conferred by OSU in 1912, and the Graduate College was organized in 1929. OSU offers more than 200 graduate degree programs, and certificates, including several interdisciplinary and joint-degree programs.

1.0 Overview

1.1 Graduate Students.

Nearly 6,000 graduate students currently study at OSU. Part of OSU's mission as a Land Grant University is to serve the people of the region, the state, the nation, and the world by making a first-class education available to all. In response to the growing diversity and demographic changes in the state and in the nation, OSU is committed to preparing graduates to live and work in a culturally pluralistic world. The Graduate College is proud of the diversity of its graduate student population and of their contributions to both the generation and dissemination of new knowledge through their involvement in the University's research and instructional programs. Numerous multicultural student organizations on campus provide information and support to international and diverse students to assist in the successful completion of their graduate studies.

1.2 The Graduate College.

The Graduate College supervises all graduate work offered by OSU, including graduate degree programs at OSU–Stillwater, OSU–Tulsa, OSU Center for Health Sciences in Tulsa, and OSU College of Veterinary Medicine in Stillwater. Professional medical degrees offered through the College of Veterinary Medicine and the Center for Health Sciences in Tulsa are not under the Graduate College. The Graduate College sets standards for admission to graduate standing and recommends to the Board of Regents those students who have completed work required for earning graduate degrees.

In addition, the Graduate College, collaborating with partners campus-wide, offers a number of student services and professional preparation opportunities specifically designed for graduate student success while at OSU as well as after graduation. These activities in the *360° Critical Skills for Career Success* in the Graduate Student Success center include graduate teaching assistant orientation programs, three-minute oral communication competitions, and thesis/dissertation writing workshops.

1.3 Graduate College Memberships.

The Graduate College is a member of the Council of Graduate Schools (CGS), the Conference of Southern Graduate Schools (CSGS), and the Midwestern Association of Graduate Schools (MAGS).

1.4 Organization of the Graduate College.

Consistent with its objective of maintaining the highest standards in graduate education, the Graduate College administers the policies and procedures specified and established by the Graduate Faculty, Graduate Council, Board of Regents for the Oklahoma Agricultural and Mechanical Colleges and the Oklahoma State Regents for Higher Education. The dean of the Graduate College is the senior administrator of the College as well as the dean for graduate students. The Graduate Council is the executive committee of the Graduate Faculty; it is elected by the Graduate Faculty to work with the dean of the Graduate College in the development and administration of applicable policy. The Graduate Council formulates and reviews policies concerning the conduct of graduate study at OSU, and Council members participate in the periodic review of graduate programs. All proposed policies and requests related to the initiation and development of graduate curricular offerings and programs are referred to the Graduate Council for review, comment, and approval.

1.5 Accreditation.

OSU is accredited by the Higher Learning Commission (HLC). Several programs within the disciplinary colleges are also accredited by other agencies; see "Accreditation (p. 18)" in "The University (p. 18)" section of the Catalog.

1.6 General Regulation.

Full authority over all academic decisions within the Graduate College rests with the dean of the Graduate College. The Graduate College policies and procedures described in the Catalog are subject to regular review and may be revised at any time by the dean of the Graduate College in consultation with the Graduate Council.

1.7 Responsibilities.

All graduate students are expected to read and to comply with the written regulations of their graduate programs and disciplinary college, as well as the Graduate College and University. The regulations presented in the Catalog may be supplemented by written departmental or program requirements available at departmental offices and/or websites. Admission to a specific graduate program obligates the student to understand and adhere to the policies of that program.

General regulations in the following sections relate to requirements for admission, enrollment, and academic standing. Subsequent sections outline requirements for the following credentials: Graduate Certificate, Masters, Specialist, and Doctoral degrees. Particular attention should be given to timing and substantive requirements for matriculation, especially admission, the Plan of Study, residency, language proficiency, research, dissertation/thesis/creative component/report, and graduation. The regulations are prescribed by the Graduate Council with the intent of assuring high-quality graduate programs and effective interaction of Graduate Faculty members and graduate students.

1.8 Email as Official Correspondence.

OSU uses the institutional O-Key email address as an official means of communication with OSU faculty, staff, administrators, and students. All students have an official OSU email address that is activated when they set up their O-Key account. Students are expected to activate and check their OSU email on a frequent and consistent basis to remain informed of their official University business and are expected to ensure that adequate email space is available to receive messages.

1.9 Tuition and Fees.

Refer to the "Tuition, Fees and Cost Estimates (p. 78)" section of the Catalog.

1.10 Exception Requests.

Any request for a waiver of, exception to, or deviation from, any requirement set forth in the "Graduate College" section of the Catalog must be in the form of a written petition to the dean of the Graduate College. Such petitions should include a supporting letter from the graduate faculty advisor and/or graduate program coordinator.

2.0 Services for Graduate Students

For a complete list of University services, please visit the "Current Student " link on the "Resources" menu on the Graduate College website (http://gradcollege.okstate.edu) or the "Student Life" link on the OSU website (http://go.okstate.edu).

2.1 Graduate and Professional Student Government Association.

The Graduate and Professional Student Government Association (GPSGA) is an official advisory body to the University President and dean of the Graduate College and serves as the representative voice for graduate and professional students at OSU. Its mission is to improve all aspects of post-graduate education and student life at OSU.

The Association represents each graduate and professional degree program. Representatives are nominated by the graduate programs with membership conferred by the GPSGA president. Each representative is appointed for a term of one year; a representative must be in good academic standing and enrolled full time.

The GPSGA provides funds for graduate and professional student organizations and in collaboration with the Graduate College, travel grants to help students defray costs incurred by attending and presenting at professional meetings. For more information consult gpsga.okstate.edu (http://gpsga.okstate.edu).

3.0 Funding Your Graduate Education

3.1 General Financial Aid.

One of the most common sources of funding for graduate students is graduate assistantships. Graduate teaching and research assistantships (GTAs/GRAs) support OSU's instructional and scholarly activities. Most academic programs routinely evaluate graduate admission applications not only for admission consideration but also for the possibility of assistantship offers. The graduate program makes assistantship offers. These awards assist students in paying for their graduate education and also offer opportunities to gain valuable skills and experience in their discipline and as a professional.

3.2 Office of the Bursar Payment Plan

OSU offers enrolled students a semester-based payment option, as an alternative to the traditional lump-sum payment method. This plan allows for university-billed expenses to be paid in regular monthly installment without a finance charges. The plan has a $25 application fee and additional information can be found at https://bursar.okstate.edu/billing_payment-option-plan (https://bursar.okstate.edu/payment-option-plan/)/.

3.3 Federal Financial Aid.

All domestic students who want to qualify for federal financial aid should complete the Free Application for Federal Student Aid (FAFSA). Students are encouraged to complete the FAFSA annually as soon after October 1 as possible to receive aid for the subsequent academic year. The FAFSA is available at www.studentaid.gov/h/apply-for-aid/fafsa.ed.gov (https://studentaid.gov/h/apply-for-aid/fafsa/).

3.4 OSU Short-Term Emergency Loans.

In addition to potential federal loans that may be awarded, OSU assists students in need of immediate funds through the Short-Term Emergency Loan Program. This program is designed to help OSU students who are currently enrolled and attending classes to meet educationally-related off-campus unexpected expenses. The program is not designed to pay a debt owed to OSU. Qualified students may borrow up to $500 less a $10 service charge one time per semester. Additional information about the Short-Term Emergency Loan Program can be found at https://financialaid.okstate.edu/aid/loans/stl (https://financialaid.okstate.edu/aid/loans/stl/).

3.5 Graduate Assistantships.

OSU recognizes two types of graduate assistants for students enrolled in master's, specialist, and doctoral degree programs. Graduate certificate seeking only and non-degree seeking students are not eligible for GTA or GRA positions or associated benefits.

A Graduate Teaching Assistant (GTA) must be admitted to and meet the requirements of the Graduate College, be fully admitted to a graduate degree program, enrolled, and be under the supervision of an appropriate graduate faculty member. In consultation with the supervisor, the GTA works to gain instructional skills and an increased understanding of the discipline. The GTA is provided a stipend and their primary responsibilities are to support the University's instructional mission. Services provided by a GTA may include: classroom or laboratory teaching; advising and mentoring of students; proctoring examinations; grading papers, homework, and/or projects; accompanying/coaching musical or vocal performances; providing artistic instruction or assisting with preparation and management of materials and programs that are utilized in imparting knowledge or in the instructional process; or providing other general assistance in the instruction process. A GTA may be assigned primary responsibilities in an extension, outreach, or service role for which those responsibilities support the instructional mission of the University. GTAs may not be given duties to support faculty research or those primarily clerical in nature.

A Graduate Research Assistant (GRA) must be admitted to and meet the requirements of the Graduate College, be fully admitted to a graduate degree program, enrolled, and be under the supervision of an appropriate graduate faculty member. A GRA is provided a stipend and their primary responsibilities are to provide general support to the University's research mission. These responsibilities may or may not relate directly to the student's thesis or dissertation. Duties of the GRA primarily involve applying and mastering research concepts, practices, or methods

of scholarship. Services provided by a GRA may include: assisting faculty members in a research or creative activity; performing degree-related professional or administrative services that supports research, instruction, professional development, or outreach missions of the University; developing and evaluating instructional materials or curricula; or assuming responsibility for designated scholarly endeavors.

Assistantship inquiries should be addressed to the unit head or graduate program coordinator of the unit/department/school/program in which the appointment is desired. The service expected is governed by the terms of the appointment.

3.6 Graduate Assistantship Responsibilities.

An offer of an assistantship is a commitment by a unit/department/school/program to provide financial support to admitted graduate students. Assistantships are an investment made by a unit/department/school/program and are granted primarily to enable the student to pursue an advanced degree and gain valuable experience. Accepting an assistantship brings with it a professional obligation to fulfill all of the responsibilities associated with the assistantship assignment. Included in this professional obligation is the expectation that students who have accepted an assistantship will diligently pursue their degree to completion. In recognition of this commitment and to provide adequate time for students holding assistantships to devote to study, employment as a graduate assistant is limited to a total, from all University sources (including external grants and contracts), of 0.50 FTE (an average of 20 hours per week) in the Fall and Spring semesters, and 0.75 FTE (an average of 30 hours per week) between the end of the Spring semester and the beginning of the Fall semester. Exceptions to this limitation may be requested by the employing unit or graduate program to the dean of the Graduate College.

A student with a 0.50 FTE assistantship is expected to devote, on average, 20 hours per week to their duties as a graduate teaching or research assistant; the remainder of academic effort is devoted to his or her own studies and research. The time devoted to the assistantship may vary from day to day and week to week as long as it does not exceed the average given above.

As part of a graduate student's educational experience, OSU makes a number of GRAs available on a routine basis. Graduate students on a GRA are expected to devote full-time effort to their graduate programs. While the GRA appointment provides a modest stipend for an average of 10 or 20 hours per week for a 0.25 or a 0.50 FTE assignment, respectively, in recognition of contributions to the OSU research enterprise, it does not indicate that no additional time and effort may be required of the graduate student who is actively pursuing a graduate research degree. Depending on the stage of the research project and the graduate student's advancement in the program, the student may be enrolled in research credit hours for academic credit or only enrolled in formal coursework. Irrespective of that enrollment, it is expected that the graduate student is working full-time toward completion of the advanced degree. OSU, like most institutions nationwide, does not define the research credit hour as equating to a specific amount of time and effort, as the nature of research is highly dependent on the individual's progress on the project. For instance, general OSU policy only requires a minimum enrollment in two credit hours when a graduate student is working on a research project and using OSU resources unless they are employed as a GTA/GRA.

In addition, all students holding a graduate assistantship are required to be full-time students - see "Enrollment Requirements" below. For fall and spring semesters, students employed 0.50 FTE must be enrolled in at least six credit hours to be considered full-time, while students employed less than 0.50 FTE must be enrolled in at least nine credit hours to be considered full-time. However, full-time enrollment for students admitted to doctoral candidacy is two credit hours. For the summer term, students employed at any level must be enrolled in at least two credit hours during any summer session to be considered full-time.

International students who are dependent upon an assistantship for their financial guarantee must remember that forfeiture of that assistantship may require the re-submission of a newly revised financial guarantee to the Office of International Students and Scholars. Students who forfeit their graduate assistantships risk rescission of tuition waivers, as well as any health insurance coverage for graduate assistants provided by the University.

Note that all graduate student benefit programs, such as tuition waivers, are only available to individuals with a primary classification as a graduate student enrolled in a degree program, which does not include certificate-seeking or non-degree seeking graduate students. OSU employees taking graduate classes do not qualify for graduate student benefit programs, irrespective of whether their employment is a benefit eligible position. One cannot selectively opt-out of certain benefits to seek eligibility for other benefits. Please contact the Graduate College or Human Resources if you have questions.

3.7 Graduate Assistantship General Benefits.

Graduate Teaching or Research Assistants employed at least 0.50 FTE in the fall/spring semester (average of 20 hours per week) are enrolled in a minimum of six (or two for doctoral candidates) eligible graduate hours will receive a tuition waiver (hours of enrollment must be required per the graduate degree program). GTAs and GRAs employed .50 FTE who are admitted solely into approved online graduate programs are eligible for an equivalent tuition waiver awarded for residential programs. International students enrolled in online graduate programs are not eligible for graduate assistantships. Summer tuition waivers for the same GTA or GRA for spring semester will apply during the summer regardless of summer employment. Tuition waivers cannot be applied to leveling, undergraduate, or some outreach type courses. Granting of these tuition waivers is also contingent upon the student submitting an electronic GTA/GRA (GSSI) tuition waiver agreement through the Graduate College website (https://gradcollege.okstate.edu/resources/current-student-resources.html), by the first day of the semester, in which they acknowledge their employment, enrollment, and good academic standing responsibilities. Once enrolled, good academic standing (i.e., not on academic notice – beyond conditional admission) is a requirement for OSU tuition waiver eligibility. For more information regarding tuition waiver benefits or academic standing, please visit the Graduate College website (gradcollege.okstate.edu (http://gradcollege.okstate.edu)).

Any graduate student employed as a GTA and/or a GRA less than 0.50 FTE total per week will not be eligible for any type of tuition waiver benefit.

3.7.1 Health Insurance Benefits.

Graduate Teaching or Research Assistants employed in a 0.25 FTE GTA/GRA position during the fall or spring semesters and who are enrolled in at least nine graduate credit hours throughout that entire semester are eligible for subsidized single-person-coverage health insurance through OSU for the fall (or spring) semester. Note: Spring semester eligibility coverage continues through the following summer regardless of employment or enrollment status.

Graduate Teaching or Research Assistants who are not eligible for health insurance coverage during the summer session by virtue of their eligibility during the previous spring semester but who are employed in a 0.25 FTE GTA/GRA position during the eight-week summer session and enrolled in at least two graduate credit hours are eligible for subsidized single-person-coverage health insurance through OSU for the summer term.

The University subsidizes the student's coverage on a semester-by-semester basis. Students receiving the GTA/GRA insurance are required to pay the semester health fee. Information on the policy is available at OSU Human Resources http://hr.okstate.edu/student-health-plan (http://hr.okstate.edu/student-health-plan/).

Eligible graduate students are automatically enrolled for the insurance coverage if they meet eligibility requirements. If students have other insurance coverage or choose not to be enrolled in the student health plan, they may complete a declination form to opt out. A declination form can be found at the following site http://hr.okstate.edu/student-health-plan (http://hr.okstate.edu/student-health-plan/). The form must be submitted by the deadline to OSU Human Resources, Benefits Office.

3.8 Health Insurance for International Students.

The Oklahoma State University Board of Regents requires that all visa-holding (i.e. non-immigrant) students at OSU be covered by health insurance. The OSU Student Insurance Policy is the recommended health insurance and will be billed to all non-immigrant student accounts automatically. Payment for the student insurance is included in the costs listed on the financial affidavit that international students are required to submit to receive a F-1 or J-1 visa.

The insurance premium can be waived for non-immigrant students sponsored by the United States Government, a foreign government recognized by the United States of America, or certain international, government sponsored or non-governmental organizations. Such waivers will be based on the government or organization guaranteeing payment of all health care expenses including evacuation and repatriation.

The insurance premium will also be waived for students who provide documented evidence of health insurance coverage by an employer. Non-immigrant students employed by OSU and eligible for both employer-provided insurance and international student health insurance may select between the two, as long as the insurance selected includes evacuation and repatriation coverage.

Students covered by a private medical insurance plan with benefits comparable to or better than the OSU plan, may request a waiver from OSU's international student health insurance requirement. Coverage must be for the first day of their first semester classes for a 12-month period.

To use alternate insurance, students must complete and submit a waiver request no later than the fifth day of classes. Waiver forms can be found on the International Students and Scholars (ISS) website at http://iss.okstate.edu.

Graduate Teaching or Research Assistants employed in a 0.25 FTE GTA/GRA position during the fall or spring semesters and who are enrolled in at least nine graduate credit hours throughout that entire semester are eligible for subsidized single-person-coverage health insurance through OSU for the fall (or spring) semester.

If a student holds an appointment as at least a 0.25 FTE OSU GTA or GRA position, OSU provides a subsidized, single-person student health insurance policy.

3.9 McNair Graduate Fellowships for former McNair Scholars.

Entering graduate students in residential degree programs who are graduates of a McNair Scholar Program as undergraduates may be eligible to become McNair Graduate Fellows. McNair Graduate Fellows receive a tuition waiver for all degree-eligible courses up to the number of hours in their degree program, irrespective of a qualifying assistantship. Such tuition waivers cannot apply to leveling or outreach-exception type courses. The McNair Graduate Fellow Tuition Waiver Program is competitive and is not guaranteed, irrespective of the McNair application waiver received. Please contact the Graduate College (grad-i@okstate.edu (gradi@okstate.edu)) for more information as restrictions apply. Also, note that all graduate student benefit programs, such as the McNair Graduate Fellow Tuition Waiver Program, are only available to individuals with a primary classification as degree seeking graduate students. OSU employees taking graduate classes do not qualify for graduate student benefit programs, irrespective of whether their employment is a benefit eligible position. One cannot opt-out of certain benefits in an a-la-carte manner to seek eligibility for other benefits. Please contact the Graduate College or Human Resources with additional questions.

3.10 City Year National Service Scholars.

Oklahoma State University is proud to partner with City Year through our shared visions and values of integrating the power of knowledge and service in addressing social problems. The OSU Graduate College City Year National Service Scholars Program provides City Year Alumni an application fee waiver and a tuition waiver for all degree-eligible courses up to the number of hours in their degree program; however, acceptance as an OSU Graduate College City Year National Service Scholar is competitive and is not guaranteed. Please contact the Graduate College or grad-i@okstate.edu for specific requirements.

3.11 Spouse/Partner Tuition Waivers.

A spouse/partner of a graduate teaching or research assistant who is receiving a tuition waiver that is associated with an eligible assistantship is eligible to apply for a waiver of the non-resident portion of tuition for all graduate level/eligible courses taken. Tuition waivers cannot apply to independent study, leveling, or certain outreach-type courses. Contact the Graduate College for details.

3.12 Student Employment.

Career Services provides assistance to OSU students seeking part-time employment or work study programs. Students are informed of job opportunities on campus and in the Stillwater community. Applications are available in room 360 Student Union. Jobs on campus usually offer 12 to 20 hours of work per week in clerical, technical, food service, or general labor positions. Rate of pay and work schedules vary.

Individual job search assistance is available with the graduate career consultant in the Student Union Career Services Office or with any of the college career consultants located in the respective disciplinary colleges. Services include resume and curriculum vitae development, written correspondence assistance, mock interviews and interview preparation, academic and non-academic job search assistance, workshops, and career fairs.

4.0 Admission to the Graduate College

Holders of baccalaureate or first professional degrees from accredited colleges and universities or those of recognized standing are eligible to seek admission to the Graduate College. Applicants must complete the web-based application and submit transcripts of all academic work and degrees received including any previous graduate coursework and degrees. No application for admission will be reviewed until the application fee is paid.

The prospective student should obtain transcripts for bachelor's degree(s) conferred or pending as well as for any graduate or professional coursework and upload these transcripts as part of their application (some programs may require applicants to upload transcripts from all institutions previously attended). If an applicant is offered admission to graduate studies, they will be required to have official transcripts submitted to the Graduate College.

To be official, transcripts must be issued from the school and must show the complete scholastic record, bear the official seal of the institution, be signed by the issuing officer, and be in a sealed envelope, or electronically delivered directly from the issuing institution. All transcripts become the property of OSU and are not released or returned.

When the applicant's file is complete, the faculty in the graduate program of the student's area of interest reviews the material and recommends an admission status to the dean of the Graduate College. The final decision for admission to the Graduate College is made by the graduate dean based on the graduate program's recommendations, prior academic performance of the applicant, and availability of space, facilities, and faculty mentors in the program. Admission decisions may be rescinded for reasons including but not limited to: the discovery of fraudulent statements or documents in the application; official test scores that become invalidated by testing agencies; and/or conduct/communication deemed to be threatening, harassing, or otherwise unprofessional. Admissions decisions are not appealable.

4.1 OSU Faculty Members.

No member of the faculty, with the rank of associate professor or above or equivalent rank at the time of completing the requirements, may be granted a graduate degree or certificate from this institution. This regulation also applies to faculty members in the schools of engineering holding the rank of assistant professor or above.

4.2 Types of Admission.

Admission to a graduate program at OSU is based on an evaluation of an applicant's overall record, experience, personal qualifications, proposed area of study, and fit with the graduate program. For admission without qualification, a GPA of at least 3.00 on a 4.00 scale or the equivalent is expected in undergraduate coursework or a 3.00 in any graduate or professional coursework already completed. Graduate programs are encouraged to evaluate applications holistically and may petition the Graduate College on behalf of an applicant for an exception to the cumulative GPA requirement. Academic programs may set more stringent admission requirements. Please check with the graduate program to which you are applying in order to determine any program specific requirements.

4.2.1 Admission Without Qualification.

Students planning to work toward a graduate degree in a recognized graduate program may be admissible without qualification - meaning they are in good standing - provided they meet all Graduate College and graduate program requirements.

4.2.2 Admission With Qualification.

Students planning to work toward a graduate degree in a recognized graduate program may be admissible with qualification - meaning subject to certain requirements - in order to attain good standing. A student can be offered provisional admission upon recommendation of the graduate program and with concurrence by the dean of the Graduate College. Admission with provisional status is granted to an applicant who does not meet one or more of the graduate program's admission requirements or when the applicant does not have all of the previous coursework. In this case, the graduate program requires specific provisions be met for admission in good standing. For example, a graduate program may require additional leveling coursework or higher test scores. The first obligation of a student admitted provisionally is to successfully meet all the provisions specified at the time of admission. Failure to meet these provisions could result in the dismissal from the program.

4.2.3 Admission With Academic Notice.

A student can be admitted with academic notice upon recommendation of the graduate program with concurrence by the dean of the Graduate College. Admission on academic notice is granted to an applicant who has deficiencies in previous academic coursework. A student admitted on academic notice must make at least a 3.00 GPA through the semester in which they complete nine hours of courses eligible for graduate credit. Upon successful fulfillment of these requirements the student will be granted good academic standing. Failure to meet the required level of academic performance while in probationary status may result in dismissal from the Graduate College.

4.2.4 Conditional Admission.

Several graduate programs at OSU will consider an applicant for conditional admission. An applicant can be admitted conditionally upon recommendation of the graduate program and with concurrence by the dean of the Graduate College. Conditional admission means that the applicant is academically qualified for admission to the graduate degree program but lacks a minimum English proficiency test score which satisfies the University's or graduate program's minimum (see "4.4 International Student Admission" for minimum requirements).

4.3 Non-Degree Seeking Student Status.

An applicant may be admitted to the Graduate College as a non-degree seeking student if they do not have immediate plans to become a degree candidate but wants to take graduate courses. Admission to the Graduate College as a non-degree seeking student means only that the student will be permitted to enroll in courses through the Graduate College. It does not imply that the student has been or will be admitted to a graduate program leading to an advanced degree or that the student will be able to obtain a graduate degree from OSU. Non-degree seeking students are not eligible for GTA or GRA positions or associated tuition waiver benefits.

4.3.1 Non-Degree Seeking Student Status Requirements.

Non-degree seeking students are subject to the same admission standards as degree-seeking students, including English language proficiency. Applicants for non-degree seeking student status are not automatically admitted without due deliberation of their past academic performance. A non-degree seeking applicant can be considered for admission "Without Qualification" provided their overall GPA is 3.00 or higher for all courses on their bachelor's degree transcript and/or transcripts from their graduate or professional coursework. An applicant whose GPA does not meet these criteria can be considered for admission

after consultation and recommendation of the Graduate College's non-degree seeking student advisor who may consider additional factors in making a decision, such as the following:

- length of time since last attendance at an institution of higher learning,
- a written appeal from the applicant explaining exceptional circumstances that warrant admission, and/or
- a letter of recommendation written by faculty who can speak to the applicant's potential for graduate work.

The prospective student is responsible for filing a new application for admission to the Graduate College should they wish to become a degree-seeking candidate. The new application will be evaluated by the graduate program and the dean of the Graduate College to ascertain admissibility to the degree program.

Given that non-degree seeking coursework is not guided by a Plan of Study or approved by an advisor, no more than nine semester credit hours of coursework taken while a non-degree seeking student may be used on a Plan of Study to meet requirements for a graduate degree (including a graduate certificate) program. In addition, only three semester credit hours of coursework taken while a non-degree seeking student may be used on a Plan of Study toward an MBA degree. Non-degree seeking students may not enroll in more than nine hours of courses eligible for graduate credit without permission of the dean of the Graduate College. To ensure that non-degree seeking students do not inadvertently exceed this limitation, an enrollment hold will be placed on each student's record in this status after the student has registered for six or more credit hours. This hold may be removed by the Graduate College (see below) once the student has formally re-acknowledged this nine-hour limitation.

Non-degree seeking students are subject to the same academic regulations as those graduate students admitted into degree programs. Such students are strongly encouraged to consult with the instructor of any course in which they intend to enroll in order to ensure they are adequately prepared for that course.

Non-degree seeking students may not enroll in thesis (5000) or dissertation (6000) courses.

Generally, International students with an F-1 visa, except students on Optional Practical training (OPT) or Curricular Practical training (CPT), may not be admitted or enroll as non-degree seeking students.

Academic advising for non-degree seeking student is provided by an advisor in the Graduate College. Students should contact the Graduate College at 405-744-6368 or grad-academici@okstate.edu for details.

4.4 International Student Admission.

International applicants are expected to submit applications, financial affidavits, transcripts and/or mark sheets, and, if required, official scores from an English proficiency examination. Completed applications and program recommendations for international applicants are due no later than February 1 for summer enrollment; May 1 for fall enrollment; and October 1 for spring enrollment. Applications that become complete after these deadline dates may be reviewed, but the Graduate College cannot guarantee application processing and an admissions decision be made in time. In these cases, applicants may request admission deferral.

4.4.1 English Proficiency.

As a condition of admission to graduate study at OSU, all persons for whom English is a second language are required to present proof of English competency regardless of the number of semesters or terms completed at OSU or in other institutions of higher education. A waiver of this requirement can be obtained for students who have completed a baccalaureate or graduate degree from an accredited institution of higher learning, at which English is the primary language of instruction, located in a country in which English is a recognized primary language. Note, that additional testing on-campus may be still necessary if employment as a graduate teaching assistant is desired. Graduate programs may have additional requirements.

Proof of English competency can be in the form of an official examination that must have been taken within the last two years.

Applicants who present a TOEFL score of at least 79 iBT/550 PBT or a PTE academic test score of at least 53, or an IELTS academic stream score of at least 6.5 satisfy the Graduate College's English proficiency requirements for admission to a graduate program. Note that some graduate programs require an English proficiency score or other tests above these levels, and applicants should contact the program for specific language requirements.

Applicants who present a TOEFL score of at least 61 IBT/500 PBT, but at less than 79 IBT/500 PBT, or a PTE academic test score of 44-52, or an IELTS score of 6.0, and, who demonstrate unusual academic promise may be admitted to graduate study on a conditional status upon petition to the Graduate College by the graduate program. Such applicants must successfully complete a minimum of 12 weeks of study at an intensive English program (IEP) approved by the Oklahoma State Regents for Higher Education State Regents. At least two-thirds (eight weeks) of the 12 weeks must be instruction at an advanced level. A list of State Regents' approved IEPs can be found in the OSRHE Academic Affairs Procedures Handbook. The OSU intensive English program, known as the English Language Institute (ELI), is a state-approved IEP. More information on the OSU ELI program can be found here https://global.okstate.edu/elic/index.html (https://global.okstate.edu/elic/).

Applicants, who do not submit a test score, can also seek admission to the OSU English Language Institute (ELI) in their first semester. These students will be issued an I-20 by ELI. After successful completion of an approved 12 week ELI program as described above, the student will be eligible for admission to their graduate program and will be issued an I-20 by the Graduate College. Concurrent enrollment in graduate courses and ELI is not permitted.

4.4.2 Spoken English Proficiency for Employment.

OSU policy requires all persons for whom English is a second language to demonstrate an acceptable level of spoken English before being employed in an instructional capacity, including laboratory assignments. Graduate students who serve only as laboratory assistants (e.g., setting up and/or maintaining equipment) or graders are not required to comply with these provisions. Any new international teaching assistant (ITA) is required to have a qualifying score of 26 or greater on the speaking portion of the iBT; a qualifying score of 8.5 or greater on the speaking portion of the IELTS academic test; or, take the ITA test prior to being approved for instructional assignments. All new ITAs are also required to participate in the international teaching assistant orientation. Any new international teaching assistant (ITA) who submits a PTE is required to take the ITA exam prior to being approved for instructional assignments. See https://gradcollege.okstate.edu/prospective-students/ita-exam-overview/index.html (https://gradcollege.okstate.edu/prospective-students/international-teaching-assistant-test.html) for specific policy requirements.

5.0 Transfer of Graduate Credits

Transfer credit for "non-aged" courses must be recommended by the graduate student's advisory committee through the submission of a Plan of Study, which requires approval by the dean of the Graduate College. See Section 7.0 for additional information on coursework time limits.

Transfer credit will only be considered if it was earned when the student was post-baccalaureate (i.e., after earning a bachelor's degree) at an accredited institution and the applicable course(s) was/were certified as graduate credit by that institution. All courses used as transfer credit must have a grade of "B" or better. Requests for transfer credit must include an official transcript.

Transfer of credits from medical professional programs (e.g., DO, DVM and MD) to graduate degrees may also be considered when a student was admitted to a medical professional program at an accredited institution and the applicable courses were certified for enrollment restricted to professional-level study. All courses used as transfer credit must have a grade of "B" or better or a grade of "pass" for those institutions which only offer professional courses as a "pass/fail" grading system. An official transcript must be submitted to the Graduate College in order to receive approval for transfer credit on the plan of study.

Up to three hours of transfer credit may be used toward an OSU graduate certificate and up to nine credit hours of transfer credit may be used toward any OSU graduate degree. A doctoral student may transfer more than nine hours if they have completed a master's degree and if the courses are approved by their advisory committee. Doctoral students must include a minimum of 30 hours of OSU credit on their Plan of Study.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

6.0 Enrollment Policies

6.1 Initial and Continuous Enrollment Policy.

A prospective student must enroll in courses at OSU within the time frame specified in the admission letter to retain active status. A prospective student who does not conform to these conditions must reapply for admission.

Any student who interrupts enrollment for one year (i.e., a consecutive period of one fall semester plus one spring semester plus one summer term) must re-apply for admission, and will be subject to the regulations in effect at the time of reapplication. See section 6.6 below for additional doctoral candidacy enrollment requirements.

6.2 Full-Time Enrollment.

To be considered enrolled full time, a graduate student must be enrolled in at least nine hours in either fall or spring semester and at least three hours during the summer sessions. Full-time enrollment for Graduate Teaching/Research Associate/Assistants (GTAs/GRAs) with a 0.50 FTE appointment is at least six hours in either fall or spring semester and at least two hours during a summer session.

6.3 Minimum and Maximum Enrollment.

Students are required to be enrolled in at least two credit hours in each semester in which they are using University resources (e.g., physical - laboratory, studios; electronic – library holdings; computing; human - faculty, staff). Students holding graduate assistantships should note that additional requirements apply (see below). Regardless of the number of hours taken, a student may not enroll in more than 12 (16 for the Spears School of Business graduate programs; 24 for the Physician Assistant Studies program) credit hours in the fall or spring semester without permission of the dean of the Graduate College. During the summer session, a student may not enroll in more than nine (15 for the Physician Assistant Studies program) credit hours taken in any session during the eight-week summer period. No more than three credit hours can be taken during the first summer session (intersession). Summer intersession is defined as any course that begins after the end of the spring semester and ends prior to the beginning of the eight-week summer session. For any short course session less than eight weeks in length, enrollment shall not exceed one credit hour for each week.

International students on F-1 or J-1 visas must maintain full-time status (as defined above) during the first semester of enrollment, and during each fall and spring semester thereafter.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

6.4 Graduating Semester Enrollment.

Degree-seeking graduate students must be enrolled in at least two credit hours of courses eligible for graduate credit during their graduating semester (defined as the semester in which they satisfactorily complete all degree requirements). However, a student would not need to be enrolled during their graduating semester if they meet all of the following conditions:

1. has been assigned an "Incomplete" (grade of I) in a non-research or creative component course;
2. the course is required for graduation; and,
3. the course in which the incomplete was received is the only graduation requirement left to fulfill.

Students must enroll in research, thesis, or dissertation hours, as appropriate, during each semester in which they are involved in research leading to a thesis or dissertation, irrespective of the number of credit hours of such courses either required or permitted for the degree.

6.5 Doctoral Candidacy Enrollment Requirements.

Doctoral students who have completed the requirements for admission to doctoral candidacy and had their "Admission to Doctoral Candidacy" form approved by the dean of the Graduate College may enroll in a minimum of at least two credit hours during any term and be considered full-time. This post-candidacy reduced enrollment option applies to all qualified graduate students, including GTAs, GRAs, international students, and veterans receiving VA benefits. A student is normally expected to primarily enroll in research hours or in program-approved courses after being admitted to doctoral candidacy.

Continuous enrollment post-candidacy is required of all students. Enrollment of a minimum of at least two credits per semester is required for every semester of a student's candidacy (summer session excluded, unless utilizing university resources) until graduation. It is ultimately the responsibility of each student to ensure that they meet this enrollment requirement. Students who are not able to maintain active status are strongly encouraged to consult with their program, advisor and the Graduate College to determine whether requesting a Leave of Absence (LOA) is the most appropriate course of action.

6.6 Reinstatement Fee.

Post-candidacy students who do not maintain continuous enrollment will be assessed a reinstatement fee based upon their residency status at the time of last enrollment as follows:

- Resident: $750/semester (summer session excluded) of non-enrollment
- Nonresident: $1,900/semester (summer session excluded) of non-enrollment

In addition to the reinstatement fee, students whose continuous enrollment disruption exceeds one academic year also must apply for readmission to the graduate program (see Enrollment).

During the readmission process, previous coursework will be evaluated for applicability in accordance with coursework (10 years) and time-to-degree (9 years) time limits (see Time to Degree Requirements).

Notification of the conditions of readmission and reinstatement will be provided if an acceptance occurs. New program requirements may apply based on the aforementioned enrollment policy. Please note that reinstatement and readmission are not guaranteed and significant challenges may occur that hinder a student's ability to complete a degree after a lapse in enrollment, such as the reapplication process (e.g., new letters of recommendation and unexpired standardize test scores); availability of the same graduate advisor, project and/or grant support; and new/revised program requirements, and/or core courses for degree.

6.7 Enrollment and Financial Assistance.

For the purpose of receiving monetary assistance through the Office of Scholarships and Financial Aid, the amount of the award is related to the total number of enrolled credit hours that apply toward the degree (for graduate students, such courses must be offered for graduate credit), such as 5000 and 6000 level courses. OSU graduate certificate and master's, specialist, and doctoral degree programs are federal aid-eligible programs, depending on a person's personal circumstances.

In general, a graduate student must be enrolled in four hours of courses eligible for graduate credit each fall and spring semester, and two hours of courses eligible for graduate credit in the summer term, to be eligible for federal financial aid. Some students may be required to enroll in more hours in the fall or spring or summer to receive the full amount of federal financial aid. Students should verify with their financial aid advisor in the OSU Office of Scholarship and Financial Aid about the number of hours they are required to take. Certifiable enrollment status, based upon a combination of enrollment and employment, only assists with the deferral of loan repayments, never qualification for aid, which is based solely on enrollment.

6.8 Enrollment as a Non-Degree Seeking or Degree-Seeking Graduate Student.

Students with a bachelor's degree are expected to enroll in the Graduate College unless they want to obtain another bachelor's degree. If they enroll as an undergraduate student, the courses taken cannot be given graduate credit at a later date.

6.9 Graduate Student Enrollment in Undergraduate Courses.

Students admitted to the Graduate College may enroll in, or audit, undergraduate courses or course sections that do not carry graduate credit if approved to do so by their graduate faculty advisor. Such courses cannot subsequently be used as part of a graduate Plan of Study and are not generally covered by graduate tuition waiver programs.

6.10 Undergraduate Student Enrollment in Graduate Courses.

An OSU undergraduate senior may take a limited number of courses for graduate credit toward an OSU degree program. Undergraduates admitted to an approved OSU accelerated master's degree program may utilize some of these credits for both a baccalaureate degree and graduate degree as outlined in section 11.15 of the Graduate College section of the University Catalog. All other undergraduates are subject to the graduate credit rules below.

The credits may not be utilized for both a baccalaureate degree and a graduate degree. The courses in question must be approved for graduate credit (as listed in the Course Catalog). The applicability of such graduate courses to a specific graduate program will be determined by the student's graduate advisory committee when the student enrolls in the Graduate College and submits a Plan of Study for an advanced degree.

To receive graduate credit for hours taken when not admitted to an approved OSU accelerated master's degree program, a Graduate Credit for Seniors form must be completed by the student to receive graduate credit for courses taken. This form must be submitted prior to the end of the second week of class instruction of a regular semester, or the first week of a regular summer session. The required form is available on the Registrar's website or upon request to grad-i@okstate.edu.

Such credit may be earned only if the following conditions are satisfied at the time of application:

1. Students must have a minimum overall (cumulative graduation/retention) undergraduate GPA of 3.00.
2. The total semester enrollment must not exceed 18 credit hours for a regular semester or nine credit hours for a summer session.
3. The student must be within 12 semester credit hours of completing requirements for the baccalaureate degree at the beginning of the semester or summer session in which courses are taken for graduate credit.
4. Admission to courses taken for graduate credit must have approval of the course instructor, the dean of the disciplinary college associated with the student's major, and the dean of the Graduate College.

No more than 9 semester credit hours taken while a senior may be approved for graduate credit. The student must earn a grade of "B" or higher in those courses for which he or she seeks graduate credit. Students are cautioned that institutions other than OSU may or may not allow courses taken for graduate credit during the senior year to be transferred into one of their graduate degree programs.

7.0 Time to Degree

Graduate College matriculation starts when a student first enrolls as an admitted, degree-seeking graduate student. That date will be used in calculating time limits for degree completion.

Students are expected to complete the degree requirements from first enrollment after admission within the following time limits: seven years for a graduate certificate degree program, seven years for a master's or specialist degree program, and nine years for a doctoral degree program. After that time, a student must submit a written petition to the Graduate College requesting an extension of time-to-degree limits. Credit for all

courses on a graduate Plan of Study must have been awarded within ten years of completion of all degree requirements. Any exception to these time limits must be approved by the dean of the Graduate College.

7.1 Leave of Absence.

OSU graduate students are expected to maintain active status through continuous enrollment from the time they matriculate until they graduate. Students who are not able to maintain active status are strongly encouraged to consult with their program, advisor, and Graduate College to determine whether requesting a Leave of Absence (LOA) is the most appropriate course of action. International students must consult with the International Students and Scholars (ISS) office to ensure compliance with Federal immigration policy. Example situations that may lead a student to explore a Leave of Absence request are medical, personal, and employment (see below for students seeking a leave of absence for military service). Students who do not have an approved leave of absence and are not continuously enrolled may experience negative consequences related to academic, visa, financial aid, and other student issues – see University policies and guidelines for additional information. A student status of "good standing" (academic and conduct) is generally required for a Leave of Absence. However, students placed on academic probation one semester prior to the semester that the LOA is requested to begin are eligible. Additionally, those students placed on academic probation in an earlier semester and remain on academic probation, but whose academic performance has consistently improved since the onset semester of probationary status, are eligible. Please see https://gradcollege.okstate.edu/resources/current-student-resources.html for additional Leave of Absence information.

Students who are members of the Armed Forces (including reserve components) who receive orders to perform a period of service should refer to OSU Leave of Absence for Military Service regulations.

8.0 Enrollment Procedure

Students are strongly encouraged to review the course offerings for the upcoming semester prior to attempting to enroll. For more information about enrollment and classes go to http://my.okstate.edu.

First semester graduate students must first obtain their advisor's clearance prior to enrolling.

Non-degree seeking students may be granted enrollment clearance through the Graduate College. Non-degree seeking students will be provided assistance with selecting coursework, issues surrounding the transferability of special student credits, applying to degree-seeking programs, and other academic topics.

If the student has not completed a Plan of Study or if this is the first semester as a graduate student, the student should consult with the graduate faculty advisor. The graduate faculty advisor can provide information about required courses, course sequencing, and other information in order to select appropriate courses. The advisor should give approval for course selections prior to enrollment.

If a Plan of Study has been completed, the student should verify that all planned courses are listed on the Plan of Study. Students should consult with their advisor any time they deviate from courses listed on the Plan of Study. The ultimate responsibility for completing degree requirements rests with the student.

Students who have active academic, financial, transcript or advising holds must clear these holds prior to attempting to enroll. Students can view any holds by logging into the Self Service portal at http://my.okstate.edu.

8.1 Last Day to Enroll.

Information regarding dates to enroll, when courses begin, and last days to drop are listed in the Class Schedule available at the Office of the Registrar's website at http://registrar.okstate.edu.

Generally, the sixth class day of a regular semester or the third class day of an eight-week session is the last day a course may be added (nonrestrictive) via the student enrollment system. A short course may be added no later than the first day of the short course.

8.2 Late Enrollment.

Graduate students should enroll prior to the end of the official enrollment deadline for the semester. If they do not, there are limited options to enroll in classes. The options available to the student depend on the number of weeks past the deadline and the student's current enrollment status.

During the second week of fall/spring or first week of an eight-week session:

- If a student wishes to add course hours or is not currently enrolled, they must submit a drop/add card signed by their advisor giving permission to enroll.
- If the student is adding a course they must have the instructor's signature on the add/drop card.
- If a student is non-degree seeking, they must have the signature of the dean of the Graduate College and the instructor of the course in which they wish to enroll.

After the second week of fall/spring or first week of an eight-week session graduate students may add any course which has not started.

After the Late Enrollment (restrictive deadline) period, due to special circumstances and under certain conditions, students may complete the Petition to Add a Course After the Restrictive Deadline (https://ostatemailokstate.sharepoint.com/sites/Registrar/regresources/Registrar%20Forms/Petition%20to%20Add%20Course%20After%20Restrictive%20Deadline.pdf) form to add a course. Submitting the petition does not guarantee approval of the request.

8.3 Other Enrollment.

In order to enroll in a given semester, a student must have received grades for at least six semester credit hours (including "I" and "R" and excluding "W") in the 12 months prior to the beginning of that semester.

9.0 Online and Outreach Courses

Courses offered online are considered equivalent to courses offered through traditional formats. However, some online courses classified as outreach may not be eligible for tuition waivers. Check with the Graduate College for eligibility before enrolling. Any student wishing to enroll in a graduate credit course offered online or through outreach must apply for admission to the Graduate College at OSU. Some limitations apply to International students on F-1 or J-1 visas and students on spousal/partner waivers (see Section 3.11).

10.0 Individual Study Credit (formerly Correspondence Education)

OSU does not offer graduate-level courses by individual study (formerly correspondence education) and does not accept credit taken by

individual study toward an advanced degree. Graduate students may enroll in individual study courses; however, such courses will not be considered as part of minimum graduate degree or certificate requirements. Tuition waiver programs are not applicable to courses taken through individual study. Courses taken through individual study do not count toward minimum enrollment requirements for any graduate student.

11.0 Academic Regulations

Also refer to "University Academic Regulations (p. 1004)" section in the Catalog.

11.1 Graduate Credit Courses.

Courses numbered 5000 and above are for graduate students. Seniors who have obtained prior approval from the Graduate College may enroll in graduate level courses in accordance with the provisions of "Enrollment" stated earlier.

11.2 Number of Times a Course Can be Used to Earn Multiple Degrees.

Typically, a graduate course can be used in more than one certificate or degree. For example, a student may initially earn a graduate certificate and later use the certificate coursework to earn a master's degree. Similarly, coursework from a master's degree may also be applied toward a doctoral degree. In both cases, the course credit has been used twice in earning the two graduate credentials – the certificate and the master's degree and a master's and a doctoral degree, respectively.

With approved Plans of Study, graduate courses can be used to earn no more than three degrees, (degrees include undergraduate and graduate certificates). This applies to both OSU courses and courses approved for transfer credit. This policy does not refer to the use of research credits, which cannot be used for multiple degrees.

11.3 Grades for Thesis (5000) and Dissertation (6000).

The grade of "SR," indicating satisfactory research progress, "UR" indicating unsatisfactory progress, or "IUR" indicating an incomplete (see section 6.2 "Grade Interpretation" in the "University Academic Regulations" chapter of the Catalog) will be assigned to thesis (5000) and dissertation (6000) courses at the end of the semester in which the course is taken. These grades are permanent and have no impact on a student's grade point average, but affect the graduate student's academic standing. Only courses in which a grade of "SR" (or a previously-awarded grade of "R," "A," "B," or "C") is earned may be used toward minimum degree requirements.

11.4 Grades for Creative Component Courses.

The "R" grade can be assigned in a course identified as a creative component portion of a master's degree by a graduate program. The grade of "R" may be assigned if more than one semester is required to complete the creative component. Upon completion of the creative component, the advisor submits a Change of Grade form to have the final grade entered.

11.5 Pass-No Pass Grading System.

Graduate students may take a course utilizing the Pass-No Pass grading system with the consent of their faculty advisors, but courses taken under this system cannot be used on a Plan of Study to meet graduate degree requirements. A student who chooses the pass-no pass option must do so by the last date on which a course may be added. See section 6.6 "Grades and Grading" in the "University Academic Regulations (p. 1004)" chapter of the Catalog.

11.6 Pass-Fail Grading System.

Graduate students may take courses utilizing the Pass-Fail grading with the consent of their faculty advisors; however, only a limited number of these hours can be used on a Plan of Study to meet graduate degree requirements, and these require advance permission of the dean of the Graduate College. Pass-Fail courses are typically internship, practicum, clinicals, seminar, special problems, and student teaching. See section 6.7 "Grades and Grading" in the "University Academic Regulations (p. 1004)" chapter of the Catalog.

11.7 Minimum Grade Requirements.

A grade-point average of "B" (3.00) is required to maintain good standing as a graduate student and meet requirements for a degree. No course with a grade of "D" or "F" can be used on the Plan of Study to satisfy the degree course requirements. At the graduate level, a grade of a "D" or "F" is a failing grade that can result in dismissal by the dean of the Graduate College, regardless of academic standing. To receive a graduate degree, a student must have a minimum 3.00 GPA in the coursework taken for graduate credit.

No course with a grade below "C" can be used as part of the minimum number of semester credit hours required for the graduate degree.

Some programs have more stringent requirements. The graduate program should be consulted concerning minimum grade requirements.

11.8 Annual Review of Student Progress.

The graduate program in which a student is seeking a graduate degree will provide a mechanism for assessing the student's progress toward degree completion at least once annually. If it is determined the student is not to be making adequate progress, then a specific plan to address and correct any inadequacies in progress will be prepared in a written document provided to the student and the dean of the Graduate College annually by June 30. Failure to correct these inadequacies may result in termination from the graduate program and/or Graduate College.

11.9 Academic Progress.

Each semester, the dean of the Graduate College reviews the academic progress of any graduate student who receives a grade of "F", "NP," "C" or lower in a class or "UR" in research. At the discretion of the dean of the Graduate College, one of four actions based on the student's current semester performance and past academic history will be taken as follows:

1. Program Notice. The graduate program is notified and is encouraged to review the student's performance to determine if any program intervention is needed.
2. Academic Notice. If a student's overall GPA drops below a 3.00, if a "F," "NP," or "UR" grade is earned, or if the dean of the Graduate College judges the student's overall academic performance so warrants then they are subject to being placed on academic notice. At the discretion of the dean of the Graduate College, this notice may be removed at the end of the semester only after the student brings his or her cumulative GPA for courses eligible for graduate credit taken at OSU to 3.00 or greater, earns a "P" or "SR" grade, and/or completes all degree requirements, whichever comes first.
3. No Further Enrollment Without Program Consent (NFEWPC).
   a. If the student was admitted on academic notice and did not meet the requirements of this admission, or

b. If they have received two consecutive grades of "F", "NP," and/or "UR", or
c. If the student was on academic notice the previous semester, or
d. If the dean of the Graduate College believes the student's overall academic performance warrants program intervention, then the student is not permitted to enroll further without the consent of the program. To continue in the program, the student must submit a written petition to the dean of the Graduate College requesting reinstatement and outlining a plan to remedy the academic situation. This petition must be accompanied by a letter of support from the unit head or graduate program coordinator. Failure to submit such a reinstatement petition could result in the cancellation of any pre-enrollment for the upcoming semester.

4. No Further Enrollment (NFE). The student has consistently performed below the acceptable standards for graduate students. The student is not permitted to continue graduate study at OSU.

11.10 Course Grade Appeals.

A student may appeal a grade given by an instructor in a case in which they believe the grade awarded is inconsistent with the announced grading policy. The student should consult the "Student Rights and Responsibilities" or contact the Office of Academic Affairs for information regarding initiating the appeals process.

11.11 Appeals of Research Grades and Non-grade Issues.

A student wishing to appeal a "UR" grade issued for a research course (5000 or 6000), or an academic issue not involving a grade should contact the dean of the Graduate College about the appeals process available to graduate students.

11.12 Advisory Committee Decisions-Criteria for Passing.

In decisions resulting from a vote of a graduate student advisory committee (e.g., PhD candidacy exam, final thesis defense, or approving a dissertation), a pass requires that no more than one member of the committee dissent. Graduate programs may impose more stringent requirements.

11.13 Discontinuance from a Program.

In instances when a student reaches a situation when it is no longer possible to complete the intended degree (e.g., failure of all permitted attempts of the PhD qualifying exam, comprehensive exam or candidacy exam), and is still in good academic standing with the Graduate College, a domestic student may be considered for transfer to non-degree seeking student status and be subject to all non-degree seeking student rules (including maximum number of hours that can later be used toward a graduate degree or certificate program). If visa restrictions prohibit the student's matriculation as a non-degree seeking student, the Graduate College will inform the Office of International Students and Scholars of the student's impending dismissal from the program; the student will have until the end of the semester to be admitted into another graduate program. This change in status is initiated with a letter from the unit head or graduate program coordinator to the student, copied to the dean of the Graduate College, and should detail the reasons for the student's potential dismissal from the program. In accordance with graduate program policies, students have a limited number of days from the intent to dismiss letter date to initiate the appeals process in the program. Graduate students should contact the dean of the Graduate College about the appeals process.

11.14 Second Graduate Degrees.

The Oklahoma State Regents for Higher Education (OSRHE) do not allow students to obtain a second degree in the same "major" as the first degree, even if the options are different. For example, it is not possible to earn both an M.S. degree in Electrical Engineering with an option in Control Systems and an M.S. degree in Electrical Engineering with an option in Optics and Photonics.

Completion of requirements for more than one option may be noted on the official transcript, but a second degree will not be awarded. Additionally, because of the OSRHE requirement for a coursework common core within master's degree options, it should not be assumed that obtaining an additional option within the same degree program and level will be possible. Careful discussions and planning with the graduate program coordinator prior to admission is imperative, if such study is desired.

While graduate and professional students may simultaneously pursue more than one degree and/or certificate, pursuing a second doctoral degree is not allowed without preapproval of the dean of the Graduate College prior to the application for admission.

11.15 Accelerated Master's Degree

Accelerated master's degree programs offer a streamlined path to a master's degree, reducing the time to earn a master's degree by sharing up to 30 percent of the coursework required for the stand-alone master's degree with the undergraduate degree. All shared courses must be approved for graduate credit. For example, a 30-hour master's degree may share 9 hours with the undergraduate degree, while a 45-hour master's degree may share 14 hours. The curriculum of an accelerated master's degree program is designed to fulfill all requirements of both the undergraduate and graduate degrees. Accelerated bachelor to master's degree programs require approval of the deans of the Graduate College and the relevant undergraduate college(s).

11.16 Awarding of Certificates and Degrees

The retroactive awarding of a newly approved graduate degree or certificate for prior coursework is prohibited. The majority of the coursework (greater than 50 percent) for a graduate certificate must be completed after the student is admitted to and enrolled in the degree program.

11.17 Theses and Dissertations

All students' theses, dissertations, and derivatives of these works are considered Personal Works under Section 7.02 of OSU's IP Policy 1-0202, and the student will own the copyright unless otherwise provided by the IP Policy. The University, however, retains a non-exclusive, irrevocable, royalty-free license to reproduce, distribute, and publish the works for any purpose without appropriate attribution.

12.0 Responsible Conduct of Research

All graduate students must complete Responsible Conduct of Research (RCR) training requirements prior to the submission of a Plan of Study. Students should consult with their graduate program coordinators as to what these requirements are in their programs. Graduate programs may impose more stringent requirements. A Plan of Study will not be approved by the dean of the Graduate College until the graduate program

has certified RCR completion. Information and University policies regarding RCR can be found at https://research.okstate.edu/compliance/policies.html.

12.1 Research Involving Human Subjects.

If the thesis, dissertation, formal report, or creative component involves the use of human subjects, the research project is governed by federal regulations that require review by the OSU Institutional Review Board (IRB). Approval to conduct the research must be obtained from the IRB before the research is started.

Failure to obtain IRB approval will result in the University's rejection of the thesis, dissertation, or formal report. While the Graduate College does not monitor degree capstone/creative components, this does not negate the student's responsibility to obtain IRB approval if human subjects are involved in that capstone/creative activity.

This section is meant to be informational only and does not contain a complete description of the IRB review process. All of the forms and guidance for completing the application are available on the IRB website https://research.okstate.edu/compliance/irb/forms.html.

13.0 Graduation Clearance Process

At the time of enrollment for the last semester or summer session of work toward a degree, graduate students must complete a Graduation Application with the Office of the Registrar. Completing the Graduation Application indicates that a student has met or will meet by the end of the semester in question, all program and Graduate College requirements to earn the degree they are seeking. If these requirements are not met, the student must complete a new Graduation Application for a future semester. The Graduation Application should be submitted as early as possible in the graduating semester but no later than the deadlines listed on the Graduate College Calendar.

13.1 Graduate Commencement and Diplomas.

The University holds one Graduate Commencement Ceremony at the close of the fall and spring semesters. Students who plan to meet graduation requirements at the close of the summer session are invited and encouraged to participate in the Graduate Commencement Ceremony at the close of the previous spring semester or return for the next ceremony on the fall. Although attendance is not compulsory, the University encourages all candidates for advanced degrees to participate in the Graduate Commencement Ceremony. Candidates should also notify the Office of the Registrar of the address to which the diploma should be mailed.

13.2 Graduate Records and Transcripts.

All permanent records are in the Office of the Registrar. Requests for grades, transcripts, diplomas, and degree-completion letters should be made to that office.

A graduate student who does not complete the requirements in time to receive the degree at the end of the semester may secure a statement from the Office of the Registrar when all requirements for the degree have been satisfied. Such a statement will not be issued until all grades for the semester have been recorded.

14.0 Interdisciplinary Studies, MS

Carol Powers, PhD — General Program Coordinator

The MS in Interdisciplinary Studies offers students the flexibility to create a program of study to fit background, experience, and career goals. By stacking graduate certificates and/or other focused graduate coursework, students can tailor their degree to make the most of their education. The MS is for students who wish to increase their competence in a particular thematic area(s) by taking a series of courses in several disciplines. This multidisciplinary approach provides educational opportunities leading to a variety of careers. Interdisciplinary studies consist of no fewer than two separate fields of study. The advisory committee will assist the student in formulating the Plan of Study.

14.1 Admission Requirements.

An undergraduate grade-point average of 3.00 is required for unqualified admission. Students with a grade-point average less than 3.0 may be admitted on academic notice with approval of the dean.

Applications to the program should include:

1. a cover letter indicating the personal goals and professional objectives to be obtained from the program;
2. transcripts from all schools previously attended;
3. three letters of recommendation from persons who can describe abilities, interest, and motivation as a student;
4. a proposed course of study.

Particular courses are not specified for the degree, though a research methods course is required; the advisory committee can assist in selecting appropriate courses. Up to nine graduate hours can be transferred from a regionally-accredited graduate program with consent of the advisory committee. The student chooses one of the two master's degree plans:

1. 30-hour plan, thesis, includes six-hours of research;
2. 32-hour plan, non-thesis. May include a culminating experience (e.g., internship, practicum, comprehensive exam, portfolio, or capstone project); may include a final report with no more than three hours of research

15.0 Graduate Certificate Programs

Graduate certificate programs offer students the opportunity for focused study of a body of knowledge at the graduate level, leading to the award of a transcripted academic credential that can be earned in a relatively short time. Graduate certificate programs can serve both as a steppingstone onto more advanced study leading to a master's or doctoral degree or as a stand alone educational achievement to assist an individual in their career. Many OSU graduate certificate programs are offered online or on the graduate-serving campuses (OSU-Stillwater, OSU-Tulsa and OSU-Center for Health Sciences in Tulsa). In addition, many graduate certificate programs allow students to enroll as either a certificate-seeking or a degree-seeking graduate student. Certificate-seeking students are not eligible for GTA or GRA positions or associated benefits but may be eligible for federal financial aid (https://go.okstate.edu/scholarships-financial-aid/). For the current graduate certificate offerings at OSU please see the Graduate College website for additional information.

15.1 Admission to a Graduate Certificate Program.

Any student admitted to the Graduate College may apply for admission to a graduate certificate program. Some certificate programs may have additional requirements, such as official scores on standardized tests, letters of recommendation, etc. Contact the appropriate graduate program for specifics.

15.2 Basic Requirements.

A graduate certificate requires completion of a minimum of 12 credit hours of coursework eligible for graduate credit. Specific certificate programs may have more stringent requirements.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

15.3 Transfer of Courses.

With the approval of the graduate program and the Graduate College, up to three hours of graduate-level credit with a grade of "B" or higher from another institution may be used toward certificate requirements. The GPA must be at least 3.0 on any transfer credit.

15.4 Academic Standing.

A grade-point average of "B" (3.00) is required on courses applicable to a graduate certificate. No grade lower than a "C" may be used as part of the minimum requirements for the certificate. Individual certificate programs may have more stringent requirements.

15.5 Plan of Study and Certificate Completion Procedures.

Upon application to a graduate certificate program, a student should complete a Plan of Study, listing the courses intended to be used in earning the certificate. This plan must be approved by the graduate program and the Graduate College prior to recording the credential on the student's academic record. During the semester of anticipated certificate completion, the student must complete a Graduate Application. This action will cause the graduate certificate to be recorded on the official transcript and a certificate will be printed, provided all requirements have been met.

16.0 Graduate Minors

Graduate minors offer students the opportunity to pursue coursework outside, or ancillary to, the requirements for the degree earned. Minors may not be earned independently of a degree granted by OSU.

16.1 Basic Requirements.

A graduate minor must include between nine and eighteen hours, inclusive, of coursework eligible for graduate credit.

Transfer of courses: No more than one-third of the credit for the minor may be earned through transfer credit of courses taken at other institutions, with the approval of the coordinator of the minor and the dean of the Graduate College. Transfer credit will only be considered if it was earned when the student was post-baccalaureate (i.e., after earning a bachelor's degree) at another accredited institution. All courses used as transfer credit must have a grade of "B" or better. Grades earned in courses transferred to Oklahoma State University will not be used in calculating the cumulative GPA.

16.2 Academic Standing.

A grade-point average of "B" (3.00) is required on courses applicable to a graduate minor. No grade lower than a "C" may be used as part of the minimum requirements for the minor. Individual minors may have more stringent requirements.

16.3 Plan of Study and Minor Completion Procedures.

Graduate students can declare a minor by entering it in the appropriate section of an original or revised Plan of Study submitted to the Graduate College prior to conferral of the degree. The pursuit of graduate minors is not denoted on the academic transcript while in progress. Graduate students can file for minor completion in the semester that the required courses for that minor will be finished. At that time, the graduate student should ask the coordinator for that minor area to submit a memorandum to the Graduate College certifying the completion of the minor requirements and listing the courses required for the minor. A notation of the minor will be added to the student's transcript with the conferral of a degree. The courses required for a graduate minor may be included on a Plan of Study for any graduate degree or they may be in addition to the degree requirements, depending on the overlap between the minor and the degree Plan of Study. However, the graduate minor must be earned in an academic field other than the student's graduate program or degree option (for example, a graduate student who is majoring in economics could not receive a graduate minor in economics).

16.4 Time Limits.

Requirements for the graduate minor must be completed at the time of conferral of the primary degree. All graduate courses used to complete the minor must have been taken within ten years prior to the date of completion of the graduate minor requirements.

17.0 Master's Degree Programs

17.1 Abbreviations.

MA - Master of Arts
MAG - Master of Agriculture
MAT - Master of Athletic Training
MBA - Master of Business Administration
MEN - Master of Engineering
MFA - Master of Fine Arts
MM - Master of Music
MPH - Master of Public Health
MS - Master of Science

17.2 Current Degree Inventory.

For the current listing of master's degrees offered at OSU see the Graduate College website: https://gradcollege.okstate.edu/programs/listing-by-degree.html#Masters.

17.3 Basic Requirements.

The master's degree may be earned by one of four plans as follows:

Plan I—thesis. Minimum 30 credit hours. Six hours of research required with a grade of "SR."

Plan II—non-thesis, creative component. Minimum of 30 credit hours. May include no more than three hours of research or creative component with a grade of "SR."

Plan III—non-thesis, (formal) report. Minimum of 30 credit hours. Requires one to three hours of research with a grade of "SR" or a departmental course.

Plan IV—non-thesis, coursework only. Minimum of 30 credit hours.

The numbers of credits specified for each plan are minimums set by the Graduate College. Graduate program requirements may exceed these minimums.

The graduate program, with the approval of the dean of the Graduate College, decides which alternatives are open to the students.

A student who holds a DVM, MD, DO, DDS, LLB, JD, or equivalent professional degree may apply up to nine hours credit toward a master's degree, subject to the recommendation of the advisory committee and the approval of the dean of the Graduate College. However, a student applying this credit may not transfer additional hours to OSU from other graduate programs.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

17.4 Residency Requirements.

Candidates for a master's degree must complete a minimum of 21 semester credit hours from OSU. Nine semester credit hours may be graduate courses taken at another accredited college or university with appropriate approvals.

17.5 Advisory Committee.

Upon recommendation of the graduate program and approval of the dean of the Graduate College, an advisory committee of no fewer than three voting members will be appointed. The advisory committee must include a minimum of three members of the Graduate Faculty. The chair of the committee need not necessarily serve as the student's research advisor, but must hold an OSU Graduate Faculty appointment and have familiarity with the academic requirements of the degree sought. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/resources/best-practices.html.

17.6 Level of Courses Applied to Graduate Degree.

Graduate students must complete all semester credit hours at the graduate level through OSU as presented on the Plan of Study to meet requirements for the master's degree.

17.7 Plan of Study.

The Plan of Study for the degree must be submitted online to the Graduate College prior to completion of the second semester of enrollment for a master's program. The student should develop the Plan of Study with the advisory committee using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission request requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College. The Plan of Study is subject to modification. All changes must have the approval of the advisory committee and the student's graduate coordinator, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the eighth week of the semester in which the degree is to be conferred. See the Graduate College Calendar.

Graduate credit, up to a maximum of nine hours, used to obtain one master's degree may, with the approval of the advisory committee, be counted toward completion of another master's degree.

17.8 Language Requirements.

A candidate for a master's degree may be required to demonstrate a reading knowledge of a modern foreign language. Any such requirement of the graduate program included on the Plan of Study and is noted at the time the preliminary plan is approved by the student's advisor.

A foreign language requirement for a master's degree may be met either by examination or by college credit, according to individual graduate program requirements.

17.9 Written Examinations.

Some graduate programs require a written examination covering the major and/or minor fields. It is usually taken before the thesis or report has been completed. Arrangements for taking the examination should be made with the graduate program at least three weeks in advance. The written examination must be passed before a final examination is scheduled, if a thesis or report option is used.

A student who fails all or part of the written examination should consult the chair of the examination committee to find out what must be done before taking another examination.

17.10 Thesis.

Any student working on a thesis should obtain a copy of the Graduate College Thesis/Dissertation Handbook available from the Graduate College at https://gradcollege.okstate.edu/resources/current-student-resources.html. A thesis must conform to the format specifications set forth in this document. The style of the document is to be determined by the advisory committee and should be reflective of publications in the student's discipline. Any graduate student writing a thesis must attend a Thesis/Dissertation format workshop prior to submission of their approved thesis. The dates for the workshops are on the Graduate Calendar and a webinar version is available on the Graduate College website.

It is strongly recommended that a graduate student submit complete copies of their thesis to committee members at least two weeks prior to the defense date, that the defense presentation be publicized, and that the thesis defense occur on a date during the normal academic semesters and sessions. Graduate programs may have additional or more restrictive requirements for thesis defenses.

Immediately after the defense, the Thesis Oral Defense Results form, initiated by the student, must be submitted online through GC Round Up (http://planofstudy.okstate.edu). In addition, the student must electronically submit the Thesis Document Approval form (see template on the Graduate College website) with committee signatures to the Graduate College via grad-academici@okstate.edu. The thesis must have the necessary approval signatures before online submission. Directions to submit the thesis through the OSU website are given to the student after they submit the Thesis Document Approval form. Both the Thesis Document Approval form and the electronic submission of the thesis must occur no later than the final submission deadline date stated on the Graduate College Calendar.

17.11 Report.

The student must submit the Formal Report Approval form electronically to the Graduate College via grad-academici@okstate.edu.

17.12 Final Examination.

If the thesis or report option is used, the student should arrange with the graduate program for the final examination and to distribute a copy as described in the preceding section. The final examination may be oral or written or both.

The final examination is primarily a defense of the thesis or report. If the defense is judged inadequate, a decision on whether to permit re-examination will be made by the advisory committee. Another examination cannot be given for at least two months after a failure, and a graduate program may limit the number of times that the examination may be repeated.

Following satisfactory completion of the final examination, the candidate will make changes to the thesis or report as required by the committee and submit it in final form as described in the preceding sections.

Please see the Graduate College's Best Practices: Advisory Committees and Defenses document for additional guidance (https://gradcollege.okstate.edu/resources/best-practices.html).

18.0 Specialist in Education (EdS) Degree Program

The Specialist in Education degree is conferred as an appropriate recognition of achievement as evidenced by the following:

1. Successful professional performance in the area of the student's specialization.
2. Satisfactory completion of a program of graduate study of approximately two academic years.
3. Satisfactory performance on examinations designed to reveal the student's understanding of the field of specialization and its relation to other areas; and
4. Preparation of a thesis dealing with some aspect of concern to the student's profession and its defense before a committee of the Graduate Faculty.

18.1 Temporary Advisor.

At the beginning of a student's Specialist in Education program, the school head may designate a member of the Graduate Faculty to serve as temporary advisor to the student. The temporary advisor will guide the student in the selection of courses for the first semester.

18.2 Advisory Committee.

Upon recommendation of the school head or the graduate committee of the school and approval of the dean of the Graduate College, an advisory committee of no fewer than three voting members will be appointed. At least one member of the advisory committee must be designated as the Graduate College Representative and be a Full member of the OSU Graduate Faculty from a school or department outside the student's department. This committee:

1. conducts the preliminary examination and conference,
2. approves the proposed Plan of Study,
3. supervises the student's progress in the program,
4. supervises the research, and
5. arranges for and conducts the final examination.

The chair of the committee need not necessarily serve as the student's research advisor but must hold an OSU Graduate Faculty appointment and have familiarity with the academic requirements of the degree sought. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/resources/best-practices.html.

18.3 Plan of Study.

The original Plan of Study for the degree must be submitted to the Graduate College prior to the end of the second semester (excluding summer sessions) of enrollment for a specialist in education program. The student should develop the Plan of Study with the advisory committee using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College.

The Plan of Study is subject to modification. All changes must have the approval of the advisory committee and the student's graduate coordinator, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the eighth week of the semester in which the degree is to be conferred. See the Graduate College Calendar.

18.4 Credit Hour Requirements.

A minimum of 60 credit hours beyond the bachelor's degree or 33 credit hours beyond the master's degree are required for the Specialist in Education degree. This may include as many as 10 credit hours for the practicum study and accompanying report.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

18.5 Character of Work.

The satisfactory completion of coursework (see "General Regulations") is only one requirement for receiving the degree. The student must also:

1. pass a qualifying examination,
2. conduct an appropriate study of education,
3. show qualities of professional leadership, and
4. pass a final examination.

18.6 Residence Requirements.

While the Graduate College does not have a specific residence requirement that applies to all graduate programs, programs may require a period of time in residence for students enrolled in departmental graduate programs. Programs must inform students of any residence requirements upon their admission to departmental graduate programs. No more than nine hours may be transferred from another university.

18.7 Qualifying Examination.

A qualifying examination is required of all candidates for the Specialist in Education degree. The nature of this exam is determined within each specialization.

18.8 Credit Toward an EdD or a PhD.

A student holding an EdS may have the credit hour requirements for a PhD or EdD reduced to 30 hours subject to recommendation by the advisory committee and approval of the dean of the Graduate College.

19.0 Professional Doctorate (DBA, DFS, DHA) Degrees

Professional doctoral degrees prepare students for advanced professional knowledge with a practice perspective to learning, and variable levels of scholarly work. Frequently, professional doctoral degrees will contain training and advanced knowledge that is required by a relevant licensing board and professional organization. The professional doctoral degree requirements are components that provide examination and capstone experiences consistent with the profession's standards and the Graduate College's expectations for professional doctoral programs.

The following professional doctoral degrees are offered at Oklahoma State University:

Doctor of Business Administration, D.B.A., for degree requirements see the Spears School of Business

Doctor of Forensic Sciences, D.F.S., for degree requirements see the School of Forensic Sciences, Center for Health Sciences

Doctor of Health Care Administration, D.H.A., for degree requirements see the School of Health Care Administration, Center for Health Sciences

19.1. Basic Requirements

Professional doctoral degrees requires a minimum of 60 semester credit hours beyond the bachelors degree. Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

19.2. Plan of Study

The student should develop the Plan of Study with the advisory committee using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College.

The original Plan of Study must be submitted to the Graduate College prior to the end of the third semester (excluding summer sessions) of enrollment in the doctoral program.

The Plan must include all the acceptable graduate work that has been completed and all that will be taken for the degree. All courses on the plan should be taken at the 5000-6000 level. Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements.

The Plan of Study is subject to modification. All changes must have the approval of the advisory committee and the student's graduate coordinator, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the eighth week of the semester in which the degree is to be conferred. See the Graduate College Calendar.

19.3. Character of Work

The satisfactory completion of coursework (see "General Regulations") is only one requirement for receiving the degree. The student must also comply with any other requirements of the major department.

19.4. Residence Requirements

A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residency requirement that applies to all programs, some may require a period of time in residence for students. Programs must inform students of any residency requirements upon their admission to the graduate program.

20.0 Doctor of Education (EdD) Degree Programs

The degree of Doctor of Education is a professional degree conferred in recognition of outstanding ability as an educator in some special field or fields as shown by:

1. satisfactory completion of a program of study;
2. passing examinations showing an understanding of the field of specialization and its relation to allied subjects;
3. the preparation of a dissertation demonstrating ability to approach problems with a high degree of originality and independence; and
4. passing an examination covering the dissertation and related fields.

20.1 Basic Requirements.

The Doctor of Education degree requires a minimum of 90 semester credit hours beyond the bachelor's degree, or a minimum of 60 semester credit hours beyond the master's degree in a related discipline. The Plan of Study must include ten hours, with a grade of "SR," for the doctoral dissertation. Students may use 90 hours beyond the bachelor's degree as a degree total only if admitted directly into the doctoral program from the bachelor's degree.

A student who holds a DVM, MD, DO, DDS, LLB, JD, or equivalent professional degree may also have the minimum credit hour requirement reduced to 60 hours, subject to the recommendation of their advisory committee and the approval of the dean of the Graduate College.
A student may receive only one 30-hour credit reduction in the EdD requirement regardless of the number of master's or professional degrees that he or she holds.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

20.2 Temporary Advisor.

At the beginning of a student's doctoral program, the school head will designate a member of the Graduate Faculty to serve as temporary advisor to the student. The temporary advisor will guide the student in the selection of courses for the first semester.

20.3 Advisory Committee.

Upon recommendation of the head of the graduate program and approval of the graduate dean, an advisory committee of no fewer than four voting members will be appointed. The duties of the advisory committee consist of:

1. advising the student,
2. assisting the student in preparing a Plan of Study,
3. assisting in planning and conducting the research,
4. supervising the writing of the dissertation, and
5. conducting the dissertation defense.

The chair of the committee need not necessarily serve as the student's research advisor but must hold an OSU Graduate Faculty appointment with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. At least one member of the advisory committee must be designated as the Graduate College Representative and be a Full member of the OSU Graduate Faculty from a school or department outside the student's department. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/resources/best-practices.html.

The student should consult the members of the advisory committee frequently and keep them informed on the progress of their work.

20.4 Preliminary Conference.

As soon as the student is notified that an advisory committee has been appointed, the student should arrange with the chair for a conference with the committee. During the conference, the preparation and qualifications of the student for graduate work will be discussed and appropriate plans made for future study.

20.5 Plan of Study.

The student should develop the Plan of Study with the advisory committee using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission requires approval by

the advisory committee and the student's graduate program with final approval by the Graduate College.

Because the acceptance of work that the student desires to use toward the degree rests with the advisory committee, it is important to plan a complete program and have it approved by the dean of the Graduate College as soon as possible.

The original Plan of Study must be submitted to the Graduate College prior to the end of the third semester (excluding summer sessions) of enrollment in the doctoral program.

The Plan must include all the acceptable graduate work that has been completed and all that will be taken for the degree. The plan should include:

1. all courses taken at the 5000-6000 level,
2. a minimum of 60 hours beyond the master's degree or 30 hours beyond the EdS, and
3. at least 10 hours of dissertation credit. Courses from a master's degree or EdS are not listed on the doctoral Plan of Study.

Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements.

The Plan of Study is subject to modification. All changes must have the approval of the advisory committee and the student's graduate coordinator, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the eighth week of the semester in which the degree is to be conferred. See the Graduate College Calendar.

20.6 Character of Work.

The satisfactory completion of coursework (see "General Regulations") is only one requirement for receiving the degree. The student must also:

1. pass a qualifying examination,
2. prepare an acceptable dissertation,
3. demonstrate the ability to do independent study,
4. pass a defense of dissertation, and
5. comply with any other requirements of the major department.

20.7 Residence Requirements.

A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residency requirement that applies to all graduate programs, some may require a period of time in residence for students. Programs must inform students of any residency requirements upon their admission to graduate programs.

20.8 Language and Research Instruments Proficiency.

All candidates will be expected to have a command of those instruments necessary in the study of educational problems. The doctoral advisory committee of each candidate may require evidence of proficiency in one or more foreign languages, educational research, statistics and/or computer usage.

20.9 Admission to Doctoral Candidacy.

Admission to doctoral candidacy marks the transition into the research phase of a doctoral degree and indicates agreement that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. Consideration for candidacy requires the presentation of a written research proposal for doctoral research to the doctoral advisory committee, who will assess the proposal and offer the student pertinent counsel, advice and feedback. The approval of the research proposal by the advisory committee is the basic requirement for admission to doctoral candidacy; individual programs will normally impose additional requirements, such as the successful completion of oral and/or written comprehensive or qualifying examinations. These additional requirements may occur in conjunction with the presentation of the research proposal, or they may occur at different times within the course of doctoral study. Admission to doctoral candidacy is conferred with the approval of the dean of the Graduate College, on behalf of the Graduate Council, acting upon the recommendation of program faculty. Admission to candidacy should occur fairly early in the graduate degree program. When the student has completed all requirements for Candidacy, they must initiate the Admission to Doctoral Candidacy form through GC Round Up (http://planofstudy.okstate.edu) for committee members' and the Graduate College's approval.

20.10 Dissertation Hours Taken as a Doctoral Candidate.

Admission to candidacy must occur at least six months prior to the date of the final dissertation defense. Since admission to candidacy may occur at various times related to the academic calendar, the student will need to be admitted to candidacy early in the fall semester to be eligible to schedule their final dissertation defense and graduate in the spring; early in the spring semester for summer graduation; and early in the summer session for fall graduation. (See the Graduate College Calendar for term-specific dates.) If a student is admitted to candidacy prior to the first day of a given term, all dissertation hours taken that term and following may be included in the hours of dissertation research required as a doctoral candidate.

20.11 Dissertation.

A dissertation is required of each candidate for the EdD degree. The dissertation has three principal functions:

1. training in research,
2. promoting professional growth, and
3. contributing to professional knowledge in education. Not every dissertation will be expected to serve these three functions in the same way or to the same extent.

The format specifications, procedures and regulations for the dissertation are the same as for the PhD. The EdD candidate should refer to the "Doctor of Philosophy" section in the Graduate College chapter of the Catalog on dissertations and submission procedures. The style of the document is to be determined by the advisory committee and should be reflective of publications in the student's discipline. Any graduate student writing a dissertation must attend a Thesis/Dissertation format workshop prior to submission of their approved dissertation. The dates for the workshops are on the Graduate Calendar and a webinar version is available on the Graduate College website.

21.0 Doctor of Philosophy (PhD) Degree Programs

The Doctor of Philosophy (PhD) degree is granted in recognition of high achievement in scholarship and independent investigation. The student must prove his or her acceptability by:

1. successfully completing a series of courses comprising a Plan of Study;
2. passing various examinations demonstrating academic competence;

3. carrying out a research program under supervision and preparing an acceptable dissertation; and
4. demonstrating initiative, creative intelligence, and ability to plan and carry out research in his or her chosen field.

21.1 Current Degree Inventory.

For the current listing of doctoral programs offered at OSU see the Graduate College website: https://gradcollege.okstate.edu/programs/listing-by-degree.html#Doctoral.

21.2 Basic Requirements.

The Doctor of Philosophy degree requires the number of credit hours as specified by the degree program with a minimum of 60 credit hours beyond the bachelor's degree. These hours must include a minimum of 15 dissertation hours (6000) with a grade of "SR." The maximum number of dissertation hours (6000 with a grade of "SR") permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program.

Also, see **Section 11.2** for the number of times a course can be used in multiple degree Plans of Study.

21.3 Temporary Advisor.

At the beginning of a student's doctoral program, the graduate program will designate a member of the Graduate Faculty to serve as temporary advisor to the student. The temporary advisor will assist the student in the early selection of courses. Often, it is the graduate coordinator who serves as the temporary advisor.

21.4 Advisory Committee.

Upon recommendation of the graduate program and approval of the dean of the Graduate College, an advisory committee of not fewer than four voting members will be appointed. The duties of the advisory committee consist of:

1. advising the student,
2. assisting the student in preparing a Plan of Study,
3. assisting in planning and conducting the research,
4. supervising the writing of the dissertation, and
5. conducting the dissertation defense.

The chair of the committee need not necessarily serve as the student's research advisor, but must hold an OSU Graduate Faculty appointment with doctoral chairing privileges, and have familiarity with the academic requirements of the degree sought. At least one member of the advisory committee must be designated as the Graduate College Representative and be a Full member of the OSU Graduate Faculty from a school or department outside the student's department. To view the roles and responsibilities associated with members of advisory committees, go to https://gradcollege.okstate.edu/resources/best-practices.html.

The student should consult the members of the advisory committee frequently keep them informed on the progress of their work.

21.5 Preliminary Conference.

As soon as the student is notified that an advisory committee has been approved, the student should arrange with the chairperson for a conference with the committee. During the conference, the preparation and qualifications of the student for graduate work will be discussed and appropriate plans made for future study.

21.6 Plan of Study.

The student should develop the Plan of Study with the advisory committee using the online Plan of Study application (http://planofstudy.okstate.edu). The online submission requires approval by the advisory committee and the student's graduate program with final approval by the Graduate College.

The original Plan of Study must be submitted to the Graduate College prior to the end of the third semester (excluding summer sessions) of enrollment in the doctoral program. The plan must include all the acceptable graduate work that has been completed and all that will be taken for the doctoral degree.

The Plan of Study must include all the acceptable graduate work that has been completed and all that will be taken for the doctoral degree. The Plan of Study should include:

1. all courses taken at the 5000-6000 level,
2. a minimum of 60 hours, and
3. a minimum of 15 (maximum of 45) dissertation hours (6000) with a grade of "SR" for the 60 hour doctorate or a minimum of 15 (maximum of 60) dissertation hours (6000) for the 90 hour doctorate.

Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements.

The Plan of Study is subject to modification. All changes must have the approval of the advisory committee and the student's graduate coordinator, and a final Plan of Study incorporating all changes should be submitted to the Graduate College by the eighth week of the semester in which the degree is to be conferred. See the Graduate College Calendar..

21.7 Character of Work.

The satisfactory completion of coursework (see "General Regulations") is only one requirement for earning the degree. The student must also:

1. pass a qualifying examination,
2. prepare an acceptable dissertation,
3. demonstrate the ability to do independent study,
4. pass a defense of dissertation, and
5. comply with any other requirements of the graduate program.

21.8 Residency Requirements.

A minimum of 30 credit hours must be taken at OSU. While the Graduate College does not have a specific residency requirement that applies to all programs, graduate programs may require a period of time in residence for students enrolled in departmental graduate programs. Programs must inform students of any residence requirements upon their admission to their graduate programs.

21.9 Language Requirement.

Foreign language or other proficiency requirements may be specified to meet the need for specific skills and areas of knowledge that facilitate research and contribute to wider understanding. Specific requirements are determined by graduate programs. In many fields, a reading knowledge of one or two modern foreign languages is an important part of scholarship and necessary for research. In other fields, proficiency in special and related disciplines may be required that will contribute to the needs of the individual program.

21.10 Admission to Doctoral Candidacy.

Admission to doctoral candidacy marks the transition into the research phase of a doctoral degree and indicates agreement that the student has demonstrated the ability to do acceptable, doctoral-level graduate work and that satisfactory progress has been made toward a degree. Consideration for candidacy requires the presentation of a written research proposal for doctoral research to the doctoral advisory committee, who will assess the proposal and offer the student pertinent counsel, advice and feedback. The approval of the research proposal by the advisory committee is the basic requirement for admission to doctoral candidacy; individual programs will normally impose additional requirements, such as the successful completion of oral and/or written comprehensive or qualifying examinations. These additional requirements may occur in conjunction with the presentation of the research proposal, or they may occur at different times within the course of doctoral study. Admission to doctoral candidacy is conferred with the approval of the dean of the Graduate College, on behalf of the Graduate Council, acting upon the recommendation of program faculty. When the student has completed all requirements for Candidacy, they must initiate the Admission to Doctoral Candidacy form through GC Round Up (http://planofstudy.okstate.edu) for committee members' and the Graduate College's approval.

21.11 Dissertation Hours Taken as a Doctoral Candidate.

Admission to candidacy must occur at least six months prior to the date of the final dissertation defense.

Since admission to candidacy may occur at various times related to the academic calendar, the student will need to be admitted to candidacy early in the fall semester to be eligible to schedule their final dissertation defense and graduate in the spring; early in the spring semester for summer graduation; and early in the summer session for fall graduation. See the Graduate College Calendar for term-specific dates.

21.12 Dissertation.

A dissertation (doctoral thesis) is required of each doctoral candidate. The subject of the dissertation must be approved by the advisory committee and the dissertation is prepared under the direction of members of the committee or a special dissertation committee approved by the advisory committee chair.

The dissertation must follow specifications in the Graduate College Thesis/ Dissertation Guidelines, available at http://gradcollege.okstate.edu (https://gradcollege.okstate.edu/resources/student-resources.html). The style of the document is to be determined by the advisory committee and should be reflective of publications in the student's discipline. Any graduate student writing a dissertation must attend a Thesis/Dissertation format workshop prior to submission of their approved dissertation. The dates for the workshops are on the Graduate Calendar and a webinar version is available on the Graduate College website.

It is strongly recommended that a graduate student submit complete copies of the dissertation to the advisory committee members at least two weeks prior to the defense date, that the defense presentation be publicized, and that the dissertation defense occur on a date during the normal academic semesters and sessions. Graduate programs may have additional or more restrictive requirements for dissertation defenses.

Immediately after the defense, the Dissertation Oral Defense Results form, initiated by the student, must be submitted online through GC Round Up (http://planofstudy.okstate.edu/). In addition, the student must electronically submit the Dissertation Document Approval form (see template on the Graduate College website) with committee signatures to the Graduate College via grad-academici@okstate.edu. The dissertation must have the necessary approval signatures before online submission. Directions to submit the dissertation through the OSU website are given to the student after they submit the Dissertation Document Approval form. Both the Dissertation Document Approval form and the electronic submission of the dissertation must occur no later than the final submission deadline date stated on the Graduate College Calendar.

21.13 Final Examination.

The student should arrange with the graduate program for the final examination and to distribute a copy of the dissertation as described in the preceding section. The final examination is primarily a defense of the dissertation. If the defense is judged inadequate, a decision on whether to permit re-examination will be made by the advisory committee. Another examination cannot be given for at least two months after a failure, and a graduate program may limit the number of times that the examination may be repeated. If the advisory committee decides against re-examination, the committee's decision is final. The outcome of the dissertation defense falls under the "professional and scholarly assessment made by faculty and advisory committees" and is not appealable.

Following satisfactory completion of the final examination, the candidate will make changes in the dissertation as required by the committee and submit it in final form as described in preceding section.

Please see the Graduate College's Best Practices: Advisory Committees and Defenses document for additional guidance.

Academic Calendar
Graduate College Academic Calendar

Refer also to the University Academic Calendar (p. 91).

2025-2026

	Fall	Spring	Summer
Class work begins	Aug 18	Jan 12	May 18
Admission to doctoral candidacy for summer graduates due in Graduate College		Jan 30	
Admission to doctoral candidacy for fall graduates due in Graduate College			Jun 5
Thesis/ Dissertation Graduation Review: Attend in-person review or watch the online tutorial	Oct 10	Mar 6	Jun 5

Last day to submit a revised plan of study (if needed) to Graduate College	Oct 17	Mar 13	Jun 19
Last day to file a Graduation Application* (formerly diploma application)	Nov 3	Apr 1	Jun 29
Admission to doctoral candidacy for spring graduates due in Graduate College	Nov 7		
Last day to submit results of Thesis/ Dissertation Oral Defense form to Graduate College to meet semester graduation deadlines	Nov 14	Apr 10	Jul 17
Last day to submit Thesis/ Dissertation Document Approval form to Graduate College to meet semester graduation deadlines	Nov 20	Apr 23	Jul 23
Last day to complete online submission of electronic dissertation or thesis to meet semester graduation deadlines	Nov 24	Apr 27	Jul 27
Term ends; Formal Reports, Creative Components due	Dec 12	May 8	Jul 31
Graduate Commencement	Dec 12	May 8	

*
Last day to file for your name to appear in Fall and Spring/Summer Commencement Book. Summer deadline is for graduation clearance only.

Graduate Programs

Doctoral Degree Programs

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- Biosystems Engineering, PhD (p. 2962)
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- Business Administration: Accounting, PhD (p. 2964)
- Business Administration: Entrepreneurship, PhD (p. 2965)
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- Sociology, PhD (p. 3047)
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- Special Education, GCRT (p. 3127)
- Sport Communication, GCRT (p. 3128)
- Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT (p. 3129)
- Statistics, MS (p. 3308)
- Statistics, PhD (p. 3049)
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- Supply Chain and Logistics, GCRT (p. 3131)
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Faculty

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- Animal Science, PhD (p. 2957)
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- Biochemistry and Molecular Biology, PhD (p. 2959)
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- Geography, PhD (p. 3007)
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- Health and Human Performance, PhD (p. 3009)
- Health Care Administration, DHCA (p. 3010)
- Health, Leisure and Human Performance: Health and Human Performance, PhD (p. 3011)
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- History, PhD (p. 3014)
- Human Development and Family Science, PhD (p. 3015)
- Human Sciences: Design and Merchandising, PhD (p. 3016)
- Human Sciences: Human Development and Family Science, PhD (p. 3017)
- Industrial Engineering and Management, PhD (p. 3018)
- Integrative Biology, PhD (p. 3019)
- Language, Literacy, and Culture Education, EdS (p. 3020)
- Learning, Design and Technology, EdD (p. 3021)
- Learning, Design and Technology, PhD (p. 3022)
- Materials Science and Engineering, PhD (p. 3023)
- Mathematics, PhD (p. 3025)
- Mechanical and Aerospace Engineering, PhD (p. 3026)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD (p. 3027)
- Microbiology, Cell and Molecular Biology, PhD (p. 3028)
- Natural Resource Ecology and Management, PhD (p. 3029)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD (p. 3030)
- Natural Resource Ecology and Management: Forest Resources, PhD (p. 3031)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD (p. 3032)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD (p. 3033)
- Nutritional Sciences, PhD (p. 3034)
- Petroleum Engineering, PhD (p. 3036)
- Photonics, PhD (p. 3037)
- Physics, PhD (p. 3039)
- Plant Biology, PhD (p. 3040)
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- Psychology: Clinical, PhD (p. 3042)
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- School Administration, EdD (p. 3044)
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- School Psychology, PhD (p. 3046)
- Sociology, PhD (p. 3047)
- Soil Science, PhD (p. 3048)
- Statistics, PhD (p. 3049)

Agricultural Economics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Courses		
ECON 6023	Microeconomic Theory II	3
ECON 6043	Macroeconomic Theory II	3
AGEC 6213	Advanced Econometrics	3
STAT 5253	Mathematical Statistics I	3
STAT 5263	Mathematical Statistics II	3
AGEC 6403	Advanced Production Economics	3
AGEC 6303	Advanced Agricultural Marketing [1]	3
AGEC 5703	American Agricultural Policy	3
AGEC 6102	Teaching Practicum in Agricultural Economics	2
Hours Subtotal		**26**
Electives		
Select at least 10 hours of electives: [2]		10
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5321	Agricultural Marketing and Economic Development	
AGEC 5331	Agricultural Marketing: Advanced Concepts	
AGEC 5403	Production Economics	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 6103	Advanced Applications of Mathematical Programming	
ECON 6623	Economic Development I	
ECON 6643	Economic Development II	
Hours Subtotal		**10**
Thesis		
Total thesis hours based on advice of student's advisory committee. [2]		24
Hours Subtotal		**24**
Total Hours		**60**

1

Prerequisites of AGEC 5203 or AGEC 5311, 5321, and 5331.

2

Total number of hours for thesis must be approved by student's advisory committee and will need to reach a total of 34 hours combined with electives.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Agricultural Education, Communications, and Leadership, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
AGCM 5203	Theory and Practice in Agricultural Communications	3
AGED 5823	Advanced Methods of Teaching Agriculture	3
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	3
AGLE 5303	Foundations of Leadership Theory	3
AECL 5863	Methods of Technological Change	3
AECL 6223	Program Evaluation in Agriculture and Extension	3
Hours Subtotal		**19**
Statistics and Research Courses		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Select 9 hours from the following:		9
REMS 5953	Statistical Methods in Education (or equivalent)	
STAT 5013	Statistics for Experimenters I	
REMS 6003	Analyses of Variance (or equivalent)	
STAT 5023	Statistics for Experimenters II	
REMS 6013	Multiple Regression Analysis in Behavioral Studies (or equivalent)	
Select one qualitative research methods course.		3
Specialization		
Select 11 hours.		11
Hours Subtotal		**26**
Dissertation Hours		
AECL 6000	Doctoral Dissertation in Agricultural Education, Communications and Leadership	15
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Animal Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 64 (Beyond the Bachelors Degree)

Code	Title	Hours
Required Courses [1]		
STAT 5013	Statistics for Experimenters I	3
STAT 5023	Statistics for Experimenters II	3
STAT - 3 additional hours		3
ANSI 5110	Seminar	2
or ANSI 6110	Seminar	
Hours Subtotal		**11**
Twenty (20) hours from:		20
ANSI 6000	Doctoral Research and Dissertation	
Hours Subtotal		**20**
Electives		
Select 33 hours of graduate courses (no more than 6 hours of ANSI 5010 and FDSC 5120		33
Hours Subtotal		**33**
Total Hours		**64**

1

Combined Required Courses, Electives and Other Requirements hours must total 64 hours.

Animal Science Requirements

- At least 75 percent of total credit hours must be 5000/6000 level courses.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Applied Educational Studies: Aviation and Space Eduation, EdD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 61

Code	Title	Hours
Required Courses		
AVED 5553	Aerospace Proposal and Procurement	3
AVED 5573	Aerospace Defense Acquisition	3
AVED 5593	Influencing Public Policy in the Aerospace Industry	3
AVED 6000	Doctoral Thesis	10
AVED 6103	Doctoral Seminar in Aerospace Education	3
AVED 6303	The Application of Qualitative Methods in Aviation Research	3
AVED 6313	Administration of Aviation Institutions	3
AVED 6413	Development of Air and Space Flight	3
AVED 6553	Foundations of Airline Executive Leadership	3
AVED 6613	Aviation Executive Development	3
AVED 6773	Applied Aviation and Space Research	3
Hours Subtotal		**40**
Electives		
Select 21 hours of the following:		21
AVED 5453	Advanced Aviation Security	
AVED 5563	Aerospace Leadership and Management	
AVED 5773	Historical Significance of Aviation	
AVED 5823	Space Science	
AVED 5883	Aviation Economics	
AVED 5893	Aerospace Executive Decision Making	
AVED 5963	Airport Operations	
AVED 5973	Aerospace Law	
AVED 5993	Ethics in Aviation	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 6113	Theoretical Foundations of Inquiry	
Hours Subtotal		**21**
Total Hours		**61**

Graduate College Doctor of Education (EdD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Education (EdD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Biochemistry and Molecular Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Core Courses		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	2
BIOC 5112	Articulation of Research Logic	2
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium [1]	1
BIOC 5753	Biochemical Principles	3
BIOC 5753	Biochemical Principles	3
BIOC 5853	Molecular and Integrative Metabolism	3
BIOC 5930	Advanced Biochemical Techniques	3
BIOC 6110	Seminar [2]	2
Three hours from:		3
BIOC 6740	Physical Biochemistry	
Plus 4 advanced (6000-level BIOC courses)		12
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6753	Epigenetics	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6793	Plant Biochemistry	
Hours Subtotal		**34**
Electives		
Select 41 hours from the following:		41
BIOC 4723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 6820	Selected Topics in Biochemistry (15 Hours Maximum)	
Hours Subtotal		**41**
Required Research		
BIOC 6000	Research	15
Hours Subtotal		**15**
Total Hours		**90**

1

Course to be taken 1 time each year prior to year of graduation.

2

Course to be taken 2 times at one credit each.

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Combined 45 hours of required core courses, other core courses, and electives.		45
Required Core Courses		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium [1]	
Other Core Courses Listed Below as Required by the Student's Advisor and Graduate Thesis Advisory Committee:		
BIOC 5723	Introduction to Bioinformatics	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6110	Seminar	
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6793	Plant Biochemistry	
Electives		
Select 15 hours minimum from the following:		
BIOC 4723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 6820	Selected Topics in Biochemistry	
Hours Subtotal		**45**
Required Research		
BIOC 6000	Research	15
Hours Subtotal		**15**
Total Hours		**60**

1

Course to be taken 1 time each year prior to year of graduation.

Other Biochemistry and Molecular Biology, PhD, Requirements

- Pass PhD Preliminary Examination.
- Pass PhD Candidacy Examination: Present and pass the defense of a written research proposal.
- The student's Graduate Committee must approve the written thesis, and an oral defense on the content of the thesis must be passed

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Biomedical Sciences, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Degree Core		
Required Courses		
Thirty hours from:		30
BIOM 6000	Research and Dissertation	
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		**34**
Optional Electives		
Select 26 hours from the following:		26
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human Structure	
BIOM 5133	Neuroanatomy	
BIOM 5144		
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5703		
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	
BIOM 6353	Molecular Virology	
BIOM 6363	Immunobiology of Infectious Disease	
BIOM 6413	Graduate General Pathology and Laboratory Medicine	
BIOM 6523	Cardiovascular Physiology and Pharmacology	
BIOM 6543	Environmental Toxins in the Brain	
BIOM 6583	Neuroinflammation	
BIOM 6613	Environmental Physiology	
BIOM 6643	Neurophysiology	
BIOM 6653	Graduate Seminar In Signal Transduction	
BIOM 6663	Neuroethology	
BIOM 6673	Genomics	
BIOM 6705	Advanced Gross Anatomy	
BIOM 6723	Field Techniques in Vertebrate Paleontology	
BIOM 6733	Human Microbiome in Health and Disease	
BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development	
BIOM 6752	Foundations in Medical Cell and Tissue Biology	
BIOM 6762	Foundations in Medical Biochemistry	
BIOM 6771	Foundations in Medical Pharmacology	
BIOM 6781	Foundations in Medical Immunology	
BIOM 6793	Foundations in Medical Microbiology	
BIOM 6800	Critical Readings in Biomedical Sciences	
BIOM 6810	Structure and Function of the Human Cardiovascular System	
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
BIOM 6830	Biomedical Perspectives on Human Hematology	
BIOM 6840	Structure and Function of the Human Musculoskeletal System	
BIOM 6843	Vertebrate Osteology	
BIOM 6850	Structure and Function of the Human Renal System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	
BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6810	Structure and Function of the Human Cardiovascular System	
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
BIOM 6830	Biomedical Perspectives on Human Hematology	
BIOM 6840	Structure and Function of the Human Musculoskeletal System	
BIOM 6850	Structure and Function of the Human Renal System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	

BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6952	Paleohistology Techniques	
BIOM 6962	Evolutionary Biomechanics	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
Hours Subtotal		**26**
Other Requirements		
Research Proposal		
Qualifying Exam		
Dissertation Defense		
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Biosystems Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
BAE 5501	Seminar	1
BAE 6101	Teaching Practicum in Biosystems Engineering	1
Advanced Math (if advanced math was not completed in Master's program)		3
Hours Subtotal		**5**
Specialization and Dissertation		
Combination of Dissertation and Specialization to total 55 hours.		55
Core Courses (By Specialty Area)		
Machine Systems		
BAE 5413	Advanced Data Acquisition and Control	
Environment and Natural Resources		
BAE 6313	Stochastic Methods in Hydrology [1]	
BAE 6333	Fluvial Hydraulics [2]	
BAE 6343	Ground Water Contaminant Transport [3]	
BAE 6520	Problems in Soil and Water Engineering [4]	
Bioprocessing and Biotechnology		
BAE 5213	Renewable Energy Engineering	
BAE 5283	Advanced Bioprocess Engineering	
BAE 5413	Advanced Data Acquisition and Control	
CHE 5123	Advanced Chemical Reaction Engineering	
CHE 5373	Process Simulation	
CHE 5743	Chemical Engineering Process Modeling	
STAT 5303	Experimental Designs	
Research and Additional Requirements		
BAE 6000	Doctoral Research and Dissertation	
Hours Subtotal		**55**
Total Hours		**60**

1

Prerequisites: BAE 4313 or CIVEN 5843 and STAT 4053.

2

Prerequisites: ENGSC 3233 or equivalent.

3

Prerequisites: AGRON 5583 or CIVEN 5913.

4

Prerequisites: CHEM 1515, BAE 4313 or equivalent.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration, DBA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Courses		
MGMT 6343	Contemporary Research in Management I	3
MGMT 6353	Research Design	3
BADM 6913	Mixed Methods in Management Research	3
BADM 6513	Org Science I: Micro Issues in Business	3
BADM 6523	Org Science II: Macro Issues in Business	3
MKTG 6100	Advanced Seminar in Marketing	3
EEE 6343	Entrepreneurship Processes	3
FIN 6660	Seminar in Finance	3
MSIS 6300	Contemporary Topics in MSIS Research	3
BADM 6713	Theory Building and Scientific Research in Business	3
BADM 6533	Creativity, Innovation and Leadership	3
Hours Subtotal		**33**
Electives		
Any doctoral level or equivalent course that aligns with a student's individual area of interest. Elective courses must be approved by an advisory board for a minimum of 9 hours.		9
Hours Subtotal		**9**
Thesis		
BADM 6723	Dissertation Design	3
15 hours from:		15
BADM 6000	Research and Thesis	
Hours Subtotal		**18**
Total Hours		**60**

Learn more about Graduate College 2025-2026 Doctor of Business Administration (DBA) (p. 2927) Degree Program Requirements. Check the Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Accounting, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Research Methods		
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
or AGEC 5403	Production Economics	
STAT 5023	Statistics for Experimenters II	3
ECON 6323	Mathematical Economics I	3
or AGEC 5103	Mathematical Economics	
STAT 5013	Statistics for Experimenters I	3
STAT 5543	Applied Regression Analysis	3
Hours Subtotal		**18**
Dissertation Hours		
ACCT 6000	Doctoral Research and Thesis	15
Hours Subtotal		**15**
Doctoral Seminars		
Students take 12 hours of ACCT-specific doctoral seminars.		12
Hours Subtotal		**12**
Guided Electives		
In consultation with coordinator, complete 15 hours of approved elective courses.		15
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Entrepreneurship, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
Statistics Sequence		
Select 42 hours, per Plan of Study		42
Dissertation		
Select 18 hours of Dissertation		18
Doctoral Seminars		
Requirements include department seminars in entrepreneurship and related disciplines, a minor area.		
Suggested courses:		
EEE 6343	Entrepreneurship Processes	
EEE 6200	Entrepreneurship Research Project	
EEE 6213	Entrepreneurship: Theory and History	
EEE 6263	Theoretical Foundations in Entrepreneurship	
EEE 6353	Advanced Research Methods in Entrepreneurship	
EEE 6363	Individual Theories in Entrepreneurship Research	
Guided Electives		
Hours in this section to be determined by plan of study.		
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Executive Research, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Research Methods		
MGMT 6343	Contemporary Research in Management I	3
MGMT 6353	Research Design	3
MGMT 6453	Advanced Multivariate Regression	3
MGMT 6553	Applied Multivariate and Structural Equation Modeling	3
Hours Subtotal		**12**
Dissertation		
BADM 6723	Dissertation Design	3
BADM 6000	Research and Thesis (Research and Thesis IV)	4
BADM 6000	Research and Thesis (Research and Thesis I)	4
BADM 6000	Research and Thesis (Research and Thesis II)	4
BADM 6000	Research and Thesis (Research and Thesis III)	4
Hours Subtotal		**19**
Doctoral Seminars		
BADM 6200	Instructional Leadership and Academic Curriculum in Business	2
BADM 6513	Org Science I: Micro Issues in Business (Advanced Organizational Behavior)	3
BADM 6523	Org Science II: Macro Issues in Business (Advanced Strategic Management)	3
EEE 6343	Entrepreneurship Processes	3
MKTG 6100	Advanced Seminar in Marketing (Theory Building)	3
MSIS 6300	Contemporary Topics in MSIS Research	3
Hours Subtotal		**17**
Applied Research Practicum		
BADM 6713	Theory Building and Scientific Research in Business	3
BADM 6100	Seminar in Business Administration	3
BADM 6100	Seminar in Business Administration	3
BADM 6100	Seminar in Business Administration	3
Hours Subtotal		**12**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Finance, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Research Methods		
STAT 5253	Mathematical Statistics I	3
STAT 5263	Mathematical Statistics II	3
Select 9 hours from the following:		9
ACCT 6110	Graduate Readings and Special Topics in Accounting	
ACCT 6703	Seminar in Accounting Research	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
STAT 5053	Time Series Analysis	
STAT 5063	Statistical Machine Learning with R	
STAT 5073	Categorical Data Analysis	
STAT 5123	Probability Theory	
STAT 5133	Stochastic Processes	
STAT 5213	Bayesian Analysis	
STAT 5513	Multivariate Analysis	
ECON 6010	Seminar in Economic Policy	
ECON 6033	Macroeconomic Theory I	
AGEC 6213	Advanced Econometrics	
Hours Subtotal		**15**
Dissertation Hours		
Select 15 hours of Thesis		15
Hours Subtotal		**15**
Doctoral Seminars		
FIN 6053	Financial Theory and Corporate Policy	3
FIN 6660	Seminar in Finance	5
FIN 6660	Seminar in Finance	5
FIN 6660	Seminar in Finance	5
FIN 5763	Derivative Securities and the Management of Financial Price Risk	3
FIN 5773	Financial Engineering	3
Hours Subtotal		**24**
Guided Electives		
Required: Economics		
ECON 5033	Macroeconomic Analysis	3
ECON 6013	Microeconomic Theory I	3
ECON 6323	Mathematical Economics I	3
ECON 6213	Econometrics I	3
ECON 6243	Econometrics II	3
Hours Subtotal		**15**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Hospitality and Tourism Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Core Courses		
HTM 6111	Hospitality and Tourism Doctoral Studies and Research	1
HTM 6113	Hospitality and Tourism Education	3
HTM 6713	Contemporary Hospitality and Tourism Theory	3
HTM 6993	Advanced Hospitality and Tourism Research	3
Hours Subtotal		**10**
Electives (Specialization)		
Select 17 hours of approved 5000-level or above courses that fit your specialization/focus.		17
Hours Subtotal		**17**
Research Support Courses		
Select 18-30 hours.		18
Must Include:		
One Intermediate Statistics		
SOC 5243	Social Research Design	
SOC 5213	Techniques of Population Analysis	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5223	Statistical Inference	
STAT 5303	Experimental Designs	
STAT 5323	Theory of Linear Models I	
STAT 5333	Theory of Linear Models II	
STAT 5513	Multivariate Analysis	
REMS 5373	Educational Measurements	
REMS 6003	Analyses of Variance	
And One Advanced Statistics		
HDFS 6143	Structural Equation Modeling for HDFS Applications	
HDFS 6153	Multilevel Modeling for HDFS Applications	
MGMT 6553	Applied Multivariate and Structural Equation Modeling	
MSIS 6343	Advanced Methods in MSIS Research	
MKTG 6913	Measurement and Experimental Design	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6033	Factor Analysis in Behavioral Research	
STAT 5073	Categorical Data Analysis	
STAT 5303	Experimental Designs	
STAT 5333	Theory of Linear Models II	
STAT 5513	Multivariate Analysis	
STAT 6113	Probability Theory	
STAT 6203	Large Sample Inference	
STAT 6223	Advanced Statistical Inference	
Hours Subtotal		**18**
Dissertation		
15 hours of dissertation		15
Strongly encouraged:		
Approved internship in research and/or instruction (maximum of 3 hours for each intern program).		
Foreign or computer language skills.		
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Management Science and Information Systems, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Methods Courses		
Select 15 hours of approved courses.		15
Doctoral Seminar/Practicum Courses		
Select 18 hours of approved courses (12 hours of which must be from MSIS).		18
Electives		
Select 6 hours of approved courses.		6
Colloquia		
Select 3 hours of Colloquia		3
Dissertation		
Select 18 hours of dissertation.		18
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Research Methods		
MGMT 6353	Research Design	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6320	Doctoral Seminar in REMS	3
MGMT 6553	Applied Multivariate and Structural Equation Modeling	3
Hours Subtotal		**15**
Dissertation		
Select 18 hours of Dissertation		18
Hours Subtotal		**18**
Doctoral Seminars		
MGMT 6313	Advanced Organizational Behavior	3
MGMT 6323	Advanced Strategic Management	3
MGMT 6333	MESO Organization Studies	3
MGMT 6343	Contemporary Research in Management I	3
Hours Subtotal		**12**
Guided Electives		
Additional coursework will be chosen by the student, in conjunction with a faculty committee, to support the individual student's specific interests and/or needs. In cases where an incoming student does not have an undergraduate degree in Business or an MBA, it may be determined that s/he needs to take one or more leveling courses in the functional areas of business (e.g., Accounting, Finance, Marketing, etc.).		15
Hours Subtotal		**15**
Total Hours		**60**

Additional Business Administration, PhD, Requirements

- Minimum grade of "B" required on all degree courses

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration: Marketing, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Research Methods		
MKTG 6413	Advanced Marketing Research	3
MKTG 6913	Measurement and Experimental Design	3
MKTG 6323	Seminar in Advanced Consumer Behavior	3
MKTG 6513	Seminar in Marketing Theory	3
MKTG 6683	Seminar in Marketing Strategy	3
Hours Subtotal		**15**
Electives		
27 hours of electives		27
Required Electives		
MKTG 6100	Advanced Seminar in Marketing	
BADM 6100	Seminar in Business Administration	
MSIS 6343	Advanced Methods in MSIS Research	
Additional electives chosen in consultation with advisor		
Dissertation		
Select 18 hours of dissertation		18
Hours Subtotal		**45**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Chemical Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5303	Introduction to Science and Engineering Research	3
Hours Subtotal		**15**
Seminar		
Six hours from:		6
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		**6**
Electives		
Approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		15
Suggested Elective Courses		
CHE 5073	Tissue Engineering	
CHE 5133	Catalysis and Photocatalysis	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
CHE 5323	Electrochemical Engineering	
CHE 5373	Process Simulation	
CHE 5493	Molecular Modeling and Simulation	
CHE 5523	Colloid Processing	
CHE 5603	Membrane Separations	
CHE 5753	Applied Numerical Computing for Scientists and Engineers	
CHE 5273	Basic Physiology and Physiological System Analysis for Engineers	
Hours Subtotal		**15**
Thesis		
CHE 6000	Doctoral Thesis [1]	24
Hours Subtotal		**24**
Total Hours		**60**

Total Hours: 30 (Beyond the Master's Degree from Oklahoma State University, 60 hours on the Plan of Study)

Code	Title	Hours
Seminar		
Four hours from:		4
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		**4**
Electives		
Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		9
Hours Subtotal		**9**
Thesis		
CHE 6000	Doctoral Thesis [1]	17
Hours Subtotal		**17**
Total Hours		**30**

1

With approval of the student's advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in CHE 6000; but the number of CHE credits may be no less than 15.

Total Hours: 42 (Beyond the Master's Degree, 60 hours on the Plan of Study)[2]

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5303	Introduction to Science and Engineering Research	3
Hours Subtotal		**15**
Seminar		
Six hours from:		6
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		**6**
Electives		
Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		6
Hours Subtotal		**6**
Thesis		
Fifteen hours from:		15
CHE 6000	Doctoral Thesis	
Hours Subtotal		**15**
Total Hours		**42**

2

With at least 18 transfer credit hours, transfer credits must have grades of "B" or better, be less than ten years old at the time of the student's graduation, and approved by the Graduate Program Advisory Committee.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Chemistry, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 90

Code	Title	Hours
Core Courses		
CHEM 5001	Introduction to Chemistry Research	1
CHEM 5000	Thesis	6
CHEM 5011	Graduate Seminar	1
CHEM 6010	Research Seminar	7
CHEM 6011	Advanced Seminar	1
Hours Subtotal		**16**
Electives		
Select 20 hours from the following:		20
CHEM 5053	Foundations of Physical Chemistry	
CHEM 5063	Foundations of Organic Chemistry	
CHEM 5073	Foundations of Analytical Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5103	Physical and Chemical Separations	
CHEM 5223	Polymer Chemistry	
CHEM 5373	Spectrometric Identification of Organic Compounds	
CHEM 5443	Mechanism and Structure in Organic Chemistry	
CHEM 5563	Chemical Thermodynamics I	
CHEM 5963	Advanced Inorganic Chemistry	
CHEM 6103	Electroanalytical Chemistry	
CHEM 6223	Physical Polymer Science	
CHEM 6420	Special Topics in Organic Chemistry	
CHEM 6650	Selected Topics in Chemistry	
Hours Subtotal		**20**
Dissertation		
Fifty-four hours from:		54
CHEM 6000	Doctoral Dissertation Research	
Hours Subtotal		**54**
Total Hours		**90**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Civil Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 48 (Beyond the Master's Degree)

Code	Title	Hours
Coursework		
Select 18 credit hours of approved 5000-level coursework.		18
Hours Subtotal		**18**
Thesis		
Thirty hours from:		30
CIVE 6000	PhD Research Dissertation	
Hours Subtotal		**30**
Total Hours		**48**

Total Hours: 72 (Beyond the Bachelor's Degree)

Code	Title	Hours
Coursework		
Select 42 hours of approved 5000-level coursework.		42
Hours Subtotal		**42**
Thesis		
Thirty hours from:		30
CIVE 6000	PhD Research Dissertation	
Hours Subtotal		**30**
Total Hours		**72**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Community Health Sciences, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Community Health Core		
HLTH 5653	Foundations of Public Health Education and Promotion	3
HLTH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	3
HLTH 5453	Cultural Issues In Health	3
Hours Subtotal		**15**
Statistics & Research Methods Core		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
SCFD 6123	Qualitative Research I	3
Any 6000 level statistics or research methods course		3
Hours Subtotal		**12**
Community Health Electives		
Select 9 hours		9
Suggestive, but not exclusive list of courses		
HLTH 5113	Psychological Aspects of Health	
HLTH 5133	Environmental Health	
HLTH 5323	General Epidemiology	
HLTH 5233	Sexuality and Health	
MPH 5103	Grant Writing in Public Health	
MPH 5543	Leadership, Policy, and Ethics in Public Health	
Hours Subtotal		**9**
Cognate Area		
Select 9 hours (e.g. nutrition, sexual health, health communication, statistics)		9
Further coursework in a field of study in an area of interest. Coursework may be selected from several related disciplines or a single discipline, as approved by a student's advisory committee.		
Hours Subtotal		**9**
Independent Research		
HLTH 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Comparative Biomedical Sciences, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Coursework		
CBSC 5013	Comparative Biomedical Sciences I: Cell & Molecular Biology	3
CBSC 5023	Comparative Biomedical Sciences II: Pathophysiology	3
STAT 5013	Statistics for Experimenters I	3
STAT 5083	Statistics for Biomedical Researchers	3
CBSC 6110	Seminar	3
Forty-five hours from:		45
CBSC 6000	PhD Research and Dissertation	
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Computer Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Requirements [1, 2]		
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
CS 5513	Numerical Computation	3
Hours Subtotal		**15**
Research Specialization		
Select 12 hours from one area of CS at the 6000 level, excluding CS 6000.		12
Hours Subtotal		**12**
Secondary Area of Study		
Select 6 hours in one area of CS at the 6000 level, outside the area of specialization and excluding CS 6000.		6
Hours Subtotal		**6**
Electives [3, 4]		
Select 6 hours of elective CS courses at the 5000-level or above.		6
Hours Subtotal		**6**
Other Requirements		
Twenty-one hours from:		21
CS 6000	Doctoral Dissertation	
Hours Subtotal		**21**
Total Hours		**60**

1

For Ph.D. students who have not earned a master's degree, at most one grade of "C" in a core course is acceptable providing it is offset by a grade of "A" in another core course.

2

A student who has completed a master's degree at another university may petition to have one or more of the OSU core courses waived in favor of equivalent graduate-level course(s) taken elsewhere. The question or whether or not a course at another university is equivalent to an OSU core course is entirely up to the judgment of the department.

3

These elective hours cannot include any courses claimed Core Requirements, Research Specialization or Secondary Area of Study, nor may they include any courses used on the plan of study for a master's degree, nor may they include any hours of CS 5000 or of CS 6000.

4

Students who have not completed a master's degree must satisfy the above elective requirements in this item plus the elective requirements for the master's degree (under the thesis option) in this department.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Counseling Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 117

Code	Title	Hours
General Psychology Core		
History and Systems of Psychology		
FDEP 6133	History and Systems of Psychology	3
Biological Bases of Behavior		
EPSY 5320	Seminar in Educational Psychology [1]	3
or PSYC 6483	Neurobiological Psychology	
Cognitive/Affective Bases of Behavior		
EPSY 6163	Emotion and Cognition	3
Social Bases of Behavior		
FDEP 5183	Theories of Social Psychology	3
or PSYC 6563	Advanced Social Psychology	
Individual Behavior		
CPSY 6153	Personality Theories	3
EPSY 5103	Human Development in Psychology	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
or PSYC 5113	Psychopathology	
Psychogical Measurement and Assessment		
CPSY 5523	Assessment in Counseling	3
EPSY 5320	Seminar in Educational Psychology	3
CPSY 6123	Adult Personality Assessment	3
Hours Subtotal		**30**
Counseling Psychology Core		
Theories and Interventions		
CPSY 5553	Theories of Counseling	3
CPSY 6083	Principles of Counseling Psychology	3
CPSY 5453	Vocational and Career Information	3
CPSY 5583	Group Process	3
CPSY 6543	Clinical Supervision	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
Professionalism and Ethics		
CPSY 6053	Ethical and Legal Issues in Professional Psychology	3
Multicultural Counseling		
CPSY 5503	Multicultural Counseling	3
Supervised Practicum Experiences		
CPSY 5593	Counseling Practicum	3
CPSY 6413	Counseling Psychology Practicum I	3
CPSY 6423	Counseling Psychology Practicum II	3
CPSY 6433	Counseling Psychology Practicum III	3
CPSY 6443	Counseling Psychology Practicum IV	3
Doctoral Dissertation Hours (15 Minimum)		
Fifteen hours from:		15
CPSY 6000	Doctoral Dissertation	
Internship		
Six hours from:		6
CPSY 6560	Advanced Internship in Counseling	
Hours Subtotal		**60**
Research Core		
Statistics and Methods of Research and Evaluation		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Quantitative Statistics Core		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
or REMS 6663	Applied Multivariate Research in Behavioral Studies	
or REMS 6023	Psychometric Theory	
Qualititative Research Core		
SCFD 5913	Introduction to Qualitative Inquiry	3
or SOC 5273	Qualitative Research Methods	
Hours Subtotal		**18**
Electives		
3 at 3 credits each		9
Hours Subtotal		**9**
Total Hours		**117**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Crop Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 48 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Fifteen (15) hours from:		15
SOIL 6000	Doctoral Thesis	
SOIL 5020	Graduate Seminar	1
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences	1
SOIL 5120	Teaching Practicum in Plant and Soil Sciences	1
Graduate course from SOIL/PLNT		9
Graduate-level STAT		6
Hours Subtotal		**33**
Graduate courses, Research (SOIL 5230), Problems and Special Studies (SOIL 5110), Advanced Topics and Conference (SOIL 6010) or Dissertation (SOIL 6000)		15
Hours Subtotal		**15**
Total Hours		**48**

Crop Science Requirements

- No more than 15 credit hours of 3000- or 4000-level courses can be approved for graduate credit.
- No more than 6 credit hours of PLNT 5110 and PLNT 6010 can be approved for graduate credit.
- 18 additional credit hours as coursework, dissertation hours (PLNT 6000) or research hours (PLNT 5230 - maximum of 8 credit hours total) can be granted toward graduation.
- All students must indicate on their plans of study whether or not their research will involve human subjects. If human subjects are to be used, approval must be received from the Institutional Research Board (IRB) prior to the beginning of the research.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Curriculum Studies: College Curriculum and Teaching, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 63 (Beyond the Master's degree)

Code	Title	Hours
Required Common Core		
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		**12**
Research and Inquiry		
Research Inquiry Core		
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select appropriate courses in consultation with their advisor and dissertation committee.		
Select 9 hours - examples of courses are the following:		9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Design for Higher Education	
HIST 5023	Historical Methods	
REMS 5373	Educational Measurements	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
SOC 5273	Qualitative Research Methods	
STAT 5043	Sample Survey Designs	
Hours Subtotal		**12**
Specialization		
Select 6-15 credit hours (Specialization and Cognate courses adding to 24 hours minimum).		
Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:		
HESA 6713	Effective Teaching in College and Universities	
CIED 6133	Theory to Practice in Education	
CIED 6073	Advanced Pedagogical Research	
CIED 6183	Advanced Media Literacy Across the Curriculum	
CIED 6040	Special Topics in College Curriculum and Teaching	
HESA 6583	The Impact of College on Students and Society	
HESA 6753	Historical Development of U.S. Higher Education	
HESA 6843	The Academic Department	
SCFD 6983	Diversity and Equity Issues in Education	
SCFD 6883	Transforming Pedagogies	
Cognate/Electives		
Select 9-18 credit hours (Specialization and Cognate courses adding to 24 hours minimum).		
Students select appropriate related courses according to their interests in consutation with their advisor and dissertation committee. These are to be graduate courses available at Oklahoma State University. Subject electives with the advisor's approval.		
Hours Subtotal		**24**
Dissertation Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Total Hours		**63**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Curriculum Studies: Curriculum and Leadership, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 63

Code	Title	Hours
Required Common Core		
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		**12**
Research and Inquiry		
Research Inquiry Core		
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select appropriate courses in consultation with their advisor and dissertation committee.		
Select 9 hours - examples of courses are the following:		9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Design for Higher Education	
HIST 5023	Historical Methods	
REMS 5373	Educational Measurements	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
SOC 5273	Qualitative Research Methods	
STAT 5043	Sample Survey Designs	
Hours Subtotal		**12**
Specialization		
Select 15 credit hours.		15
Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:		
CIED 6030	Contemporary Issues in Curriculum Studies	
CIED 6043	Curriculum Leadership	
CIED 6073	Advanced Pedagogical Research	
CIED 6133	Theory to Practice in Education	
CIED 6143	School Reform	
CIED 6183	Advanced Media Literacy Across the Curriculum	
LLCE 6683	Language, Literacy and Culture	
SCFD 6983	Diversity and Equity Issues in Education	
CIED 5123	Curriculum in the Secondary School	
CIED 5313	Curriculum of the Elementary School	
Cognate/Electives		
Select 9 credit hours.		9
Students select appropriate related courses according to their interests in consultation with their advisor and dissertation committee. These are to be graduate courses available at Oklahoma State University.		
Hours Subtotal		**24**
Dissertation Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**15**
Total Hours		**63**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Curriculum Studies: International and Peace Curriculum, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 63

Code	Title	Hours
Required Common Core		
CIED 6033	Analysis of Teaching	3
CIED 6053	Advanced Curriculum Studies	3
CIED 6063	Curriculum History	3
CIED 6153	Curriculum of Nonviolence	3
Hours Subtotal		**12**
Research and Inquiry		
Research Inquiry Core		
CIED 6163	Advanced Research Strategies in Curriculum	3
Extended Inquiry		
Students select appropriate courses in consultation with their advisor and dissertation committee.		
Select 9 hours - examples of courses are the following:		9
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6853	Research Traditions in Educational Leadership	
HESA 6853	Research Design for Higher Education	
HIST 5023	Historical Methods	
REMS 5373	Educational Measurements	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
SOC 5273	Qualitative Research Methods	
STAT 5043	Sample Survey Designs	
Hours Subtotal		**12**
Specialization		
Select 15 credit hours.		15
Students select appropriate courses in consultation with their advisor and dissertation committee. Examples of courses are the following:		
CIED 6043	Curriculum Leadership	
CIED 6173	International Peace Curriculum Development	
CIED 6030	Contemporary Issues in Curriculum Studies [1]	
or CIED 6040	Special Topics in College Curriculum and Teaching	
CIED 5723	Gender and Curriculum	
CPSY 5503	Multicultural Counseling	
CPSY 6223	Beck's Cognitive Therapy	
HESA 6163	International Issues in Higher Education	
SCFD 6023	Comparative Education	
SCFD 6983	Diversity and Equity Issues in Education	
SOC 6463	International Issues in Environmental Sociology	
PHIL 5343	Seminar in East and West Comparative Philosophy	
SOC 5323	Seminar on Collective Behavior and Social Movements	
SOC 5493	Seminar in Environmental Justice	
Cognate/Electives		
Select 9 credit hours.		9
Students select appropriate related courses according to their interests in consutation with their advisor and dissertation committee. These are to be graduate courses available at Oklahoma State University.		
Hours Subtotal		
Dissertation Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**39**
Total Hours		**63**

[1] CIED 6030 or CIED 6040 can be taken with advisor approval.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Economics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 64

Code	Title	Hours
Degree Core		
Required Courses		
ECON 5033	Macroeconomic Analysis	3
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
ECON 6023	Microeconomic Theory II	3
ECON 6033	Macroeconomic Theory I	3
ECON 6043	Macroeconomic Theory II	3
ECON 6213	Econometrics I	3
ECON 6233	Time Series Econometrics	3
ECON 6243	Econometrics II	3
ECON 6323	Mathematical Economics I	3
ECON 6613	International Finance	3
ECON 6623	Economic Development I	3
ECON 6633	International Trade	3
ECON 6643	Economic Development II	3
ECON 6903	Regional Economic Analysis and Policy	3
ECON 6913	Urban Economics	3
Sixteen hours from:		16
ECON 6000	Research and Thesis	
Hours Subtotal		**64**
Other Requirements		
Microeconomic Theory Prelim		
Macroeconomic Theory Prelim		
Third-Year Paper		
Total Hours		**64**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Educational Administration, EdS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36 (Beyond the Master's Degree)

Code	Title	Hours
General EDLE Doctoral Core		
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6633	School Leadership and Community Collaboration	3
Hours Subtotal		**9**
Emphasis Core		
EDLE 6453	Special Topics in Education Law	3
EDLE 6353	The Superintendency	3
EDLE 6363	Special Topics in School Finance Policy	3
EDLE 6423	The Politics of Education	3
or EDLE 6393	The Human Factor in Administering Schools	
EDLE 6603	Organizational Theory in Education	3
or EDLE 5953	Developing Educational Organizations	
Hours Subtotal		**15**
Research and Inquiry		
EDLE 6853	Research Traditions in Educational Leadership	3
SCFD 6123	Qualitative Research I	3
or REMS 6373	Program Evaluation	
Hours Subtotal		**6**
Fieldwork		
EDLE 6883	Internship in Education I	3
EDLE 6893	Internship in Education II	3
Hours Subtotal		**6**
Required Component: Portfolio [1]		
The Portfolio, designed and completed by Candidates to exhibit competency in the ELCC Standards, serves as the Required Component for the Ed.S. degree in School Administration; satisfactory completion of the Portfolio is required for degree completion and recommendation for certification.		
Total Hours		**36**

1

Designates prerequisites.

Graduate College Specialist in Education (EdS) Requirements

Learn more about Graduate College 2025-2026 Specialist in Education (EdS) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Learning, Design and Technology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Common Core		
(Plan to take these 1st or 2nd semester)		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Research Courses		
Select 12 hours from the following:		12
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
CIED 6253	Designing and Conducting Mixed Methods Research	
CIED 6073	Advanced Pedagogical Research	
Hours Subtotal		**12**
Specialization		
Select 24 hours from the following:		24
EDTC 5203	Foundations of Educational Technologies	
EDTC 5503	Facilitating Online Learning	
EDTC 6153	Advanced Computer-Based Instructional Development	
EDTC 6333	Human Computer Interaction	
EDTC 6423	Trends and Issues in Educational Technology	
CIED 6183	Advanced Media Literacy Across the Curriculum	
EDTC 6613	Instructional Systems Design	
EDTC 6553	Media and Learning in Educational Technology	
EDTC 6283	Performance Improvement Technology	
EDTC 6850	Directed Reading	
EDTC 6880	Internship in Education	
EDTC 6910	Practicum	
Hours Subtotal		**24**
Cognate Area of Study		
Note: The Graduate Certificate in Online Teaching can be used as a cognate (must apply through the Graduate College since this is a separate program).		
Select 9 hours from the following:		9
EDTC 5053	Learning in a Digital Age	
EDTC 5103	Advanced Computing Applications in Education	
EDTC 5153	Computer-Based Instruction Development	
EDTC 5503	Facilitating Online Learning	
Hours Subtotal		**9**
Dissertation		
EDTC 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Literacies and Language Arts Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Common Program Core		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Research Methods		
Select 12 hours from courses such as these:		12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		**12**
Language, Literacy and Culture Option		
Select 24 hours from the following:		24
CIED 5463	Practicum I: Literacy Assessment and Instruction	
CIED 5473	Reading & Writing Difficulties	
CIED 5733	History of Reading	
CIED 5850	Directed Study	
CIED 6060	Advanced Special Topics in Literacy Education	
LLCE 6083	Seminar in Writing Pedagogy	
LLCE 6093	English Language Learners: Theory, Research, Policy and Practice	
LLCE 6193	21st Century Literacies: Theory, Research, and Practice	
CIED 6433	Seminar in Literacy	
LLCE 6513	Staff Development in Literacy Education	
LLCE 6653	Issues and Trends in Adolescent Literacy	
LLCE 6673	Theory and Research on Teaching Contemporary Children's and YA Literature	
LLCE 6683	Language, Literacy and Culture	
CIED 6880	Internship in Education (Internship for Teacher Educators)	
CIED 6880	Internship in Education (Internship in Literacy Research Methodologies)	
Hours Subtotal		**24**
Independent Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**15**
Electives/Cognate		
The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.		9
Hours Subtotal		**9**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Mathematics Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69 (Beyond the Master's Degree)

Code	Title	Hours
Common Program Core		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Extended Inquiry		
At least six of these hours, selected from courses such as those listed below, should be comprised of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.		12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
MATH 5913	Introduction to Research in Mathematics Education	
MATH 6923	Research in Undergraduate Mathematics Education	
Hours Subtotal		**12**
Cognate Area		
The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.		9
Hours Subtotal		**9**
Independent Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**15**
Specialization - Mathematics Education		
Required Courses		
SMED 6223	Instruction and Learning in Science and Mathematics Education	3
SMED 6233	Affective Issues in Teaching Mathematics and Sciences	3
SMED 6753	Research in Mathematics and Science Education	3
Or selected course with advisor's approval		
Elective Courses		
Select 15 hours from the following or other courses as approved by advisor:		15
CIED 5850	Directed Study	
CIED 6910	Practicum	
CIED 6850	Directed Reading	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5263	Assessment and Evaluation in School Mathematics	
SMED 5270	Practicum in School Mathematics	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5283	Inquiry Teaching and Learning in Science and Mathematics Education	
SMED 5293	Teaching and Learning Mathematics in Technology	
SMED 5613	Effective Teaching of Mathematics in the Secondary School	
SMED 5750	Seminar in Mathematics Education	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5943	Mathematics Leadership and Coaching	
Hours Subtotal		**24**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Science Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69 (Beyond the Master's Degree)

Code	Title	Hours
Common Program Core		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Extended Inquiry		
At least six of these hours, selected from courses such as those listed below, should be composed of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.		12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		**12**
Cognate Area		
The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.		9
Hours Subtotal		**9**
Independent Research		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**15**
Specialization - Science Education		
Required Courses		
SMED 6223	Instruction and Learning in Science and Mathematics Education	3
SMED 6233	Affective Issues in Teaching Mathematics and Sciences	3
SMED 6753	Research in Mathematics and Science Education	3
Or selected course with advisor's approval		
Electives		
Select 15 hours from the following or other courses as approved by the advisor:		15
CIED 5850	Directed Study	
CIED 6910	Practicum	
CIED 6850	Directed Reading	
CIED 5720	Education Workshop	
CIED 5850	Directed Study	
CIED 6850	Directed Reading	
CIED 6910	Practicum	
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5243	Environmental Education in the Curriculum	
SMED 5280	Workshop in Science Education	
SMED 5313	Introduction to K-12 Engineering Education	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
SMED 5813	Assessment in Science Education	
SMED 6123	Teaching the Nature of Science in Secondary Science Education	
Hours Subtotal		**24**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Social Foundations of Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Common Program Core		
(Typically taken within the first 3 semesters)		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Research Courses		
12 credit hours, at least one qualitative and one quantitative course at 6000-level. (Note: all 6000-level REMS quantitative courses require prerequisites of REMS 5013 and REMS 5953, which will not count toward the 69 total hours). Only one 5000-level course (excluding REMS 5013 and REMS 5953) may count toward the required coursework in this category.		
Pending committee approval, appropriate courses include the following:		12
CIED 6073	Advanced Pedagogical Research	
CIED 6163	Advanced Research Strategies in Curriculum	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDLE 6910	Practicum (May only be taken the last term of coursework)	
HIST 5023	Historical Methods	
HIST 6023	Historiography	
REMS 6373	Program Evaluation	
REMS 6383	Program Evaluation II	
Quantitative Approaches		
REMS 6003	Analyses of Variance [1]	
REMS 6013	Multiple Regression Analysis in Behavioral Studies [2]	
REMS 6663	Applied Multivariate Research in Behavioral Studies [3]	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
Qualitative Methodologies		
GEOG 5423	Geographic Renderings in Qualitative Methods	
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6163	Ethnography	
SCFD 6173	Visual Methodologies	
SCFD 6183	Narrative Research Methodologies	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
SOC 6853	Seminar in Symbolic Interactionism	
Hours Subtotal		**12**
Social Foundations Core		
24 credit hours, at least one 6000-level course (except for SCFD 5713, SCFD 5883) from each of the four areas of Social Foundations: Philosophy of Education, History of Education, Anthropology of Education, and Sociology of Education.		24
SCFD 5023	The Comparative Approach: Theory, Method, and Practice	
SCFD 5123	History of Education	
SCFD 5713	Educational Philosophy [4]	
SCFD 5883	Educational Sociology [4]	
SCFD 6853	Anthropology of Education [4]	
SCFD 5873	Culture, Society and Education	
SCFD 5923	Popular Culture and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SCFD 6023	Comparative Education	
SCFD 6443	Ethics and Moral Education	
SCFD 6850	Directed Reading	
SCFD 6883	Transforming Pedagogies	
SCFD 6630	Topics in Philosophy Education	
SCFD 6990	Seminar in Social Foundations	
Hours Subtotal		**24**
Cognate Area		
Students take 9 credit hours in a concentration or cognate area based on their research interest and in consultation with their advisor and dissertation committee. These areas are available at Oklahoma State University, especially in the College of Education, Health and Aviation and the College of Arts and Sciences. They can be, but are not limited to, the following areas:		9
History; Philosophy; Sociology; International Studies; Comparative Education; Gender and Women's Studies; Higher Education; Educational Administration; Educational Technology; Pedagogy; STEM Education; College Teaching; Qualitative Inquiry; Research, Evaluation, Measurement, and Statistics; Special Education; Curriculum Studies; Media and Culture		
Hours Subtotal		**9**
Independent Research		
CIED 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**69**

1 Requires REMS 5013 and REMS 5953 as prerequisites.

2 Requires REMS 6003 as prerequisite.

3 Requires REMS 6013 as prerequisite.

4 Must take if no equivalent course has been taken in Master's program.

Education: Social Foundations of Education Requirements

- All students admitted into the Ph.D. degree option in Social Foundations are expected to meet all university requirements and the

requirements for admission to the Ph.D. in Education. Students with little or no background in social foundations may be required to take additional leveling coursework. The Social Foundations admission committee determines such prerequisite considerations. Specific graduate courses that may be required as a leveling course include SCFD 5223, SCFD 5873, SCFD 5923, SCFD 5990, SCFD 5998.

- Students will be expected to use technology resources appropriately in course projects, assignments, and research. Ph.D. in Education (69 credit hours minimum, with typically no more than two 5000-level courses (in addition to SCFD 5713, SCFD 5883, if these courses are taken as part of Ph.D. coursework). Leveling courses are not included in the 69 hours.)

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Special Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Required Core		
CIED 6503	Doctoral Seminar	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6983	Diversity and Equity Issues in Education	3
Hours Subtotal		**9**
Research		
Choose 12 hours from the following or other courses as approved by advisor (must include one quantitative and one qualitative course):		12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		**12**
Cognate or Electives with a Thematic Focus		
Select 9 hours		9
Hours Subtotal		**9**
Specialization		
Select 24 hours from the following or other courses as approved by advisor:		24
SPED 6183	Legal Aspects in Special Education	
SPED 6543	School and Interagency Collaboration	
SPED 6603	Current Trends and Issues in Special Education	
SPED 6743	Single Subject Design in Special Education	
SPED 6880	Internship in Education	
SPED 6850	Directed Reading	
SPED 5993	Culturally Responsive Teaching in Special Education	
SPSY 6333	Instructional Assessment and Consultation	
EPSY 6323	Psychological Consultation	
Hours Subtotal		**24**
Dissertation		
15 hours from:		15
CIED 6000	Doctoral Dissertation	
Hours Subtotal		**15**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Education: Workforce and Adult Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 72

Code	Title	Hours
Required Courses		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
Hours Subtotal		**6**
Extended Inquiry		
Select 12 hours from the following:		12
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Other courses as appropriate and available		
Hours Subtotal		**12**
Specialization Structure (Core for WAED)		
WAED 6103	Philosophy of Workforce and Adult Education	3
WAED 6233	Managing Knowledge in Learning Organizations	3
CIED 6503	Doctoral Seminar	3
WAED 6353	Future of Technology, Work and Society	3
WAED 5010	Seminar	3
Hours Subtotal		**15**
Specialization Electives		
Select 15 hours from the following:		15
WAED 5123	Administration & Evaluation of Workforce and Adult Education	
WAED 5133	Internationalism, Globalization and Workforce Education	
WAED 5153	Curriculum Planning in Workforce and Adult Education	
WAED 5233	Advanced Instructional Procedures in Workforce and Adult Education	
WAED 5313	Overview of Workforce and Adult Education	
WAED 5333	Administration and Supervision of Workforce Education Programs	
WAED 5340	Special Problems in Workforce and Adult Education	
WAED 5423	Individualized Competency Based Instruction and Customized Training	
WAED 5720	Workshop	
WAED 5910	Developing and Analyzing Teaching Content	
WAED 6343	Financing Workforce and Adult Education	
WAED 6880	Doctoral Internship in Workforce and Adult Education	
Others by permission of doctoral committee chair		
Hours Subtotal		**15**
Cognate Area		
Coursework comprising a cognate area can come from inside the College of Education, Health and Aviation or from outside the College. Courses selected for the cognate need approval of the doctoral committee chair and must be 5000- and 6000-level courses.		9
Hours Subtotal		**9**
Independent Research		
WAED 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Research and Scholarship Preparation		
In additional to the requirements listed above for degree completion, students must have (a) presented at a professional conference and (b) submitted an article for refereed publication. Faculty will support and mentor candidates through these processes.		
Total Hours		**72**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership and Policy Studies: Educational Administration, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 72

Code	Title	Hours
General EDLE Doctoral Core		
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6603	Organizational Theory in Education	3
EDLE 6873	Leading Schools with Data	3
Hours Subtotal		**12**
Inquiry Core		
EDLE 6853	Research Traditions in Educational Leadership	3
SCFD 6123	Qualitative Research I	3
SCFD 6193	Qualitative Research II *	3
REMS 6003	Analyses of Variance *	3
Select 6 hours from the following		6
REMS 6013	Multiple Regression Analysis in Behavioral Studies *	
REMS 6373	Program Evaluation *	
REMS 5373	Educational Measurements *	
Alternate research courses may be taken with committee approval.		
Hours Subtotal		**18**
Option Area: Educational Administration		
Required Core		
EDLE 6423	The Politics of Education	3
EDLE 6453	Special Topics in Education Law	3
EDLE 6363	Special Topics in School Finance Policy	3
EDLE 6393	The Human Factor in Administering Schools	3
Hours Subtotal		**12**
Electives		
Select 6 hours from the following:		6
EDLE 6003	Educational Ideas	
EDLE 6343	Problem Solving in School Administration	
EDLE 6353	The Superintendency	
EDLE 6633	School Leadership and Community Collaboration	
EDLE 6650	Problems in Educational Administration	
HESA 6733	Planning and Educational Change	
REMS 5953	Statistical Methods in Education	
WAED 5353	Instructional Strategies for Adults	
WAED 5013	Foundations and Characteristics of Adult Learning	
Hours Subtotal		**6**
Cognate or Electives with a Thematic Focus		
Select 9 hours		9
Independent Research (Dissertation)		
Minimum of 15 hours		15
Cognate courses, selected electives and any additional courses require committee approval.		
Total Hours		**72**

*

Denotes classes with prerequisites

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership and Policy Studies: Higher Education, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 63 (beyond the Master's degree)

Code	Title	Hours
Required Core		
HESA 6213	Higher Education Student Personnel Services	3
HESA 6733	Planning and Educational Change	3
HESA 6823	Educational Leadership	3
Hours Subtotal		**9**
Applied Research Inquiry Core		
HESA 6813	Conceptualizing the Study of Higher Education	3
HESA 6853	Research Traditions in Higher Education and Student Affairs [1]	3
SCFD 6123	Qualitative Research I	3
REMS 6003	Analyses of Variance [2]	3
Select 3 hours from the following: [2]		3
REMS 6013	Multiple Regression Analysis in Behavioral Studies [2]	
SCFD 6193	Qualitative Research II [2]	
Hours Subtotal		**15**
Extending Higher Education Knowledge		
Required Core		
HESA 6463	Higher Education Law	3
HESA 6553	Public Policy and Higher Education	3
HESA 6703	Finance in Higher Education	3
HESA 6753	Historical Development of Higher Education	3
Elective or Cognate [3]		
Select 6 hours from the following (or other courses approved by the doctoral committee): [3]		6
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	
HESA 6123	College Student Sexuality	
HESA 6163	International Issues in Higher Education	
HESA 6243	Internship in Higher Education and Student Affairs I	
HESA 6573	Institutional Research and Policy Analysis	
HESA 6583	The Impact of College on Students and Society	
HESA 6683	The U.S. Two-Year/Community College	
HESA 6713	Effective Teaching in College and Universities	
HESA 6833	College and University Presidency	
HESA 6843	The Academic Department	
HESA 6850	Directed Readings in Higher Education and Student Affairs	
SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		**18**
Independent Research/Dissertation		
Minimum of 21 hours		21
HESA 6850	Directed Readings in Higher Education and Student Affairs	
HESA 6903	Dissertation Proposal Writing	
HESA 6000	Doctoral Dissertation (Minimum of 15 hours)	
Hours Subtotal		**21**
Total Hours		**63**

NOTE: A set of additional committee- or faculty-approved developmental activities, termed "residency," are required.

1

HESA 6853 must be successfully completed prior to all research coursework.

2

Denotes classes with prerequisites.

3

Electives and any additional courses must be approved by the student's committee.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Psychology: Educational Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 69

Code	Title	Hours
Domain I - Research and Inquiry		
Required Courses for Domain I		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
SCFD 6113	Theoretical Foundations of Inquiry	3
Other coursework recommended for expertise in the Research and Inquiry Domain:		9
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
REMS 6373	Program Evaluation	
REMS 6383	Program Evaluation II	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 6673	Item Response Theory	
REMS 6683	Multilevel Modeling Methods in Education	
REMS 6693	Structural Equation Modeling for Behavioral and Educational Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
Hours Subtotal		**18**
Domain II: Foundations of Educational Psychology		
Required Courses		
EPSY 5001	Colloquium: Educational Psychology	1
EPSY 5320	Seminar in Educational Psychology	8
EPSY 6213	Advanced Educational Psychology	3
EPSY 6533	Human Motivation	3
Select at least three courses from the following (two must be 6000-level):		9
EDTC 6613	Instructional Systems Design	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
EPSY 6043	Adult Development	
EPSY 6153	Advanced Research in Educational Psychology	
EPSY 6163	Emotion and Cognition	
EPSY 6443	Theories and Problems in Educational Psychology	
SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		**24**
Area of Expertise Domain III:		
Select 12 hours		12
Student-scholars select 12 hours related to an area of expertise based on student career goals, expertise, interest and background. Examples of areas of expertise may derive from the other domains, such as measurement or program evaluation in a specific context; instructional development for students with diverse needs; studies of gender, race, class, ability; multicultural issues in education; adult development or aging learners; social and emotional needs of children, and many others.		
Hours Subtotal		**12**
Dissertation (Doctoral Thesis)		
EPSY 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**69**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Psychology: Research, Evaluation, Measurement and Statistics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 66 (Beyond the Master's Degree)

Code	Title	Hours
Inquiry Core [1]		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6023	Psychometric Theory	3
REMS 6373	Program Evaluation	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6123	Qualitative Research I	3
Hours Subtotal		**21**
Educational Psychology Degree Core		
Select a minimum of 9 hours:		9
Human Development		
EPSY 5103	Human Development in Psychology	
EPSY 6043	Adult Development	
Learning and Cognition		
EPSY 5463	Psychology of Learning	
EPSY 6163	Emotion and Cognition	
EPSY 6533	Human Motivation	
Hours Subtotal		**9**
Research, Evaluation, Measurement, and Statistics Specialization		
Select 12 hours from the following, including 9 hours at 6000-level:		12
(The following is not an exhaustive list. Additional relevant coursework may be found in other departments: e.g., PSYC, STAT, SOC, HDFS. Check Catalog for applicable prerequisites.)		
REMS 5373	Educational Measurements	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6320	Doctoral Seminar in REMS	
REMS 6383	Program Evaluation II	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 6673	Item Response Theory	
REMS 6683	Multilevel Modeling Methods in Education	
REMS 6693	Structural Equation Modeling for Behavioral and Educational Research	
REMS 6850	Directed Reading	
STAT 5043	Sample Survey Designs	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		**12**
Cognate Area		
Select minimum of 9 hours:		9
Courses will be selected from one or two cognate areas to develop and improve knowledge and skills in a content and/or methodological area. Following are some examples of congnate areas and relative choices in coursework. This is not an exhaustive list.		
Student Development and Higher Education		
EDLE 5953	Developing Educational Organizations	
Mathematical Sciences		
MATH 5593	Methods of Applied Mathematics	
STAT 5093	Statistical Computing	
STAT 5123	Probability Theory	
STAT 5133	Stochastic Processes	
STAT 5213	Bayesian Analysis	
STAT 6113	Probability Theory	
STAT 6223	Advanced Statistical Inference	
Institutional Research		
STAT 5033	Nonparametric Methods	
Measurement and Cognitive Psychology		
PSYC 4813	Psychological Testing	
EPSY 5663	Creativity for Teachers	
EPSY 6533	Human Motivation	
EPSY 6163	Emotion and Cognition	
PSYC 5823	Cognitive Processes	
Hours Subtotal		**9**
Qualifying Exams		
Students must pass a written and oral comprehensive exam. Passing the exams qualifies students for Admission to Doctoral Candidacy, and they should move to the dissertation proposal phase.		
Dissertation Hours		
REMS 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Applied Experience		
Each student will select two suggested experiences.		
Total Hours		**66**

1 REMS 5013 and REMS 5953 are required prerequisites.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Electrical Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 73 (beyond the Bachelor's Degree)

Code	Title	Hours
Lecture Courses		
Select 33 hours that may include up to 6 credit hours of ECEN 5070 or equivalent with approval of the student's graduate advisory committee.		33
Preliminary PhD Research and Proposal		
ECEN 6050	Preliminary PhD Research and Proposal	3
PhD Seminar Series		
ECEN 6001	PhD Seminar Series	1
Dissertation Research		
Thirty hours from:		30
ECEN 6000	Dissertation	
Additional Courses		
May include additional lecture courses, Master's thesis (ECEN 5000 or equivalent), and/or dissertation research hours as approved by the student's graduate advisory committee.		6
Total Hours		**73**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

English, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
Core and Dissertation hours to total 60 hours.		60
Select 35-40 hours of coursework, per plan of study approved by advisor		
Dissertation		
ENGL 6000	Doctoral Dissertation	
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Entomology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
ENPP 5464	Insect Biology and Classification	4
ENTO 5003	Insect Biochemistry	3
ENPP 5044	Insect Morphology and Physiology	4
Recommended Courses		
ENPP 5992	Career Skills and Professionalism for Scientists	
ENPP 5523	Integrated Management of Insect Pests and Pathogens	
ENPP 5623	Advanced Biotechnology Methods	
Plus additional approved courses to complete the graduate program Plan of Study		49
Total Hours		**60**

Additional Requirements:

1. ENPP 5870 is required for students who did not take this course as part of an OSU Master's program.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Environmental Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
Core Courses		
ENVR 5123	Environmental Problem Analysis	3
ENVR 5303	Issues in Environmental Sustainability	3
Select 3 approved hours of Natural or Physical Science courses.		3
Select 6 approved hours of skills courses.		6
Hours Subtotal		**15**
Electives		
Select 21-30 approved elective hours.		
Dissertation		
ENVR 6000	Doctoral Research for Dissertation (15-24 hours)	
Electives and Dissertation Combined 45 Hours		45
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Fire and Emergency Management Administration, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Courses		
FEMP 5113	Fire and Emergency Services Administration Theory and Practice	3
FEMP 5123	Emergency Management Theory and Practice	3
FEMP 6103	Proseminar in Fire and Emergency Management	3
FEMP 6323	Organizational Behavior in Disasters	3
FEMP 6413	Seminar Risk Theory and Management	3
Hours Subtotal		**15**
Methods/Research		
FEMP 5013	Research Design & Methodology	3
FEMP 5023	Quantitative Methods for Fire and Emergency Management I	3
FEMP 6013	Qualitative Methods for Fire and Emergency Management	3
FEMP 6023	Quantitative Methods for Fire and Emergency Management II	3
Hours Subtotal		**12**
Electives		
Select 18 hours from the following: [1]		18
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	
FEMP 5413	Financial Administration for Fire and Emergency Management	
FEMP 5423	Labor Management for Fire and Emergency Management	
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 5233	Disaster Recovery	
FEMP 5243	Mitigation	
FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
FEMP 5323	Leadership and Management for Fire and Emergency Management	
FEMP 5333	Incident Command	
FEMP 5613	Complex Emergencies	
FEMP 5623	Emergency Management in the International Setting	
FEMP 5633	Emergency Management and Public Policy in the United States	
FEMP 5643	Politics of Disaster	
FEMP 5810	Special Topics Seminar in Fire and Emergency Management	
FEMP 5820	Special Topics Seminar in Emergency Management	
FEMP 5830	Special Topics Seminar in Fire Administration	
FEMP 6303	Populations at Risk	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6840	Directed Readings in Fire and Emergency Management	
FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
POLS 5673	Understanding and Responding to Terrorism	
Hours Subtotal		**18**
Dissertation Hours		
Fifteen hours from:		15
FEMP 6000	Dissertation	
Hours Subtotal		**15**
Total Hours		**60**

1

These 6 courses should be chosen in consultation with your advisor.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Food Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5300	Food Science Seminar	1
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Thirty hours from:		30
FDSC 6000	Doctoral Research and Dissertation	
Hours Subtotal		**43**
Electives		
Select 16 hours from the following:		16
FDSC 4123	Principles of Food Engineering	
FDSC 4243	Researching Consumer Food Preferences	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4333	Processed Meat	
FDSC 5102	Ethics and Professionalism in Animal and Food Science	
FDSC 5113	Internal Audit and Advanced HACCP	
FDSC 5120	Special Topics in Food Science	
FDSC 5143	Food Safety Modernization Act	
FDSC 5213	Advances in Meat Science	
FDSC 5233	Food Safety Audit Schemes	
FDSC 5333	Carcass Value Estimation Systems	
FDSC 5393	Issues in Food Science	
FDSC 5553	Interpreting Animal and Food Science Research	
Hours Subtotal		**16**
Other Requirements		
FDSC 5300	Food Science Seminar	1
Hours Subtotal		**1**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Sciences, DFS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Requirements		
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5653	The Law and Expert Evidence	3
FRNS 5743	Forensic Science Seminar	3
FRNS 6800	Critical Readings in Forensic Sciences	3
FRNS 6980	Doctoral Capstone Experience in Forensic Sciences	3
Electives		**45**
Select 45 hours from the following per faculty advisor/pathway:		
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5253	Forensic Casework Training	
FRNS 5263	Forensic Casework Experience	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5293	Violence in Forensic Settings	
FRNS 5323	Forensic Microbiology	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5583	Data and Statistics in Forensic Crime Analysis	
FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5693	Battlefield Forensics and the Global War on Terror	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences	
FRNS 5990	Special Topics in Forensic Sciences	
FRNS 6083	Advanced Forensic Statistics	
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering	
FRNS 6123	Advanced Fire Dynamics	
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	
FRNS 6183	Advanced Computer Fire Modeling	
FRNS 6243	Historical Evolution of Forensic Genetics	
FRNS 6263	Threat Assessment and Management of Violent Extremism	

FRNS 6273	Threat Assessment and Management of Workplace Violence
FRNS 6283	Threat Assessment and Management of Violence in Schools
FRNS 6293	Threat Assessment and Management of Stalking
FRNS 6400	Case Studies in Forensic Science
FRNS 6423	Advanced Blast Injuries and Effects
FRNS 6513	Advanced Methods in Forensic Genetics
FRNS 6663	Network Forensics
FRNS 6673	Mobile Device Forensics
FRNS 6683	Computer Forensics, Extractions and Analysis
FRNS 6713	Applied Forensic Theory
FRNS 6723	Research Design and Methods
FRNS 6733	Juvenile Issues in Forensic Sciences
FRNS 6743	Doctoral Forensic Science Theory
FRNS 6753	Doctoral Forensic Science Applications
FRNS 6833	Advanced Identification of Destructive Device Fuzing Systems
FRNS 6843	Advanced Destructive Device Circuit Exploitation
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations
FRNS 6903	Advanced Forensic Examination of Firearms
FRNS 6913	Advanced Toolmark Examination and Identification
FRNS 6923	RCIED - Advanced Analysis and Mitigation
FRNS 6933	Shooting Reconstruction for Examiners
FRNS 6990	Advanced Special Topics in Forensic Sciences
Total Hours	**60**

Graduate College Doctor of Forensic Sciences (DFS) Requirements

Learn more about Graduate College 2025-2026 Doctor of Forensic Sciences Degree Program Requirements (https://okstate-curr.courseleaf.com/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Sciences, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Degree Core		
FRNS 5743	Forensic Science Seminar	3
FRNS 6083	Advanced Forensic Statistics	3
FRNS 6723	Research Design and Methods	3
Per faculty advisor's recommendation, six hours of directed electives from electives list below.		6
Hours Subtotal		**15**
Dissertation [1]		
Fifteen to forty-five (15-45) hours from:		15-45
FRNS 6000	Doctoral Dissertation	
Hours Subtotal		**15-45**
Electives [1]		**0-30**
FRNS 5013	Survey of Forensic Sciences	
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5243	Population Genetics for the Forensic Scientist	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5293	Violence in Forensic Settings	
FRNS 5303	Forensic Investigation of Impaired Vehicle Operation	
FRNS 5323	Forensic Microbiology	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5583	Data and Statistics in Forensic Crime Analysis	
FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5653	The Law and Expert Evidence	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5693	Battlefield Forensics and the Global War on Terror	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	

FRNS 5990	Special Topics in Forensic Sciences (Maximum of 15 hours can apply to this degree.)
FRNS 6083	Advanced Forensic Statistics
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering
FRNS 6123	Advanced Fire Dynamics
FRNS 6163	Blast Modeling
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation
FRNS 6183	Advanced Computer Fire Modeling
FRNS 6243	Historical Evolution of Forensic Genetics
FRNS 6263	Threat Assessment and Management of Violent Extremism
FRNS 6273	Threat Assessment and Management of Workplace Violence
FRNS 6283	Threat Assessment and Management of Violence in Schools
FRNS 6293	Threat Assessment and Management of Stalking
FRNS 6400	Case Studies in Forensic Science (Maximum of 9 hours can apply to this degree.)
FRNS 6423	Advanced Blast Injuries and Effects
FRNS 6513	Advanced Methods in Forensic Genetics
FRNS 6663	Network Forensics
FRNS 6673	Mobile Device Forensics
FRNS 6683	Computer Forensics, Extractions and Analysis
FRNS 6713	Applied Forensic Theory
FRNS 6723	Research Design and Methods
FRNS 6733	Juvenile Issues in Forensic Sciences
FRNS 6800	Critical Readings in Forensic Sciences (Maximum of 3 hours can apply to this degree.)
FRNS 6833	Advanced Identification of Destructive Device Fuzing Systems
FRNS 6843	Advanced Destructive Device Circuit Exploitation
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations
FRNS 6903	Advanced Forensic Examination of Firearms
FRNS 6913	Advanced Toolmark Examination and Identification
FRNS 6923	RCIED - Advanced Analysis and Mitigation
FRNS 6933	Shooting Reconstruction for Examiners
FRNS 6970	Advanced Directed Readings in Forensic Sciences
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 9 hours can apply to this degree.)

Other courses not listed here, but deemed relevant to completion of dissertation research, may satisfy electives requirement with permission from student's Graduate Faculty Advisory Committee.

Admission to candidacy must occur at least six months prior to the date of the final dissertation defense.	
Hours Subtotal	**0-30**
Total Hours	**60**

[1]

Elective hours based on hours needed to supplement less Dissertation hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Geography, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Geography Core [1]		
GEOG 5001	Professional Development in Geography	1
GEOG 5413	History and Philosophy of Geography	3
GEOG 5403	Current Geographic Research	3
Choose 2 of the following:		6
GEOG 5303	Geographic Analysis I	
GEOG 5423	Geographic Renderings in Qualitative Methods	
GEOG 6313	Mixed Methods in Field Research	
Hours Subtotal		**13**
Elective Coursework inside Geography		
Select 15-27 hours focused in: Nature-Society Dynamics, Cultural-Historical Geography, or Geospatial Technologies.		
Elective Coursework outside Geography		
Select 9-15 hours of courses that complement the student's research track and align with the chosen specialty		
Dissertation (required minimum 15 hours) [1]		
GEOG 6000	Doctoral Dissertation Research	
Hours Subtotal		**47**
Total Hours		**60**

1

Combined coursework and dissertation hours to total 60 hours.

1

Combined coursework and dissertation hours to total 60 hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Geology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
GEOL 5243	Research Methods and Techniques in Geosciences	3
Two hours from:		2
GEOL 5300	Geology Colloquium	
Hours Subtotal		**5**
Additional coursework in GEOL		
Select 15 hours [1]		15
Hours Subtotal		**15**
Research and Dissertation		
Select 40 hours [2]		40
Hours Subtotal		**40**
Total Hours		**60**

1

Up to 12 hours of coursework may be taken outside of GEOL.

2

At the discretion of the advisory committee, up to 20 hours of dissertation hours may be replaced by additional course hours.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
GEOL 5243	Research Methods and Techniques in Geosciences	3
Two hours from:		2
GEOL 5300	Geology Colloquium	
Hours Subtotal		**5**
Additional coursework in GEOL		
Select 35 hours [1]		35
Hours Subtotal		**35**
Research and Dissertation		
Select 50 hours [2]		50
Hours Subtotal		**50**
Total Hours		**90**

1

Up to 12 hours of coursework may be taken outside of GEOL.

2

At the discretion of the advisory committee, up to 20 hours of dissertation hours may be replaced by additional course hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health and Human Performance, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Research Core		
HHP 6063	Grant Writing in Kinesiology, Applied Health, and Recreation	3
HHP 6020	Research Colloquium (1 credit hour, must take 3 times)	3
9 hours statistics (to be approved by committee on Plan of Study)		9
Hours Subtotal		**15**
Foundation Core		
Select one of the following options:		9
Applied Physiology		
HHP 5823	Applied Neuromuscular Physiology	
HHP 5873	Human Bioenergetics	
HHP 5843	Applied Biomechanics	
Practitioner Core		
HHP 5603	Principles of Performance Enhancement	
HHP 5853	Clin Ex Test & Prescript	
HHP 5873	Human Bioenergetics	
Hours Subtotal		**9**
Electives		
Select 6 hours as approved by committee on Plan of Study		6
Hours Subtotal		**6**
Dissertation		
HHP 6000	Doctoral Dissertation (24-30 hours as needed to total 60 hours for degree)	30
Hours Subtotal		**30**
Total Hours		**60**

Other Requirements

Graduation standard to receive a Ph.D. in HHP requires students to complete all coursework with a grade of C or better in every course with an overall GPA of 3.0 or higher; complete qualifying exams; and complete and defend dissertation research.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration, DHCA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 62

Code	Title	Hours
Core Courses		
HCA 6013	Dynamics of Healthcare Markets	3
HCA 6113	Healthcare Public Policy	3
HCA 6123	Advanced Clinical Operations Management	3
HCA 6223	Advanced Cases in Healthcare Leadership	3
HCA 6033	Contemporary Topics in Health Care Administration	3
HCA 6213	Cases in Healthcare Quality and Process Improvement	3
HCA 6053	Advanced Heathcare Law	3
HCA 6913	Graduate Seminar-Healthcare Payor Organizations	3
HCA 6933	Graduate Seminar-Healthcare Organization Development	3
HCA 6923	Graduate Seminar-Graduate Medical Education Programs	3
HCA 6943	Graduate Seminar in Public Health	3
Hours Subtotal		**33**
Electives		
HCA 5013	Survey of Health Care Administration	3
HCA 5093	Leadership Methods and Styles in Healthcare	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5052	Directed Readings in Health Care Administration	2
HCA 5063	Health Care Compliance	3
HCA 5043	Organizational Leadership and Development in Health Care	3
HCA 5023	Human Resources in Health Care and Public Administration	3
HCA 5083	The Financial Structure of Health Care Organizations	3
HCA 5223	Ethics in Healthcare	3
Hours Subtotal		**29**
Total Hours		**62**

Students admitted to the program with department approved aged graduate-level coursework are required to take two refresher courses in current theory and practice. Upon completion of these courses with a grade of B or better, students can count six hours from the leveling courses and up to 24 credit hours of approved aged graduate-level coursework towards the 30 hours of credit needed for the 62-credit hour doctoral degree program. The Plan of Study will include these six refresher course hours and up to 24 credit hours from their department approved aged coursework.

Learn more about Graduate College 2025-2026 Doctor of Healthcare Administration (DHCA) Degree Program Requirements (https://okstate-curr.courseleaf.com/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health, Leisure and Human Performance: Health and Human Performance, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Common Core		
3 hours Development of Curricula		
RMRT 6010	Independent Study in Recreation Management	3
3 hours Organization/Leadership		
RMRT 6763	Management in Health, Human Performance, and Recreation Management & Recreational Therapy Setting	3
3 hours Professional Ethics		
Professional Ethics course, per advisor approval		3
Hours Subtotal		**9**
Research Design and Statistics (Inquiry)		
Select 9 hours from the following:		9
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
Hours Subtotal		**9**
Option Hours		
Select 27 approved hours		27
Hours Subtotal		**27**
Dissertation		
Select 15 hours		15
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health, Leisure and Human Performance: Leisure Studies, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Coursework		
RMRT 6013	Ethical and Professional Issues in RMRT Higher Education	3
RMRT 6453	Recreation Management and Recreational Therapy Behavior	3
Select 6 hours that may include the following:		6
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
STAT 5033	Nonparametric Methods	
STAT 5043	Sample Survey Designs	
SCFD 6113	Theoretical Foundations of Inquiry	
Hours Subtotal		**12**
Independent Study Opportunities		
The doctoral advisory committee and the individual student will work together to select the most appropriate additional coursework for the Plan of Study. Students may wish to work one-on-one with a faculty member, or engage in an independent project in a field-based setting. These types of experiences are generally addressed within the independent study coursework, which allow flexibility in credit hours and academic assignments. These courses are generally established as contracts with a specific faculty member.		
RMRT 5020	Workshop in Recreation Management	
RMRT 5030	Field Problems in Recreation Management	
RMRT 6010	Independent Study in Recreation Management	
RMRT 6020	Recreation Management Research Colloquium	
Common Core		
RMRT 6723	Curriculum Development in Recreation Management, Recreational Therapy, and HHP	3
RMRT 6763	Management in Health, Human Performance, and Recreation Management & Recreational Therapy Setting	3
LEIS 6043	Ethical Issues in Health, Leisure, and Human Performance	3
Hours Subtotal		**9**
Dissertation		
Fifteen (15) hours from:		15
RMRT 6000	Doctoral Dissertation in Recreation Management and/or Recreational Therapy	
Hours Subtotal		**15**

Electives [1]		
Select 24 hours that may include the following:		24
ENGL 0003	Academic English for Graduate Students	
ENGL 5693	Research Writing for International Graduate Students	
HHP 5073	Psychological Aspects of Sport	
Recreational Therapy		
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5483	Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493	Recreational Therapy in Mental Health and Intellectual Disabilities	
CPSY 5173	Gerontological Counseling	
EPSY 5403	Issues in Adolescent Development	
EPSY 6043	Adult Development	
EPSY 6163	Emotion and Cognition	
HDFS 5283	Developmental Disabilities	
HDFS 5403	Foundations in Integrative Aging Studies	
HDFS 5411	Ethics and Aging	
Natural Resource Recreation Management		
RMRT 5403	Outdoor Recreation	
RMRT 6023	Special Topics in Recreation	
GEOL 5100	Problems in Hydrogeology	
POLS 5620	Seminar in Natural Resource Policy, Law and Administration	
ENVR 5303	Issues in Environmental Sustainability	
NREM 4053	Natural Resource Recreation	
GEOG 5150	Geography of Sport, Recreation and Leisure Seminar	
GEOG 5163	Resource Management in the National Parks	
Tourism and Hospitality		
GEOG 4143	Geography of Travel and Tourism	
HTM 5233	Convention and Special Event Management	
HTM 5513	Hospitality and Tourism Strategic Management	
HTM 6113	Hospitality and Tourism Education	
Higher Education		
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 6033	Analysis of Teaching	
EPSY 5463	Psychology of Learning	
EPSY 5663	Creativity for Teachers	
EPSY 6533	Human Motivation	
EDTC 5153	Computer-Based Instruction Development	
SCFD 5873	Culture, Society and Education	
Research and Statistics		
SOC 5213	Techniques of Population Analysis	
SOC 5273	Qualitative Research Methods	
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	

STAT 5053	Time Series Analysis
STAT 5063	Statistical Machine Learning with R
STAT 5123	Probability Theory
STAT 5223	Statistical Inference
STAT 5323	Theory of Linear Models I
STAT 5333	Theory of Linear Models II
STAT 5513	Multivariate Analysis
Management, Business and Entrepreneurship	
EEE 5113	Entrepreneurship and Venture Management
BCOM 5113	Seminar in Administrative Communication
MGMT 5113	Individual and Organizational Behavior
MGMT 5213	Seminar in Organizational Behavior
MGMT 5533	Leadership Challenges
MGMT 6313	Advanced Organizational Behavior
MKTG 5613	Seminar in Consumer Behavior
MBA 5261	Legal Issues in Business
POLS 5313	Public Management
POLS 5323	Urban Politics and Management
POLS 5333	Seminar in Public Personnel Administration
SOC 5663	Seminar in Race and Ethnicity
SOC 5763	Contemporary Organizational Theory
SOC 5813	Myths and Realities of Organizational Change
Counseling and Human Development	
EPSY 5103	Human Development in Psychology
CPSY 5553	Theories of Counseling
EPSY 5403	Issues in Adolescent Development
EPSY 6043	Adult Development
CPSY 5583	Group Process
CPSY 5473	Basic Counseling Skills
PSYC 6353	Psychology of Motivation
PSYC 6563	Advanced Social Psychology
HDFS 5213	Lifespan Development
HDFS 5413	Contemporary Perspectives in Adult Development and Aging
HDFS 5253	Theory and Research: Social and Emotional Development
Hours Subtotal	**24**
Total Hours	**60**

1

Depending on one's interests, the following courses and programs may be suitable for doctoral study. The list of courses is for illustration only - with permission of the advisory committee, a doctoral student may take coursework such as those below.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

History, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
HIST 6023	Historiography	3
Hours Subtotal		**3**
Seminar		
Select 36 approved hours, including at least 18 seminar hours that also includes 3 hours of research seminar. [1]		36
Hours Subtotal		**36**
Thesis		
16 hours of Thesis		16
Hours Subtotal		**16**
Additional Courses		
Approved courses needed to complete degree requirements.		5
Hours Subtotal		**5**
Total Hours		**60**

1

Students may include no more than six hours in HIST 6100 and six hours in HIST 6130 courses.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Overall Grade-Point-Average: 3.0 cumulative GPA
Total Hours: 72

Code	Title	Hours
Core Courses		
Human Developmental Science and Family Science		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 6113	Professional Development in HDFS	3
Thesis Equivalence		
HDFS 5110	Directed Study in HDFS [1]	6
Core Research Methods and Statistics Courses		
Research Methods		
HDFS 5123	Research Methods and Design in HDFS	3
HDFS 6133	Advanced Research Methods in Human Development and Family Science	3
Statistics/Analytic		
9 hours		9
PSYC 5304	Quantitative Methods in Psychology I (or equivalent)	
PSYC 5314	Quantitative Methods in Psychology II (or equivalent)	
HDFS 6143	Structural Equation Modeling for HDFS Applications	
Specialization Courses		
27 hours of Committee Designed Courses (to fit student's area of interest)		27
Dissertation Research		
Fifteen hours from:		15
HDFS 6000	Doctoral Dissertation	
Total Hours		**72**

1

6 hours 1st Year Research Project - can be waived if applicant has M.S. Thesis

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Sciences: Design and Merchandising, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 Hours

Code	Title	Hours
Core Courses [1]		
Coursework in DM or related content area		18-27
Coursework in Research Methods and Statistics		9-15
EDHS 6993	Graduate Seminar in Education and Human Sciences	3
Hours Subtotal		30-45
Dissertation [1]		
15-30 hours from:		15-30
DM 6000	Doctoral Dissertation (Offered for variable credit, 1-12 hours, maximum of 30 credit hours.)	
Hours Subtotal		15-30
Total Hours		**60**

1

Combined core and dissertation hours must total 60 hours.

General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor's degree, 60 credits beyond the Master's degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required

Non-Course Requirements

- Doctoral Candidacy
- Dissertation Defense
- Dissertation Submission/Approval

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Human Sciences: Human Development and Family Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
• Prerequisites: 3 hours of master's level research methods and 3 hours of master's level statistics, MS thesis or equivalent		
Human Development and Family Science		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 6113	Professional Development in HDFS	3
HDFS 6123	Risk and Resilience in Human Development and Family Science	3
Electives		
Select 9 hours, at least 3 from outside of HDFS recommended) from the courses below:		9
HDFS 5513	Issues in Family Science	
HDFS 6283	Seminar in Human Development	
HDFS 6583	Seminar in Family Science	
Other courses in HDFS or related areas, subjective to committee approval		
Specializations		
Select one of the following specializations:		3
Human Development Specialization		
HDFS 5253	Theory and Research: Social and Emotional Development	
Family Science Specialization		
HDFS 6523	Advanced Family Theory	
Research Methods and Statistics		
HDFS Methods		
HDFS 6133	Advanced Research Methods in Human Development and Family Science	3
HDFS 6190	Research Internship	6
Select two courses from one of the following sequences (6-8 hours): [1]		6-8
Sequence 1 (2 of the following)		
STAT 5023	Statistics for Experimenters II	
STAT 5063	Statistical Machine Learning with R	
STAT 5303	Experimental Designs	
Sequence 2		
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
Sequence 3 [1]		
PSYC 5304	Quantitative Methods in Psychology I [1]	
PSYC 5314	Quantitative Methods in Psychology II [1]	
Tracks		
Take two 3-hour courses in advanced statistics or qualitiative/ quantitative research methods (6 semester-hour minimum)		6
Qualitative Track		
HDFS 6143	Structural Equation Modeling for HDFS Applications	
HDFS 6153	Multilevel Modeling for HDFS Applications	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 6373	Program Evaluation	
Qualitative Track		
SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
SOC 5273	Qualitative Research Methods	
Dissertation (minimum 15 hours)		
Fifteen hours from:		15
HDFS 6000	Doctoral Dissertation	
Total Hours [1]		**60**

1

Total hours for degree will be 62 for students choosing Sequence 3.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Industrial Engineering and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
Select 27 hours of courses eligible for graduate plan of study with the approval of the advisory committee.		27
Eighteen hours from:		18
IEM 6000	Doctoral Research and Dissertation	
Hours Subtotal		**45**
Electives		
Select 12 hours of IEM graduate courses or research credits with the approval of the advisory committee. [1]		12
Hours Subtotal		**12**
Dissertation		
IEM 6903	IEM Doctoral Seminar	3
Hours Subtotal		**3**
Total Hours		**60**

1

At least 75 percent of total credit hours must be 5000/6000 level courses.

Additional Industrial Engineering and Management, PhD., Requirements

- Minimum 60 hours required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertations Submission/Approval

Integrative Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Seminar		
Select three hours of approved seminar		3
5000-level or 6000-level courses or seminars		
Select 25 approved hours to complete the graduate program Plan of Study		25
Dissertation		
Select 15 approved hours to complete the graduate program Plan of Study		15
Additional Courses		
Select a minimum of 17 approved additional hours to complete degree requirements.		17
Total Hours		**60**

Other Requirements

- Comprehensive Exam

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Language, Literacy, and Culture Education, EdS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 51

Code	Title	Hours
Common Program Core		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
Hours Subtotal		**9**
Research Methods		
Select 3 hours from courses such as these:		3
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
SCFD 6123	Qualitative Research I	
Hours Subtotal		**3**
Language, Literacy and Culture Specialization		
Select 24 hours from the following:		24
CIED 5473	Reading & Writing Difficulties	
CIED 5733	History of Reading	
CIED 6060	Advanced Special Topics in Literacy Education	
CIED 6880	Internship in Education (Literacy Teacher Education)	
CIED 6880	Internship in Education (Literacy Research Methodologies)	
LLCE 6083	Seminar in Writing Pedagogy	
LLCE 6093	English Language Learners: Theory, Research, Policy and Practice	
LLCE 6193	21st Century Literacies: Theory, Research, and Practice	
LLCE 6513	Staff Development in Literacy Education	
LLCE 6653	Issues and Trends in Adolescent Literacy	
LLCE 6673	Theory and Research on Teaching Contemporary Children's and YA Literature	
LLCE 6683	Language, Literacy and Culture	
Hours Subtotal		**24**
Electives		
Electives can be chosen from any of the LLCE specialization courses offered or from courses at the 5000- and 6000-levels in any related program area, as approved by the student's advisory committee.		15
Hours Subtotal		**15**
Total Hours		**51**

Other Requirements

- Students must complete all courses with a 3.0 GPA minimum.

Graduate College Specialist in Education (EdS) Requirements

Learn more about Graduate College 2025-2026 Specialist in Education (EdS) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Learning, Design and Technology, EdD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Common Core		
EDTC 5203	Foundations of Educational Technologies	3
EDTC 6910	Practicum	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6983	Diversity and Equity Issues in Education	3
Hours Subtotal		**12**
Research		
Select 12 hours from the following:		12
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDTC 5793	Design-Based Research	
Hours Subtotal		**12**
Specialization		
Select 21 hours from the following:		21
EDTC 5123	Academic Writing in the Learning Sciences	
EDTC 5783	Learning and Teaching with Mobile Devices	
EDTC 6153	Advanced Computer-Based Instructional Development	
EDTC 6283	Performance Improvement Technology	
EDTC 6333	Human Computer Interaction	
EDTC 6423	Trends and Issues in Educational Technology	
EDTC 6553	Media and Learning in Educational Technology	
EDTC 6613	Instructional Systems Design	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
EPSY 6533	Human Motivation	
Hours Subtotal		**21**
Dissertation		
EDTC 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**60**

Other Requirements

- Annual review of student progress
- Successful defense of completed qualifying exam
- Successful defense of completed dissertation research
- Present at a professional conference and submit an article for publication

Graduate College Doctor of Education (EdD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Education (EdD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Learning, Design and Technology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Common Core		
EDTC 5203	Foundations of Educational Technologies	3
EDTC 6910	Practicum	3
SCFD 6113	Theoretical Foundations of Inquiry	3
SCFD 6983	Diversity and Equity Issues in Education	3
Hours Subtotal		**12**
Research		
Select 12 hours from the following:		12
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II	
CIED 6253	Designing and Conducting Mixed Methods Research	
EDTC 5793	Design-Based Research	
Hours Subtotal		**12**
Specialization		
Select 21 hours from the following:		21
EDTC 5123	Academic Writing in the Learning Sciences	
EDTC 5783	Learning and Teaching with Mobile Devices	
EDTC 6153	Advanced Computer-Based Instructional Development	
EDTC 6283	Performance Improvement Technology	
EDTC 6333	Human Computer Interaction	
EDTC 6423	Trends and Issues in Educational Technology	
EDTC 6553	Media and Learning in Educational Technology	
EDTC 6613	Instructional Systems Design	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
EPSY 6533	Human Motivation	
Hours Subtotal		**21**
Dissertation		
EDTC 6000	Doctoral Dissertation	15
Hours Subtotal		**15**
Total Hours		**60**

Other Requirements

- Annual review of student progress
- Successful defense of completed qualifying exam
- Successful defense of completed dissertation research
- Present at a professional conference and submit an article for publication

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Materials Science and Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 72 (Group I - Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 6010	Materials Science and Engineering Seminar for PhD Students	0
Hours Subtotal		**9**
Electives		
Student must complete 27 hours of MSE or other approved 5000- and 6000-level courses offered at OSU from preselected list of MSE, CHE, ECEN, or MAE courses, or additional courses in engineering or science per committee approval.		27
Hours Subtotal		**27**
Dissertation		
Thirty-six hours from:		36
MSE 6000	Doctoral Dissertation	
Hours Subtotal		**36**
Total Hours		**72**

Total Hours: 60 (Group II - Beyond the Master's Degree from Outside OSU)

Code	Title	Hours
Required Courses		
Select from the following:		9
MSE 5013	Advanced Thermodynamics of Materials	
MSE 5023	Diffusion and Kinetics	
MSE 5043	Advanced Materials Characterization	
MSE 6010	Materials Science and Engineering Seminar for PhD Students	
Hours Subtotal		**9**
Electives		
Select 21 hours of elective MSE or other approved 5000- and 6000-level courses offered at OSU.		21
From pre-selected list of MSE, CHE, ECEN, or MAE courses, or additional courses in engineering or science per committee approval.		
Hours Subtotal		**21**
Dissertation		
Thirty hours from:		30
MSE 6000	Doctoral Dissertation	
Total Hours		**60**

Total Hours: 60 (Group III - Beyond the Master's Degree from OSU)

Code	Title	Hours
Required Courses		
Group III student must meet the Required Course requirements of MSE 5000- and 6000-level courses offered at OSU. The student in this Group III should have already completed the three required courses for the PhD program during his/her MS degree in Materials Science and Engineering at OSU. If any of the remaining Required Courses were taken as an Elective by the student during his/her MS degree, they will not be required to take them again. However, if the student had not completed any of the remaining Required Courses during his/her MS degree in Materials Science and Engineering at OSU, the student must take them to complete the Required Course requirements for PhD degree in MSE at OSU.		
Select from the following:		9
MSE 5013	Advanced Thermodynamics of Materials	
MSE 5023	Diffusion and Kinetics	
MSE 5043	Advanced Materials Characterization	
MSE 6010	Materials Science and Engineering Seminar for PhD Students	
Electives		
Group III student must complete a minimum of 15 hours and a maximum of 30 hours of required and elective coursework for his/her PhD degree in MSE at OSU. This includes the hours for any Required Courses taken after enrollment in the MSE PhD program at OSU. Elective Courses taken by the student at OSU which were used toward fulfilling his/her MS degree requirements in MSE at OSU, will not be considered toward his/her PhD degree in MSE. The student will be allowed to use a maximum of 15 hours of coursework toward his/her PhD degree in MSE at OSU, i.e., the hours for core courses for the MS degree program.		15-30
Dissertation		
Thirty to forty-five (30-45) hours from:		30-45
MSE 6000	Doctoral Dissertation	
Total Hours		**60**

Additional Materials Science and Engineering, PhD, Requirements

- Upon approval by the committee, students may choose other appropriate elective courses from engineering, physics and chemistry departments.
- Requirement for taking the “Required” courses for Group III Ph.D. students will be waived if they have taken that course while doing their M.S. degree at OSU. The same course however, cannot be counted towards fulfilling the credit hour requirements for two degrees (M.S. and Ph.D.) at OSU. The student will be required to fulfill the remaining coursework credit hour requirement for the Ph.D. degree by taking “Elective” courses.
- Students entering the Ph.D. program without an undergraduate/graduate degree in Materials Science and Engineering or related degree will be required to complete the ENSC 3313 Materials Science (undergraduate course) with an “A” grade or better in their first year at OSU. This will not be counted towards their degree requirements.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General

Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mathematics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Core Courses		
Select 15 hours from one of the following tracks:		15
Applied		
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
Pure		
MATH 5023	Advanced Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
Mathematics Education		
MATH 5023	Advanced Linear Algebra	
Select 9 hours from the following:		
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
Select one of the following:		
STAT 5023	Statistics for Experimenters II	
STAT 5063	Statistical Machine Learning with R	
Hours Subtotal		**15**
Additional Math Courses		
Select 12 hours from track used for core courses.		12
Applied		
In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).		
Pure		
In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).		
Mathematics Education		
MATH 5913	Introduction to Research in Mathematics Education	
MATH 6923	Research in Undergraduate Mathematics Education	
Select 6 hours from the following:		
SCFD 6113	Theoretical Foundations of Inquiry	
SCFD 6123	Qualitative Research I	
EPSY 5463	Psychology of Learning	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		**12**
Preliminary Research Project		
MATH 6010	Advanced Seminar in Mathematics (Reading course with advisor)	3
MATH 6090	Doctoral Research Project	3
Hours Subtotal		**6**
Additional Graduate Courses		
Combination of electives and dissertation hours to total 27 hours.		27
Electives		
Select 3-12 hours.		
Dissertation		
Select 15-24 hours.		
Hours Subtotal		**27**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mechanical and Aerospace Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)[1]

Code	Title	Hours
Coursework		
Select 24 -30 hours of 5000- and 6000-level coursework beyond the Master's degree.		24-30
Research		
24-30 hours from:		24-30
MAE 6000	Doctoral Dissertation	
Other Requirements		
MAE 6010	Advanced Study [2]	6
Total Hours		**60**

1

With the approval of the student's advisory committee, up to 9 credit hours of previous graduate coursework may be transferred to satisfy the program's coursework requirements. Transfer credits must have grades of "B" or better and be less than ten years old at the time of the student's graduation.

2

To be taken the same semester as the Preliminary Examination in order to be assigned a letter grade.

Total Hours: 75 (Beyond the Bachelor's Degree)

Code	Title	Hours
Coursework		
Select 39-45 hours of 5000- and 6000-level coursework beyond the Bachelor's degree.		39-45
Research		
24-30 hours from:		24-30
MAE 6000	Doctoral Dissertation	
Other Requirements		
MAE 6010	Advanced Study [2]	6
Total Hours		**75**

1

With the approval of the student's advisory committee, up to 9 credit hours of previous graduate coursework may be transferred to satisfy the program's coursework requirements. Transfer credits must have grades of "B" or better and be less than ten years old at the time of the student's graduation.

2

To be taken the same semester as the Preliminary Examination in order to be assigned a letter grade.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mechanical and Aerospace Engineering: Unmanned Aerial Systems, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)[1]

Code	Title	Hours
UAS Core Courses		
Select 12 hours from the following:		12
MAE 5083	Engineering Acoustics	
MAE 5233	Advanced Fluid Dynamics I	
MAE 5313	Autopilot Design and Test	
MAE 5343	Advanced Aero Propulsion and Power	
MAE 5913	Advanced Aerodynamics	
MAE 5923	Guidance and Control of Aerospace Vehicles	
MAE 5943	Unsteady Aerodynamics and Aeroacoustics	
MAE 5963	Unmanned Aerial Systems Design and Analysis	
MAE 5973	Unmanned Aerial Systems Propulsion	
MAE 5983	Aircraft Certification and Test	
MAE 6313	Atmospheric Flight Control	
Hours Subtotal		**12**
MAE Electives [1]		
Select 9 hours (Any MAE graduate-level course supporting UAS research will be allowed with permission of the student's faculty advisory committee):		9
Technical Electives		
Select 9 hours (Any graduate-level course will be allowed with permission of the student's faculty advisory committee):		9
Hours Subtotal		**18**
Research [1]		
MAE 6010	Advanced Study [2]	6
Twenty-four hours from:		24
MAE 6000	Doctoral Dissertation	
Hours Subtotal		**30**
Total Hours		**60**

1

With the approval of the student's advisory committee, up to 9 credit hours of previous graduate coursework may be transferred to satisfy the program's coursework requirements. Transfer credits must have grades of "B" or better and be less than ten years old at the time of the student's graduation.

2

To be taken the same semester as the Preliminary Examination in order to be assigned a letter grade.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Microbiology, Cell and Molecular Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Coursework		
Select 11 hours of Microbiology (MICR) 5000- or 6000-level courses (non-zero ending).		11
Select 6 hours of any 5000- or 6000-level courses (non-zero ending)		6
MICR 5160	Seminar	1
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Dissertation		
Forty hours from:		40
MICR 6000	Dissertation	
Hours Subtotal		**60**

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Coursework		
Select 14 hours of Microbiology (MICR) 5000- or 6000-level courses (non-zero ending).		14
Select 25 hours of any 5000- or 6000-level courses (non-zero ending)		25
Two hours from:		2
MICR 5160	Seminar	
Four hours from:		4
MICR 6120	Recent Advances in Microbiology	
Dissertation		
Forty-five hours from:		45
MICR 6000	Dissertation	
Hours Subtotal		**90**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020. [1]		45
Hours Subtotal		**45**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		**15**
Total Hours		**60**

1

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020. [2]		66
Hours Subtotal		**66**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		**24**
Total Hours		**90**

2

Combined courses plus dissertation must be 90 total hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020. [1]		45
Hours Subtotal		**45**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		**15**
Total Hours		**60**

1

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020. [2]		66
Hours Subtotal		**66**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		**24**
Total Hours		**90**

2

Combined courses plus dissertation must be 90 total hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Forest Resources, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020. [1]		45
Hours Subtotal		**45**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		**15**
Total Hours		**60**

1

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020. [2]		66
Hours Subtotal		**66**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		**24**
Total Hours		**90**

2

Combined courses plus dissertation must be 90 total hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Rangeland Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020. [1]		45
Hours Subtotal		**45**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		**15**
Total Hours		**60**

1

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020. [2]		66
Hours Subtotal		**66**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		**24**
Total Hours		**90**

2

Combined courses plus dissertation must be 90 total hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Wildlife Ecology and Management, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 45 hours of approved 5000- or 6000-level or other courses approved for graduate credit courses and one hour of NREM 5020. [1]		45
Hours Subtotal		**45**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 45 hours.)	15
Hours Subtotal		**15**
Total Hours		**60**

1

Combined courses plus dissertation must be between 60-66 total hours. Hours could reach a maximum of 66 total hours depending on the courses selected.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Select a minimum of 66 hours of approved 5000- or 6000-level or other courses approved for graduate credit and one hour of NREM 5020. [2]		66
Hours Subtotal		**66**
Dissertation		
NREM 6000	Doctoral Dissertation (Maximum of 48 hours.)	24
Hours Subtotal		**24**
Total Hours		**90**

2

Combined courses plus dissertation must be 90 total hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Nutritional Sciences, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Degree Program Requirements		
Nutritional Sciences		
Required Core Courses		18-30
NSCI 5033	Macronutrients in Human Nutrition	
NSCI 5043	Micronutrients in Human Nutrition	
NSCI 6960	Seminar: Emerging Topics in Nutrition (Taken twice before graduation.)	
Select one of the following:		
NSCI 6451	Advanced Grant Writing in Nutritional Sciences	
NSCI 5103	Grant Writing for the Professional	
GRAD 5891	Special Topics in Grantmanship	
AGED 5203	Grant Seeking	
Or equivalent		
Suggested courses to complete required core: (p. 3034)		
Human Sciences		
Required Core Courses		3
EDHS 6993	Graduate Seminar in Education and Human Sciences	
Research Support Courses		
Required Core Courses		18-30
Select 3 hours from the following:		
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	
Or equivalent		
Select 3 hours from the following		
STAT 5023	Statistics for Experimenters II	
STAT 5083	Statistics for Biomedical Researchers	
REMS 6003	Analyses of Variance	
Or equivalent		
The remaining 12-24 credits of coursework should consist of courses in intermediate and advanced statistics, advanced research methodology and advanced research methods:		
Select from Electives to complete coursework (courses from this list used for Nutritional Sciences core electives may not be selected): (p. 3034)		
Dissertation		
Required Core Requirement		15-30
NSCI 6000	Doctoral Dissertation	
Total Hours		**60**

Suggested Courses and/or Electives

Code	Title	Hours
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	3
NSCI 5133	Advanced Nutrition for Exercise and Sport	3
NSCI 5363	Maternal and Child Nutrition	3
NSCI 5373	Childhood Nutrition	3
NSCI 5393	Nutrition and Aging	3
NSCI 5553	Global Nutrition and Food Security	3
NSCI 5563	Nutritional Assessment	3
NSCI 5613	Nutrition Education and Behavior Change	3
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5713	Public Health Nutrition and Food Policy	3
NSCI 5743	Advanced Laboratory Techniques in Nutritional Sciences	3
NSCI 5870	Problems in Nutritional Science	1-4
NSCI 6033	Functional Foods and Phytochemicals	3
NSCI 6870	Independent Study in Nutritional Sciences	1-3
BIOC 4113	Molecular Biology	3
BIOC 5102	Molecular Genetics	2
BIOC 5824	Biochemical Laboratory Methods	4
BIOC 6763	Nucleic Acids and Protein Synthesis	3
BIOC 6773	Protein Structure and Enzyme Function	3
BIOC 6783	Biomembranes and Bioenergetics	3
BIOL 4215	Mammalian Physiology	5
BIOL 5283	Endocrinology	3
CPSY 5173	Gerontological Counseling	3
CPSY 5473	Basic Counseling Skills	3
CPSY 5503	Multicultural Counseling	3
HDFS 5413	Contemporary Perspectives in Adult Development and Aging	3
HDFS 5423	Research Perspectives in Gerontology	3
HDFS 5433	Theories of Aging	3
HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
HLTH 5113	Psychological Aspects of Health	3
HLTH 5323	General Epidemiology	3
HLTH 5453	Cultural Issues In Health	3
MGMT 5113	Individual and Organizational Behavior	3
REMS 5013	Research Design and Methodology	3
REMS 5963	Computer Applications in Nonparametric Data Analyses	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6033	Factor Analysis in Behavioral Research	3
REMS 6373	Program Evaluation	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
SCFD 5873	Culture, Society and Education	3
SCFD 5913	Introduction to Qualitative Inquiry	3
SCFD 6123	Qualitative Research I	3
SCFD 6193	Qualitative Research II	3
SOC 5213	Techniques of Population Analysis	3
SOC 5273	Qualitative Research Methods	3
SOC 5333	Global Population and Social Problems	3
STAT 4043	Applied Regression Analysis	3
STAT 5033	Nonparametric Methods	3

STAT 5043	Sample Survey Designs	3
STAT 5053	Time Series Analysis	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5073	Categorical Data Analysis	3
STAT 5091	Sas Programming	1
STAT 5303	Experimental Designs	3

Total Hours: 80 (Beyond the Bachelor's Degree)

Code	Title	Hours
Students accepted into the 80-credit PhD option will first complete all requirements for the MS degree in Nutritional Sciences (Nutrition thesis or Dietetics Research non-thesis options). Students will earn the MS in Nutritional Sciences upon successful completion of the thesis, as appropriate, and the first 30 credits.		30
Students will then complete a minimum of 50 credits beyond the MS degree including:		50
A minimum of 15 and maximum of 30 credits of dissertation coursework (NSCI 6000)		
Complete a minimum of 20 hours of coursework including at least one graduate course in NSCI that is not listed below. These 20 hours will include:		
NSCI 6960	Seminar: Emerging Topics in Nutrition (Taken 2 times before graduation.)	
NSCI 6451	Advanced Grant Writing in Nutritional Sciences (or equivalent)	
EDHS 6993	Graduate Seminar in Education and Human Sciences	
Three courses to develop an area of specialization		
Select one of the following:		
STAT 5023	Statistics for Experimenters II	
STAT 5083	Statistics for Biomedical Researchers	
REMS 6003	Analyses of Variance	
Or equivalent		
Total Hours		**80**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Petroleum Engineering, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 68

Code	Title	Hours
Degree Program Core:		
PETE 5313	Advanced Drilling Modeling and Simulation	3
PETE 5333	Advanced Production and Flow Assurance	3
PETE 5373	Advanced Well Stimulation	3
PETE 6813	Research Methods in Petroleum Engineering	3
Hours Subtotal		**12**
Three hours from:		3
PETE 6010	Petroleum Engineering Seminar	
Degree Progrram Guided Electives:		**21**
Petroleum Engineering (CEAT)		
PETE 5210	Special Topics in Petroleum Engineering	
PETE 5303	Petroleum Geomechanics	
PETE 5343	Advanced Reservoir Engineering	
PETE 5363	Petroleum Economics and Investments	
PETE 5413	Advanced Well Design and Operational Analysis	
PETE 5513	Directional Drilling	
PETE 5613	Advanced Well Completions	
PETE 5990	Special Problems in Petroleum Engineering [1]	
PETE 6110	Advanced Topics in Petroleum Engineering	
Chemical Engineering (CEAT)		
CHE 5123	Advanced Chemical Reaction Engineering	
CHE 5373	Process Simulation	
CHE 5733	Neural Networks	
CHE 5743	Chemical Engineering Process Modeling	
Geology (CAS)		
GEOL 5023	Petroleum Geology	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5483	Petroleum Water Management	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6503	Rock Fractures	
Mathematics (CAS)		
MATH 5063	Calculus of Several Variables	
MATH 5023	Advanced Linear Algebra	
MATH 5233	Partial Differential Equations	
MATH 5263	Introduction to Partial Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
Statistics (CAS)		
STAT 5013	Statistics for Experimenters I	
Mechanical Engineering (CEAT)		
MAE 5233	Advanced Fluid Dynamics I	
MAE 5253	Multiphase Flow	
MAE 5563	Finite Element Methods	
MAE 5573	Continuum Mechanics	
Hours Subtotal		**24**
PETE 6000	Doctoral Thesis [2]	32
Total Hours		**68**

1 A maximum of 3 credit hours of PETE 5990 may be counted toward the guided electives requirement.

2 6 hours of PETE 5000 may be substituted for PETE 6000 or 6 Hours of other coursework may be substituted for PETE 6000 at the discretion of Petroleum Graduate Coordinator.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Photonics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Course Requirements [1]		
Select 3 hours from Electromagnetics:		3
PHYS 5313	Electromagnetic Theory	
ECEN 5613	Electromagnetic Theory	
PHYS 4813	Electromagnetic Radiation	
or PHYS 5110	Seminar	
Select 3 hours from Lasers:		3
PHYS 5163	Lasers	
ECEN 4843	Design of Lasers and Systems	
or ECEN 5080	Fundamental Topics	
Select 6 hours from Optics:		6
ECEN 4823	Design of Optical Systems	
or ECEN 5080	Fundamental Topics	
PHYS 5123	Geometrical Optics	
or ECEN 5803	Geometrical Optics	
PHYS 5303	Physical Optics	
or ECEN 5823	Physical Optics	
Select 3 hours from Quantum Mechanics:		3
PHYS 5613	Quantum Mechanics I	
PHYS 4513	Introductory Quantum Mechanics	
or PHYS 5110	Seminar	
Select 12 Hours from Advanced Topics (Optoelectronics, Spectroscopy, Quantum and Nonlinear Optics, Solid State, Photonics Systems, Electromagnetics, Bio/Nano Photonics, and Additional Laboratory Courses		12
ECEN 5853	Ultrafast Optoelectronics	
PHYS 5133	Laser Spectroscopy	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
PHYS 5663	Solid State Physics I	
PHYS 6243	Semiconductors I	
PHYS 4263	Introduction to Solid State Physics	
or PHYS 5110	Seminar	
ECEN 5333	Semiconductor Devices	
ECEN 5833	Fiber-Optic Communication Systems	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
PHYS 4313	Molecular Biophysics [2]	
or PHYS 5110	Seminar	
ECEN 5843	Microelectronic Fabrication	
Select at least one additional elective course.		3
Hours Subtotal		**30**
Dissertation [1]		
Thirty hours from:		30
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		**30**
Total Hours		**60**

1

Combined Coursework and Dissertation to total 60 hours beyond the Master's Degree and 72 hours beyond the Bachelor's Degree. Distribution of hours may be varied from above

2

For students pursuing the bio/nano photonics option, additional courses from departments other than ECEN and PHYS may be included.

Total Hours: 72 (Beyond the Bachelor's Degree)

Code	Title	Hours
Course Requirements [1]		
Select 3 hours from Electromagnetics:		3
PHYS 5313	Electromagnetic Theory	
ECEN 5613	Electromagnetic Theory	
PHYS 4813	Electromagnetic Radiation	
or PHYS 5110	Seminar	
Select 3 hours from Lasers:		3
PHYS 5163	Lasers	
ECEN 4843	Design of Lasers and Systems	
or ECEN 5080	Fundamental Topics	
Select 6 hours from Optics:		6
ECEN 4823	Design of Optical Systems	
or ECEN 5080	Fundamental Topics	
PHYS 5123	Geometrical Optics	
or ECEN 5803	Geometrical Optics	
PHYS 5303	Physical Optics	
or ECEN 5823	Physical Optics	
Select 3 hours from Quantum Mechanics:		3
PHYS 5613	Quantum Mechanics I	
PHYS 4513	Introductory Quantum Mechanics	
or PHYS 5110	Seminar	
Select 12 Hours from Advanced Topics (Optoelectronics, Spectroscopy, Quantum and Nonlinear Optics, Solid State, Photonics Systems, Electromagnetics, Bio/Nano Photonics, and Additional Laboratory Courses		12
ECEN 5853	Ultrafast Optoelectronics	
PHYS 5133	Laser Spectroscopy	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
PHYS 5663	Solid State Physics I	
PHYS 6243	Semiconductors I	
PHYS 4263	Introduction to Solid State Physics	
or PHYS 5110	Seminar	
ECEN 5333	Semiconductor Devices	
ECEN 5833	Fiber-Optic Communication Systems	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
PHYS 4313	Molecular Biophysics [2]	
or PHYS 5110	Seminar	
ECEN 5843	Microelectronic Fabrication	

Select at least one additional elective course.		3
Hours Subtotal		**30**
Dissertation [1]		
Forty-two hours from:		42
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		**42**
Total Hours		**72**

1

Combined Coursework and Dissertation to total 60 hours beyond the Master's Degree and 72 hours beyond the Bachelor's Degree. Distribution of hours may be varied from above.

2

For students pursuing the bio/nano photonics option, additional courses from departments other than ECEN and PHYS may be included.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Physics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses [1,2]		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5213	Statistical Mechanics	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
PHYS 6313	Quantum Mechanics II	3
Hours Subtotal		**21**
Electives		
Select a minimum of 9 hours of Physics (PHYS) 5000- or 6000-level courses:		9
Hours Subtotal		**9**
Research [2]		
Thirty hours from:		30
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		**30**
Total Hours		**60**

1

Up to 15 hours may be waived and replaced by research hours.

2

Combined required and research hours should total 51 hours.

Total Hours: 72 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5213	Statistical Mechanics	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
PHYS 6313	Quantum Mechanics II	3
Hours Subtotal		**21**
Electives [2]		
Select a minimum of 9 hours of Physics (PHYS) 5000- or 6000-level courses:		9
Hours Subtotal		**9**
Research [2]		
Forty-two hours from:		42
PHYS 6000	Doctoral Dissertation Research	
Hours Subtotal		**42**
Total Hours		**72**

2

Combined elective and research hours should total 51 hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Plant Biology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 6000	Doctoral Research	15
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		**18**
Electives		
Select 42 graduate credit hours at the 5000 level or higher from the following: BIOC, BIOL, CHEM, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT		42
Comprehensive Exams Required		
Research Proposal Defense Required		
Hours Subtotal		**42**
Total Hours		**60**

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 6000	Doctoral Research	15
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		**18**
Electives		
Select 72 graduate credit hours at the 5000 level or higher from the following: BIOC, BIOL, CHEM, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT		72
Comprehensive Exams Required		
Research Proposal Defense Required		
Hours Subtotal		**72**
Total Hours		**90**

Additional Plant Biology, PhD, Requirements

- Minimum grade of "B" in all courses

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Plant Pathology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Required Courses		
Introductory (one is required if not previously taken)		
PLP 3343	Principles of Plant Pathology (Introductory - no graduate credit)	
ENPP 5343	Principles of Plant Pathology	3
Pathogens courses		
ENPP 5104	Mycology	4
PLP 5724	Physiology of Host-Pathogen Interactions	4
Additional Pathogen courses		
Select 7-8 hours, depending on advisory committee decision.		7-8
PLP 5003	Plant Nematology	
ENPP 5014	Plant Virology	
ENPP 5304	Phytobacteriology	
Concepts courses [1]		
Select 6-7 hours, depending on advisory committee decision.		6-7
ENPP 5523	Integrated Management of Insect Pests and Pathogens	
PLP 5613	Host Plant Resistance	
PLP 6303	Soilborne Diseases of Plants	
Professionalism		
ENPP 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each)	2
Optional if two semesters of PLP 5870 were previously completed during an OSU ENTO-PLP master's degree program.		
Recommended course:		
ENPP 5992	Career Skills and Professionalism for Scientists	
Plus additional courses to complete the graduate program and Plan of Study.		33
Total Hours		**60**

1

Completion of PLP 5524 or PLP 5613 is required for the degree program.

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
Introductory (one is required if not previously taken)		
PLP 3343	Principles of Plant Pathology (Introductory - no graduate credit)	
ENPP 5343	Principles of Plant Pathology	3
Pathogens courses		
ENPP 5104	Mycology	4
PLP 5724	Physiology of Host-Pathogen Interactions	4
Additional Pathogen courses		
Select 7-8 hours, depending on advisory committee decision.		7-8
PLP 5003	Plant Nematology	
ENPP 5014	Plant Virology	
ENPP 5304	Phytobacteriology	
Concepts courses [1]		
Select 6-7 hours, depending on advisory committee decision.		6-7
ENPP 5523	Integrated Management of Insect Pests and Pathogens	
PLP 5613	Host Plant Resistance	
PLP 6303	Soilborne Diseases of Plants	
Professionalism		
ENPP 5870	Scientific Presentations (Both fall and spring semesters - 1 credit hour each)	2
Optional if two semesters of PLP 5870 were previously completed during an OSU ENTO-PLP master's degree program.		
Recommended course:		
ENPP 5992	Career Skills and Professionalism for Scientists	
Plus additional courses to complete the graduate program and Plan of Study.		63
Total Hours		**90**

1

Completion of PLP 5524 or PLP 5613 is required for the degree program.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Psychology: Clinical, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 106 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Courses		
Select three courses:		9
PSYC 5823	Cognitive Processes	
PSYC 5813	Lifespan Cognitive Developmental Psychology	
PSYC 6483	Neurobiological Psychology	
PSYC 6253	Seminar in Human Development	
PSYC 6563	Advanced Social Psychology	
PSYC 6613	Experimental Learning Theories	
PSYC 5304	Quantitative Methods in Psychology I	4
PSYC 5314	Quantitative Methods in Psychology II	4
PSYC 6223	Research Design	3
PSYC 5660	Teaching Practicum	2
PSYC 5000	Thesis (minimum of 6 hours)	6
PSYC 6000	Dissertation (minimum of 15 hours)	15
3 Hours Quantitative Requirement		3
3 Hours History Requirement		3
Fulfilled by PSYC 4493, outside course, or waived by CTC if psychology was major or minor as undergraduate.		
Hours Subtotal		**49**
Clinical Core Requirements		
PSYC 5113	Psychopathology	3
PSYC 5333	Systems of Psychotherapy	3
PSYC 5153	Cognitive Assessment	3
PSYC 6753	Assessment of Personality	3
PSYC 6083	Principles of Evidence-Based Psychological Treatment	3
PSYC 6133	Ethnic and Cultural Diversity in Psychotherapy	3
PSYC 6650	Practicum (continuously enrolled 1 hour for a minimum of 2 years)	6
PSYC 6990	Advanced Internship in Clinical Psychology (1 hour for three semesters)	3
Eighteen hours from:		18
PSYC 6640	Clinical Practicum	
Hours Subtotal		**45**
Subspecialty Training		
Select 12 from one of the following subspecialties:		12
Adult Psychopathology		
Student must take four elective courses chosen in consultation with program advisor		
Clinical Child Psychology		
The following courses should be taken by students interested in the Clinical Child Psychology subspecialty. Students must take two additional elective courses, to be determined by the student and his or her advisor.		
PSYC 6173	Child Psychopathology and Treatment	
PSYC 6723	Child Diagnostic Methods	
Health Psychology		
The following courses should be taken by students interested in the Health Psychology subspecialty. Student must take two additional elective courses, to be determined by the student and his or her advisor.		
PSYC 6443	Behavioral Medicine	
PSYC 6143	The Psychology of Substance Abuse	
Pediatric Psychology		
The followng courses should be taken by students interested in the Pediatric Psychology subspecialty.		
PSYC 6173	Child Psychopathology and Treatment	
PSYC 6723	Child Diagnostic Methods	
PSYC 6523	Family Treatment Methods	
PSYC 6453	Pediatric Psychology	
Hours Subtotal		**12**
Total Hours		**106**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Psychology: Experimental Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Departmental Core Courses		
PSYC 5304	Quantitative Methods in Psychology I	4
PSYC 5314	Quantitative Methods in Psychology II	4
PSYC 6223	Research Design	3
PSYC 5660	Teaching Practicum	1-2
PSYC 5000	Thesis	6
PSYC 6000	Dissertation	15
Select 3 hours in additional quantitative electives (within or outside department)		3
Select 9 hours from the following:		9
PSYC 5823	Cognitive Processes	
PSYC 6483	Neurobiological Psychology	
PSYC 6563	Advanced Social Psychology	
PSYC 6613	Experimental Learning Theories	
PSYC 5913	Lifespan Social Developmental Psychology	
Hours Subtotal		**45-46**
Experimental Core Courses		
Select 9 hours from the following:		9
Cognitive		
PSYC 4223	Decision Making and Problem Solving	
PSYC 5620	Seminar in Psychology (Stereotyping and Prejudice in Social Cognition)	
PSYC 5823	Cognitive Processes	
PSYC 6393	Language Development	
Comparative-Neurobiology		
PSYC 5620	Seminar in Psychology (Evolutionary Social Sciences)	
PSYC 6483	Neurobiological Psychology	
PSYC 6583	Developmental Psychobiology	
PSYC 6613	Experimental Learning Theories	
Developmental Psychology		
PSYC 4243	Psychology of Aging	
PSYC 5813	Lifespan Cognitive Developmental Psychology	
PSYC 5913	Lifespan Social Developmental Psychology	
PSYC 6583	Developmental Psychobiology	
PSYC 6393	Language Development	
HDFS 5243	Infant and Early Childhood Development and Attachment	
HDFS 5433	Theories of Aging	
HDFS 5583	Human Sexuality	
Social-Personality Track		
PSYC 4333	Personality	
PSYC 5620	Seminar in Psychology (Stereotyping and Prejudice in Social Cognition)	
PSYC 5620	Seminar in Psychology (Evolutionary Social Sciences)	
PSYC 5620	Seminar in Psychology	
PSYC 6393	Language Development	
PSYC 6563	Advanced Social Psychology	
Hours Subtotal		**9**
Additional Hours May Be Taken From the Following:		
Hours needed to reach 80 hours		35-36
PSYC 5380	Research	
PSYC 6000	Dissertation	
Hours Subtotal		**35-36**
Total Hours		**90**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

School Administration, EdD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 64

Code	Title	Hours
Degree Core		
EDLE 6483	School Leadership, Culture and Ethics	3
EDLE 6493	School Improvement/Reform	3
EDLE 6633	School Leadership and Community Collaboration	3
EDLE 6393	The Human Factor in Administering Schools	3
EDLE 6873	Leading Schools with Data	3
Hours Subtotal		**15**
Research		
EDLE 6853	Research Traditions in Educational Leadership	3
Select 6 hours from the following:		6
SCFD 6123	Qualitative Research I	
SCFD 6193	Qualitative Research II [1]	
REMS 6003	Analyses of Variance [1]	
REMS 6013	Multiple Regression Analysis in Behavioral Studies [1]	
REMS 6373	Program Evaluation [1]	
REMS 5373	Educational Measurements [1]	
Hours Subtotal		**9**
Fieldwork		
EDLE 6883	Internship in Education I	3
EDLE 6893	Internship in Education II	3
EDLE 6910	Practicum	3
Hours Subtotal		**9**
Emphasis Core		
EDLE 6353	The Superintendency	3
EDLE 6363	Special Topics in School Finance Policy	3
EDLE 6423	The Politics of Education	3
EDLE 6453	Special Topics in Education Law	3
EDLE 6603	Organizational Theory in Education	3
Hours Subtotal		**15**
Cognate		
Select 6 hours		6
Suggested Courses:		
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
EDLE 6710	Special Problems	
REMS 6373	Program Evaluation	
Hours Subtotal		**6**
Dissertation		
10 hours required		10
Hours Subtotal		**10**

Note: Cognate and any additional courses must be approved by the student's committee.

Total Hours	**64**

1

Denotes classes with prerequisites.

Graduate College Doctor of Education (EdD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Education (EdD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

School Psychology, EdS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 85

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
SPSY 5110	Observation and Participation Field Experience for School Psychology Majors	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 6003	Analyses of Variance	3
SPSY 5000	Master's Thesis	2
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 6143	Introduction to Developmental Psychopharmacology	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
FDEP 5493	Psychology of Learning and Behavior	3
SPSY 6333	Instructional Assessment and Consultation	3
SPSY 5853	Applied Behavior Analysis	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 5000	Master's Thesis	2
SPSY 5813	Parent and Family Intervention in School Psychology	3
SPSY 6343	Behavioral Assessment and Consultation	3
SPSY 6113	Behavioral and Personality Assessment of Children and Youth	3
SPSY 5210	Introductory Practicum in School Psychology	2
FDEP 5183	Theories of Social Psychology	3
SPSY 6253	Single Case Designs in Behavior Analytic Settings	3
SPSY 5873	Applied Behavior Analysis II	3
SPSY 5510	Advanced Practicum in School Psychology	3
SPSY 6033	Introduction to Psychotherapy with Children and Adolescents	3
SPSY 5510	Advanced Practicum in School Psychology	3
SPSY 5503	Crisis Intervention and Emergency Action in School Settings	3
SPSY 5310	Practicum in Child and Adolescent Therapy	3
SPSY 6210	Specialist Internship in School Psychology	3
SPSY 6210	Specialist Internship in School Psychology	3
Total Hours		**85**

Graduate College Specialist in Education (EdS) Requirements

Learn more about Graduate College 2025-2026 Specialist in Education (EdS) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

School Psychology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 128

Code	Title	Hours
Core Courses		
Psychological and Education Foundations/Scientific		
Research and Data Analysis		
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
EPSY 6153	Advanced Research in Educational Psychology	3
EPSY 5000	Master's Thesis [1]	2
EPSY 6000	Doctoral Dissertation	15
SPSY 6253	Single Case Designs in Behavior Analytic Settings	3
History and Systems		
FDEP 6133	History and Systems of Psychology	3
Social Aspects/Diversity		
Select one of the following courses:		3
FDEP 5183	Theories of Social Psychology	
PSYC 6563	Advanced Social Psychology	
Biological Aspects of Behavior		
SPSY 6143	Introduction to Developmental Psychopharmacology	3
Select 3 hours from the following:		3
PSYC 6483	Neurobiological Psychology	
FDEP 6123	Biological Bases of Behavior	
Cognitive/Affective Aspects of Behavior		
EPSY 5463	Psychology of Learning	3
Human Development/Individual Differences and Disabilities		
EPSY 5103	Human Development in Psychology	3
SPSY 5113	Developmental Psychopathology	3
Education Service Delivery		
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
School Psychology Professional Practice Skills		
School Psychology Professional Standards		
SPSY 5023	Introduction to School Psychology	3
SPSY 6030	Ethics and Law in School Psychology	3
Assessment for Intervention/Measurement		
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
SPSY 6113	Behavioral and Personality Assessment of Children and Youth	3
Consultation/Prevention/Intervention/Program Evaluation		
SPSY 6333	Instructional Assessment and Consultation	3
SPSY 5853	Applied Behavior Analysis	3
SPSY 5873	Applied Behavior Analysis II	3
SPSY 6343	Behavioral Assessment and Consultation	3
SPSY 5503	Crisis Intervention and Emergency Action in School Settings	3
Direct Service/Psychotherapy		
SPSY 6033	Introduction to Psychotherapy with Children and Adolescents	3
SPSY 5813	Parent and Family Intervention in School Psychology	3
Choose at least one of the following:		3
CPSY 5320	Seminar in Counseling Psychology	
CPSY 6313	Advanced Group Interventions	
CPSY 6553	Advanced Practice in Marital and Family Treatment	
PSYC 6083	Principles of Evidence-Based Psychological Treatment	
Practicum/Internship		
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 5210	Introductory Practicum in School Psychology (120 hours)	2
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 5310	Practicum in Child and Adolescent Therapy (120 hours)	3
SPSY 5510	Advanced Practicum in School Psychology (600 hours)	3
SPSY 5510	Advanced Practicum in School Psychology	3
SPSY 6310	Doctoral Practicum in School Psychology (400 hours)	2
SPSY 6310	Doctoral Practicum in School Psychology	2
SPSY 6610	Doctoral Internship in School Psychology (1500-2000 hours)	2
SPSY 6610	Doctoral Internship in School Psychology	2
SPSY 6610	Doctoral Internship in School Psychology	2
Total Hours		**128**

1

Total hours for degree could increase by four depending on whether student chooses thesis or non-thesis option.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Sociology, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60 (Beyond the Master's Degree)

Code	Title	Hours
Core Coursework		
Sociological Theory		
Select 6 hours of approved coursework.		6
Research Methods/Statistics		
Select 15 hours of approved Research Methods/Statistics coursework.		15
Two Comprehensive Areas		
Select 12 hours from two approved comprehensive areas.		12
Hours Subtotal		**33**
Electives [1]		
Select 39-42 hours, based on number of dissertation hours. [1]		39-42
Hours Subtotal		**39-42**
Doctoral Thesis [1]		
Select 15-18 hours, depending on elective hours. [1]		15-18
Hours Subtotal		**15-18**
Pro-Seminar		
Select 1 hour of approved Pro-Seminar coursework.		1
Hours Subtotal		**1**
Total Hours		**60**

1

Combined elective and dissertation hours must total 57 hours.

Total Hours: 91 (Beyond the Bachelor's Degree)

Code	Title	Hours
Core Coursework		
Sociological Theory		
Select 6 hours of approved coursework.		6
Research Methods/Statistics		
Select 15 hours of approved Research Methods/Statistics coursework.		15
Two Comprehensive Areas		
Select 12 hours from two approved comprehensive areas.		12
Hours Subtotal		**33**
Electives [1]		
Select 39-42 hours, based on number of dissertation hours. [1]		39-42
Hours Subtotal		**39-42**
Doctoral Thesis [1]		
Select 15-18 hours, depending on elective hours. [1]		15-18
Hours Subtotal		**15-18**
Pro-Seminar		
Select 1 hour of approved Pro-Seminar coursework.		1
Hours Subtotal		**1**
Total Hours		**91**

1

Combined elective and dissertation hours must total 57 hours.

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Soil Science, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Required Courses		
SOIL 5020	Graduate Seminar	1
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences	1
SOIL 5120	Teaching Practicum in Plant and Soil Sciences	1
Additional Coursework Hours		23
Hours Subtotal		**26**
Thesis and Electives		
Required Minimum Thesis Credit Hours		15
Additional Minimum Coursework or Thesis Credit Hours		19
Hours Subtotal		**34**
Total Hours		**60**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Statistics, PhD

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 90 (Beyond the Bachelor's Degree)

Code	Title	Hours
Required Courses		
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5013	Statistics for Experimenters I	3
STAT 5023	Statistics for Experimenters II	3
STAT 5093	Statistical Computing	3
STAT 6113	Probability Theory	3
STAT 6203	Large Sample Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
STAT 5513	Multivariate Analysis	3
STAT 6223	Advanced Statistical Inference	3
STAT 6910	Special Problems	3
MATH 5043	Advanced Calculus I	3
MATH 5053	Advanced Calculus II	3
MATH 5143	Real Analysis I	3
Two hours from:		2
STAT 6010	Statistics Literature	
Hours Subtotal		**50**
Dissertation		
Dissertation Research		15
Electives		
Electives chosen in consultation with advisor		25
Total Hours		**90**

Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2025-2026 Doctor of Philosophy (PhD) Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Graduate Certificates

- 3D Fashion Design/Digital Product Creation, GCRT (p. 3051)
- Accounting, GCRT (p. 3052)
- Advanced Sports Medicine Concepts, GCRT (p. 3053)
- Aging Studies, GCRT (p. 3054)
- Aviation/Aerospace Administration, GCRT (p. 3055)
- Big Data Analytics, GCRT (p. 3056)
- Bioinformatics, GCRT (p. 3057)
- Brand Communication, GCRT (p. 3058)
- Building Level Leadership, GCRT (p. 3059)
- Business Analytics and Data Science, GCRT (p. 3060)
- Business Sustainability and Nonprofit Management, GCRT (p. 3061)
- Business, GCRT (p. 3062)
- Casino and Gaming Management, GCRT (p. 3063)
- Collaborative Piano, GCRT (p. 3064)
- College Teaching, GCRT (p. 3065)
- Comparative and International Education, GCRT (p. 3066)
- Developmental Disabilities, GCRT (p. 3067)
- Dietetics, GCRT (p. 3068)
- Digital Design in Design & Merchandising, GCRT (p. 3069)
- Digital Forensics & Incident Response, GCRT (p. 3070)
- District Level Leadership, GCRT (p. 3071)
- Dyslexia, GCRT (p. 3072)
- Educational and Psychological Measurement, GCRT (p. 3073)
- Effective Teaching in Elementary Schools, GCRT (p. 3074)
- Effective Teaching in Secondary Schools, GCRT (p. 3075)
- Elementary Mathematics Specialist, GCRT (p. 3076)
- Energy Business, GCRT (p. 3077)
- Engineering and Technology Management, GCRT (p. 3078)
- Entrepreneurship, GCRT (p. 3079)
- Environmental Science with Regulatory Certifications, GCRT (p. 3080)
- Facilitating Career Development, GCRT (p. 3081)
- Family Financial Planning, GCRT (p. 3082)
- Fashion Merchandising, GCRT (p. 3083)
- Finance and Investment Banking, GCRT (p. 3084)
- Food Safety Management, GCRT (p. 3085)
- Food Safety Science, GCRT (p. 3086)
- Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT (p. 3087)
- Forensic Crime Analysis, GCRT (p. 3089)
- Forensic Investigation of Impaired Driving, GCRT (p. 3090)
- Forensic Investigative Sciences, GCRT (p. 3091)
- Forensic Psychology, GCRT (p. 3093)
- Forensic Threat Assessment and Management, GCRT (p. 3094)
- Forensic Weapons of Mass Destruction Investigation, GCRT (p. 3095)
- Geographic Information Systems, GCRT (p. 3096)
- Global Issues, GCRT (p. 3097)
- Grassland Management, GCRT (p. 3098)
- Health Analytics, GCRT (p. 3099)
- Health Care Administration, GCRT (p. 3100)
- Health Care Administration: Compliance, GCRT (p. 3101)
- Health Care Administration: Finance, GCRT (p. 3102)
- Health Care Administration: Global Health, GCRT (p. 3103)
- Hidden Student Populations, GCRT (p. 3104)
- Hospitality and Tourism Analytics, GCRT (p. 3105)
- Human Resource Management, GCRT (p. 3106)
- Infant Mental Health, GCRT (p. 3107)
- Information Assurance, GCRT (p. 3108)
- Innovative Leadership, GCRT (p. 3109)
- Integrative Design of Building Envelope, GCRT (p. 3110)
- Interdisciplinary Toxicology, GCRT (p. 3111)
- International Disaster and Emergency Management, GCRT (p. 3112)
- K-12 STEM Educator, GCRT (p. 3113)
- Learning and Motivation, GCRT (p. 3114)
- Marketing Analytics, GCRT (p. 3115)
- Mathematics, GCRT (p. 3116)
- Medical Sciences, GCRT (p. 3117)
- Museum and Curatorial Studies, GCRT (p. 3118)
- Neuroscience, GCRT (p. 3119)
- Non-Profit Management, GCRT (p. 3120)
- Online Teaching, GCRT (p. 3121)
- Program Evaluation, GCRT (p. 3122)
- Public Health in Rural and Underserved Communities, GCRT (p. 3123)
- Quantum Information Science, GCRT (p. 3124)
- Recreation and Leisure Management, GCRT (p. 3125)
- School Library Certification, GCRT (p. 3126)
- Special Education, GCRT (p. 3127)
- Sport Communication, GCRT (p. 3128)
- Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT (p. 3129)
- Substance Abuse Counseling, GCRT (p. 3130)
- Supply Chain and Logistics, GCRT (p. 3131)
- Teaching English to Speakers of Other Languages, GCRT (p. 3132)
- Tribal Health Care Administration, GCRT (p. 3133)
- Workforce and Adult Education, GCRT (p. 3134)

3D Fashion Design/Digital Product Creation, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses (12hrs)		
DM 5053	3D Digital Product Creation	3
DM 5143	Digital Product Creation II	3
DM 5153	Advanced Digital Product Creation	3
DM 5183	Capstone: Digital Product Creation in Technical Design	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Select 12 hours from the following:		12
ACCT 5003	Advanced Federal Income Taxation	
ACCT 5013	Tax Research	
ACCT 5043	Taxation of Pass-Through Entities	
ACCT 5113	Financial Accounting Research	
ACCT 5133	Oil and Gas Accounting	
ACCT 5153	Financial Statement Analysis	
ACCT 5204	Financial Reporting I	
ACCT 5213	Financial Reporting II	
ACCT 5143	Advanced Topics in Financial Reporting	
ACCT 5333	Cost Accounting	
ACCT 5343	Accounting Information Systems and Data Analytics Tools	
ACCT 5353	Federal Income Taxation	
ACCT 5363	External Auditing	
ACCT 5453	Ethics for Public Accountants	
ACCT 5503	Advanced Auditing	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Advanced Sports Medicine Concepts, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
MAT 5712	Clinical Diagnosis and Therapeutic Interventions for the Lower Extremity	2
MAT 5722	Clinical Diagnosis and Therapeutic Interventions for the Upper Extremity	2
MAT 5732	Clinical Diagnosis and Therapeutic Interventions for the Head and Spine	2
MAT 5742	Clinical Diagnosis and Therapeutic Interventions for Non-Orthopedic Injuries	2
MAT 5752	Emergency Care in Sports Medicine	2
MAT 5762	Mental Health in Sports Medicine	2
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Aging Studies, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Core Courses		
HDFS 5413	Aging in Human Development	3
HDFS 5403	Foundations in Integrative Aging Studies	3
Hours Subtotal		**6**
Elective Courses		
Select 9 hours from the following:		9
EDHS 5543	Interdisciplinary Perspectives in Environments in Aging	
HDFS 5493	Aging and Diverse Families	
NSCI 5323	Physical Health, Nutrition, Wellness and Active Aging	
HDFS 5203	Family Systems	
EDHS 5533	Aging Policy and Advocacy	
EDHS 5633	Applied Research Methods and Evaluation of Aging Programs	
REMS 5953	Statistical Methods in Education	
EDHS 5240	Master's Creative Component	
HDFS 5110	Directed Study in HDFS	
HDFS 5400	Professional Seminar in Gerontology	
Hours Subtotal		**9**
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Aviation/Aerospace Administration, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
AVED 5593	Influencing Public Policy in the Aerospace Industry	3
AVED 5663	Issues in the Airline/Aerospace Industry	3
AVED 5773	Historical Significance of Aviation	3
AVED 6553	Foundations of Airline Executive Leadership	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Big Data Analytics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
CS 5433	Big Data Management	3
CS 5683	Big Data Analytics	3
CS 5783	Machine Learning	3
STAT 5023	Statistics for Experimenters II	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Bioinformatics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 16

Code	Title	Hours
Required Courses		
MICR 5203	Bioinformatics	3
BIOC 5930	Advanced Biochemical Techniques (Capstone Project)	1
Electives		
Select 12 hours from the following: [1]		12
Life Sciences Core		
BIOC 6733	Functional Genomics	
PBIO 5553	Molecular Phylogenectic Analysis	
ANSI 5010	Special Problems (Mapping and Marker Assisted Selection)	
PBIO 5110	Special Topics in Plant Biology (Phylogenomics)	
BIOC 5102	Molecular Genetics	
Statistics Core		
STAT 6013	Genetic Statistics	
STAT 5013	Statistics for Experimenters I	
STAT 5023	Statistics for Experimenters II	
STAT 5093	Statistical Computing	
STAT 4203	Mathematical Statistics I	
STAT 4213	Mathematical Statistics II	
Computer Science Core		
CS 5423	Principles of Database Systems	
CS 5433	Big Data Management	
CS 5070	Seminar and Special Problems	
CS 4433	Introduction to Database Systems	
Math Core		
MATH 6590	Topics in Applied Mathematics	
Hours Subtotal		**16**
Total Hours		**16**

1

Select 3 hours from each discipline or more than one from various disciplines with Advisory Committee approval.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Brand Communication, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Required Courses		
MC 5733	Responsibility in Mass Communication	3
MC 5283	Citizen Branding	3
Hours Subtotal		**6**
Electives		
Select 9 hours from the following:		9
MC 5253	International Mass Communication	
MC 5323	Nation Branding	
MC 5603	Integrated Marketing Communication	
MC 5613	Storytellers Studio	
MC 5163	Mass Communication Law	
MC 5933	Theories of Persuasion	
MC 5383	Media Relations	
MC 5753	Media And Elections	
MC 5520	Specialized Strategic Communications Applications	
MC 5953	Strategic Health Communications Campaigns	
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5113	Methods of Research in Mass Communication	
MKTG 5133	Marketing Management	
Hours Subtotal		**9**
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Building Level Leadership, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
Select 6 hours from the following:		6
EDLE 5253	The Principalship	
EDLE 5723	Education Law	
EDLE 5473	Supervision of Instruction	
EDLE 5893	Field Studies Intern II	
Hours Subtotal		**12**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5753	Advanced Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
MKTG 5233	Global Competitive Environment	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MKTG 5553	International Marketing Strategy	
MSIS 5193	Programming for Data Science and Analytics I	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5413	Advanced Data Science Applications	
MSIS 5503	Statistics for Data Science	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Graduate Database Management	
MSIS 5663	Advanced Data Wrangling	
MSIS 5673	Descriptive Analytics and Visualization	
One of the following may be used as an elective for the GCRT BADS:		
IEM 5003	Probability and Statistics for Engineers	
IEM 5013	Introduction to Optimization	
IEM 5603	Project Management	
IEM 5703	Discrete System Simulation	
IEM 5723	Data, Process and Object Modeling	
IEM 5763	Supply Chain Strategy	
Other graduate courses as approved by program director		
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Sustainability and Nonprofit Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Core Courses		
MGMT 5033	Management of Sustainable Enterprises	3
or MGMT 5083	Corporate and Social Responsibility	
MGMT 5093	Management of Nonprofit Organizations	3
or MGMT 5163	Fundraising for Nonprofit Organizations	
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
MGMT 5073	Management and Ethical Leadership	
MGMT 5083	Corporate and Social Responsibility	
MKTG 5333	Marketing for Nonprofit Organizations	
MGMT 5163	Fundraising for Nonprofit Organizations	
MKTG 5223	Entrepreneurial Marketing	
MGMT 5533	Leadership Challenges	
EEE 5403	Social Entrepreneurship	
Other graduate courses as approved by program coordinator.		
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MKTG 5133	Marketing Management	3
ACCT 5183	MBA Financial Reporting	3
FIN 5013	Business Finance	3
Electives		
Select three hours from the following:		3
ECON 5113	Managerial Economics	
MSIS 5303	Prescriptive Analytics	
EEE 5233	Ideation, Creativity & Innovation	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Casino and Gaming Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
HTM 5253	Fundamentals of Gaming Management	3
HTM 5273	Casino Operations and Management	3
HTM 5383	Gaming Law, Regulations, and Compliance	3
MGMT 5963	Online and Mobile Gaming Management	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Collaborative Piano, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Coursework		
MUSI 5002	Final Degree Performance	2
MUSI 5042	Collaborative Piano I	2
MUSI 5142	Collaborative Piano II	2
MUSI 5600	Chamber Ensembles	2
MUSI 5700	Piano Accompanying (two semesters)	2
Hours Subtotal		**10**
Elective Courses		
Select two hours from the following:		2
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5490	Lessons in Applied Music (Major Field)	
MUSI 5712	Advanced Studies in Conducting I	
MUSI 5722	Advanced Studies in Conducting II	
MUSI 5842	Music Repertory	
MUSI 5890	Special Studies in Music Pedagogy	
Hours Subtotal		**2**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

College Teaching, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
Select 3 hours from the following:		3
CIED 5073	Pedagogical Research (with practicum)	
CIED 6073	Advanced Pedagogical Research (with practicum)	
Hours Subtotal		**3**
Electives		
Select 9 hours from the following:		9
CIED 5043	Issues in Teaching	
CIED 5093	Curriculum Design	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 6033	Analysis of Teaching	
CIED 6133	Theory to Practice in Education	
EDTC 5503	Facilitating Online Learning	
HESA 6713	Effective Teaching in College and Universities	
HIST 5021	Teaching History at the College Level	
EPSY 5473	Psychology of Adult Learning	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		**9**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Comparative and International Education, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Requirements		
Select 12 hours from the following:		12
ANTH 5243	Globalization and Culture	
EDLE 5813	Leadership Theory and Ethical Decision Making	
EDLE 5953	Developing Educational Organizations	
EDLE 6483	School Leadership, Culture and Ethics	
EDLE 6603	Organizational Theory in Education	
HESA 6163	International Issues in Higher Education	
SCFD 5023	The Comparative Approach: Theory, Method, and Practice	
SCFD 5873	Culture, Society and Education	
SCFD 6023	Comparative Education	
SOC 5223	Culture, History and World Systems	
SOC 5653	Gender and the Middle East	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Developmental Disabilities, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Core Course Requirements		
(non-degree seeking students must begin with one of the following courses when entering the graduate certificate program)		
HDFS 5083	Disabilities in the Family and Community Context	3
HDFS 5283	Developmental Disabilities	3
Specialization Coursework		
Select two courses from the following:		6
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5193	Reflective Practice	
HDFS 5690	Marriage and Family Therapy Practicum	
HDFS 5623	Systems Theory and Applications to the Family	
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Dietetics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Core Courses		
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
or REMS 5013	Research Design and Methodology	
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5643	Advanced Medical Nutrition Therapy	3
Hours Subtotal		**12**
Dietetic Internship Practicum Courses		
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
Hours Subtotal		**6**
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Digital Design in Design & Merchandising, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
DM 5073	Virtual and Augmented Reality Applications in Design and Merchandising	3
DM 5173	Advanced Digital Design Communication	3
Electives		
Select six hours from the following:		6
DM 5113	Theories of Creative Process in Design and Merchandising	
DM 5373	Topics in Building Information Modeling	
DM 5043	Technology in Apparel Retail and Consumer Experiences	
Other elective approved by Advisor		
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Digital Forensics & Incident Response, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
FRNS 5683	Digital and Multimedia Evidence for Investigators	3
FRNS 6683	Computer Forensics, Extractions and Analysis	3
FRNS 6663	Network Forensics	3
FRNS 6673	Mobile Device Forensics	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

District Level Leadership, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
EDLE 6873	Leading Schools with Data	3
EDLE 6633	School Leadership and Community Collaboration	3
Select 6 hours from the following: [1]		6
EDLE 6493	School Improvement/Reform	
EDLE 6483	School Leadership, Culture and Ethics	
EDLE 6853	Research Traditions in Educational Leadership	
EDLE 6353	The Superintendency	
EDLE 6453	Special Topics in Education Law	
EDLE 6363	Special Topics in School Finance Policy	
EDLE 6393	The Human Factor in Administering Schools	
EDLE 6893	Internship in Education II	
Total Hours		**12**

1

Other education courses may be approved by the certificate coordinator.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Dyslexia, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 17

Code	Title	Hours
CDIS 5542	Intro to Dyslexia	2
CDIS 5552	Language Processing for Reading and Writing	2
CIED 5893	Reading Processes and Practices GR 1-8	3
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	3
CDIS 5562	Dyslexia and the Brain	2
CDIS 5572	Assessment of Dyslexia	2
CIED 5493	Multisensory Phonics Instruction	3
Total Hours		**17**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational and Psychological Measurement, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Requirements		
REMS 5953	Statistical Methods in Education	3
Select 9 hours of the following:		9
REMS 5373	Educational Measurements	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6673	Item Response Theory	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Effective Teaching in Elementary Schools, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 14

Code	Title	Hours
Two hours from:		2
CIED 5373	Design and Management of the Elementary School Classroom	
or CIED 4362	Design and Management of Elementary Classrooms	
CIED 5323	Teaching Social Studies in the Schools	3
CIED 5893	Reading Processes and Practices GR 1-8	3
SMED 5013	Mathematics Education: Theory and Practice(Grade 1-4)	3
SMED 5083	Teaching Science in the Elementary School (Grades 1-8)	3
Total Hours		**14**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Effective Teaching in Secondary Schools, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
To achieve certificate objectives, students who are already alternative or emergency certified would complete the following twelve hours of coursework:		
CIED 5333	Effective Classroom Management for Secondary Schools	3
CIED 5363	Effective Teaching Strategies for the 6-12 Classroom	3
Select six hours from the following:		6
CIED 5010	Practicum for Early Career Secondary Teachers	
CIED 5403	Teaching and Learning in the Secondary Schools: English Language Arts Methods	
CIED 5413	Teaching and Learning in the Secondary Schools: Social Studies Methods	
CIED 5143	Language Arts in the Curriculum	
CIED 5353	Literature for Children, Adolescents and Adults	
CIED 5433	Reading and Writing in the Content Areas	
CIED 5443	Teaching Reading with Literature	
CIED 5483	Literacy and Technology Across the Curriculum	
CIED 5843	First and Second Language Acquisition for Teachers	
CIED 5863	Foreign Language Instruction, Curriculum and Assessment: Grades Pk-12	
CIED 6653	Issues and Trends in Adolescent Literacy	
EDTC 5103	Advanced Computing Applications in Education	
SMED 5143	Methods for Teaching Secondary Science	
SMED 5153	Methods for Teaching Secondary Math	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5280	Workshop in Science Education	
SMED 5813	Assessment in Science Education	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5913	Teaching Geometry and Spatial Visualization	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Elementary Mathematics Specialist, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Required Courses		
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	3
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	3
SMED 5913	Teaching Geometry and Spatial Visualization	3
SMED 5923	Teaching Algebra and Mathematical Tasks	3
SMED 5933	Teaching Data and Probability in Schools	3
SMED 5943	Mathematics Leadership and Coaching (includes a minimum of 30 hours of field experience)	3
Each of these courses are tied directly to the State EMS standards.		
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Energy Business, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total hours: 12

Code	Title	Hours
Required Courses		
FIN 5003	Introduction to Energy Business	3
FIN 5363	Energy Finance	3
ECON 5173	Energy Economics	3
Select one of the following:		3
GEOL 5990	Advanced Studies in Geology	
MGMT 5033	Management of Sustainable Enterprises	
FIN 5053	Theory and Practice of Financial Management	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5343	Valuation and Financial Modeling	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Engineering and Technology Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Course		
ETM 5111	Introduction to Strategy, Technology and Integration	1
Elective Courses		
Select 11 hours of the following:		11
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5341	Leadership Strategies for Technical Professionals	
ETM 5351	Planning Technical Projects	
ETM 5371	Ethics for Practicing Engineers	
ETM 5391	New Product Introduction and Commercialization	
ETM 5411	Engineering Economic Analysis	
ETM 5461	Intellectual Property Management	
ETM 5471	Introduction to System Safety	
ETM 5481	Sustainable Enterprise Strategies	
ETM 5531	Contract Law in Engineering and Technology	
ETM 5253	Engineering Problem Solving and Decision-Making	
ETM 5943	Lean Sigma Implementation	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5283	Strategic Planning	
ETM 5153	Foundations of Engineering Management	
ETM 5163	Business Innovation and Technology	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Entrepreneurship, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
EEE 5233	Ideation, Creativity & Innovation	3
EEE 5333	Launching a Business: The First 100 Days	3
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5403	Social Entrepreneurship	
EEE 5513	Growing Small and Family Ventures	
EEE 5610	Advanced Entrepreneurship Practicum (Advanced Practicum CIE Scholar - special permission required)	
EEE 5653	Venture Capital	
EEE 5713	Native American Entrepreneurship	
EEE 5993	Preparing Effective Business Plans	
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Environmental Science with Regulatory Certifications, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
ENVR 5593	Hazardous Waste Operations and Emergency Response: HAZWOPER	3
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5573	Applied Standards for Environmental Managers	3
ENVR 5583	Safety Aspects for Environmental Managers	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Facilitating Career Development, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Core		
HESA 5223	Career Development for College Students	3
HESA 5213	Student Development Theory	3
HESA 5320	Seminar in Student Development	3
Hours Subtotal		**9**
Guided Electives		
Choose one of the following:		3
HESA 5463	Legal Issues in Student Affairs	
HESA 5813	Leadership and Development of Higher Education Organizations	
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	
Hours Subtotal		**3**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Family Financial Planning, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Course Requirements		
FFP 5403	Estate Planning for Families	3
FFP 5453	Retirement Planning, Employee Benefits and the Family	3
FFP 5553	Insurance Planning for Families	3
FFP 5603	Investing for the Family's Future	3
FFP 5653	Personal Income Tax for Family Financial Planning	3
FFP 5803	Case Studies in Family Financial Planning	3
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Fashion Merchandising, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Core Courses		
DM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	3
DM 5623	Professional Advancement in Merchandising	3
DM 5113	Theories of Creative Process in Design and Merchandising	3
Elective Courses		
Select 3 credit hours from the following:		3
DM 5643	Promotional Strategies in Merchandising	
DM 6403	Merchandising Theory Application and Strategy Implementation	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Finance and Investment Banking, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

A student may not have a grade lower than "C" and must maintain a grade-point-average of 3.0 over all courses applicable to this certificate.
Total Hours: 15

Code	Title	Hours
Required Courses		
FIN 5013	Business Finance [1]	3
FIN 5053	Theory and Practice of Financial Management	3
FIN 5223	Investment Theory and Strategy	3
FIN 5343	Valuation and Financial Modeling	3
Select 1 course from the following:		3
FIN 5653	Bond Markets	
FIN 5213	International Business Finance	
FIN 5813	Portfolio Management	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5363	Energy Finance	
FIN 5833	Student Managed Investment Fund	
FIN 5103	Securities Industry Essentials	
FIN 5633	Computational Finance	
Other graduate courses as approved by program coordinator.		
Total Hours		**15**

1

If a student has taken the equivalent of FIN 5013, they need to take an extra elective.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Food Safety Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Core Courses		
FDSC 5143	Food Safety Modernization Act	3
FDSC 5233	Food Safety Audit Schemes	3
Electives		6
FDSC 5243	Researching Consumer Food Preferences	
AGEC 5423	Agribusiness Management	
AGEC 5303	Agricultural Market Policy and Organization	
EEE 5513	Growing Small and Family Ventures	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Food Safety Science, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Core Courses		
FDSC 5143	Food Safety Modernization Act	3
FDSC 5233	Food Safety Audit Schemes	3
Electives		6
FDSC 5113	Internal Audit and Advanced HACCP	
FDSC 5153	Advanced Food Microbiology	
FDSC 5253	Pre-Harvest Food Safety	
FDSC 5373	Advanced Food Chemistry	
FDSC 5763	Analysis of Food Products	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Arson, Explosives, Firearms, and Toolmarks Investigation, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Hours		
Degree Core		
Select 6 hours from the following:		6
FRNS 5013	Survey of Forensic Sciences	
FRNS 5063	Ethical Research and Scientific Writing	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5653	The Law and Expert Evidence	
FRNS 5963	Forensic Statistics	
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5293	Violence in Forensic Settings	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5693	Battlefield Forensics and the Global War on Terror	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5743	Forensic Science Seminar	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5970	Directed Readings in Forensic Sciences (maximum of 3 hours can apply to this degree)	
FRNS 5990	Special Topics in Forensic Sciences (Forensic Evidence Processing for Post-Blast Investigations)	
FRNS 5990	Special Topics in Forensic Sciences (Advanced Forensic Evidence Processing for Post-Blast Investigations)	
FRNS 5990	Special Topics in Forensic Sciences (Introduction to Digital Evidence)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum of 6 hours can apply to this degree program)	
FRNS 5990	Special Topics in Forensic Sciences (Forensic Engineering for Investigators)	
FRNS 5990	Special Topics in Forensic Sciences (Forensic Examination of Firearms)	
FRNS 5990	Special Topics in Forensic Sciences (Advanced Forensic Examination of Firearms)	
FRNS 5990	Special Topics in Forensic Sciences (Forensic Examination of Toolmarks)	
FRNS 5990	Special Topics in Forensic Sciences (Advanced Forensic Examination of Toolmarks)	
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering	
FRNS 6123	Advanced Fire Dynamics	
FRNS 6163	Blast Modeling	
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	
FRNS 6183	Advanced Computer Fire Modeling	

FRNS 6263	Threat Assessment and Management of Violent Extremism	
FRNS 6400	Case Studies in Forensic Science (Maximum of 3 hours can apply to this degree.)	
FRNS 6423	Advanced Blast Injuries and Effects	
FRNS 6663	Network Forensics	
FRNS 6673	Mobile Device Forensics	
FRNS 6683	Computer Forensics, Extractions and Analysis	
FRNS 6833	Advanced Identification of Destructive Device Fuzing Systems	
FRNS 6843	Advanced Destructive Device Circuit Exploitation	
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 6903	Advanced Forensic Examination of Firearms	
FRNS 6913	Advanced Toolmark Examination and Identification	
FRNS 6923	RCIED - Advanced Analysis and Mitigation	
FRNS 6933	Shooting Reconstruction for Examiners	
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
Hours Subtotal		**6**
Other FRNS courses not listed may be used as an elective with departmental permission.		
No more than 2 courses (6 hours) can overlap between any two or more Graduate Certificates in Forensic Sciences.		
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Crime Analysis, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
FRNS 5553	Introduction to Forensic Crime Analysis	3
FRNS 5563	Theories in Forensic Crime Analysis	3
FRNS 5573	Policing Strategies in Forensic Crime Analysis	3
FRNS 5583	Data and Statistics in Forensic Crime Analysis	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Investigation of Impaired Driving, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5523	Forensic Toxicology	3
FRNS 5333	Forensic Chemistry	3
FRNS 5303	Forensic Investigation of Impaired Vehicle Operation (Forensic Investigation of Impaired Vehicle Operation)	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Investigative Sciences, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Minimum GPA: 3.0 in all courses applicable to the Graduate Certificate with no grade lower than a "C"

Total Hours: 12

Code	Title	Hours
Core Courses		
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5613	Criminalistics and Evidence Analysis	3
Guided Electives		
Select 6 hours of electives		6
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5243	Population Genetics for the Forensic Scientist	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5293	Violence in Forensic Settings	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5583	Data and Statistics in Forensic Crime Analysis	
FRNS 5653	The Law and Expert Evidence	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum of 3 hours can apply to this degree.)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering	
FRNS 6123	Advanced Fire Dynamics	
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	
FRNS 6183	Advanced Computer Fire Modeling	
FRNS 6263	Threat Assessment and Management of Violent Extremism	
FRNS 6273	Threat Assessment and Management of Workplace Violence	
FRNS 6283	Threat Assessment and Management of Violence in Schools	
FRNS 6293	Threat Assessment and Management of Stalking	
FRNS 6400	Case Studies in Forensic Science (Maximum of 6 hours can apply to this degree.)	
FRNS 6423	Advanced Blast Injuries and Effects	
FRNS 6663	Network Forensics	
FRNS 6673	Mobile Device Forensics	
FRNS 6683	Computer Forensics, Extractions and Analysis	
FRNS 6733	Juvenile Issues in Forensic Sciences	

FRNS 6833	Advanced Identification of Destructive Device Fuzing Systems
FRNS 6843	Advanced Destructive Device Circuit Exploitation
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations
FRNS 6903	Advanced Forensic Examination of Firearms
FRNS 6913	Advanced Toolmark Examination and Identification
FRNS 6933	Shooting Reconstruction for Examiners
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 6 hours can apply to this degree.)
Other FRNS courses not listed may be used as an elective with departmental permission.	
No more than 2 courses (6 hours) can overlap between any two or more Graduate Certificates in Forensic Sciences.	
Total Hours	**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Psychology, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Minimum GPA: 3.00 in all courses
Total Hours: 12

Code	Title	Hours
Core Requirements		
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5713	Forensic Psychology	3
FRNS 5733	Forensic Victimology	3
Guided Electives		**3**
FRNS 5723	Advanced Forensic Psychology	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 6400	Case Studies in Forensic Science	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5293	Violence in Forensic Settings	
No more than 2 courses (6 hours) can overlap between any two or more Graduate Certificates in Forensic Sciences.		
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Threat Assessment and Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total hours: 12

Code	Title	Hours
Required		
FRNS 5273	Forensic Threat Assessment and Management	3
FRNS 5293	Violence in Forensic Settings	3
FRNS 5713	Forensic Psychology	3
Select one of the following:		3
FRNS 6263	Threat Assessment and Management of Violent Extremism	
FRNS 6273	Threat Assessment and Management of Workplace Violence	
FRNS 6283	Threat Assessment and Management of Violence in Schools	
FRNS 6293	Threat Assessment and Management of Stalking	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Weapons of Mass Destruction Investigation, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
FRNS 5013	Survey of Forensic Sciences	3
FRNS 5343	Forensic Investigation of Clandestine Laboratories	3
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	3
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Geographic Information Systems, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Core Courses		
Select three courses from the following:		9
GEOG 5103	Fundamentals of Geographic Information Systems	
GEOG 5323	Geographic Information Systems: Resource Management Applications	
GEOG 5253	Geographic Information Systems: Socioeconomic Applications	
GEOG 5343	Advanced Geographic Information Systems: Resource Management Applications	
GEOG 5353	Advanced Geographic Information Systems: Socioeconomic Applications	
GEOG 5373	Geographic Information Systems in Public Health	
Hours Subtotal		**9**
Electives		
Select one course from each category:		6
Category 1: Spatial Analysis/GIS Programming		
GEOG 5383	Geospatial Programming with Python and AI Tools	
GEOG 5303	Geographic Analysis I	
GEOG 6303	Geographic Analysis II	
Category II: Spatial Data Collection, Management & Representation		
GEOG 5263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 5503	Applications of the Global Positioning System in Field Research	
GEOG 5333	Remote Sensing	
GEOG 5663	Web GIS: Trends, Principles, and Applications	
GEOG 6313	Mixed Methods in Field Research	
GEOG 6333	Advanced Remote Sensing	
Hours Subtotal		**6**
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Global Issues, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Core Courses		
Select nine hours from the following:		9
GS 5013	Contemporary Issues in Global Studies	
GS 5213	Global Trade Economics	
GS 5223	Culture, History and World Systems	
GS 5233	Global Competitive Environment	
GS 5243	Trade and Investment Promotion	
GS 5313	Global Communication and Public Diplomacy	
GS 5323	Nation Branding	
GS 5333	Certified Global Business Professional	
GS 5343	Geopolitics of New Media	
GS 5513	Global Crisis Management	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
GS 5543	International Dimensions of Fire and Emergency Management	
GS 5553	Global Poverty and Inequality	
Hours Subtotal		**9**
Electives		
Choose any two courses from one of the focus areas below or from the list of core courses listed above:		6
Global Trade and Business		
MKTG 5553	International Marketing Strategy	
AGEC 5343	International Agricultural Markets and Trade	
MGMT 5743	Intl Negotiations	
ECON 5603	Global Economics	
FIN 5213	International Business Finance	
EEE 5403	Social Entrepreneurship	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as approved by Director of MSGS program		
Public Diplomacy and Global Communication		
MC 5253	International Mass Communication	
GS 5043	Politics of the Global Economy	
GS 5223	Culture, History and World Systems	
SOC 5333	Global Population and Social Problems	
POLS 5673	Understanding and Responding to Terrorism	
POLS 5203	ProSeminar in International Relations	
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as approved by Director of MSGS program		
Global Leadership and Development		
AGED 5703	Cultural Competency for Working in Agricultural and Extension Education	
ANTH 5243	Globalization and Culture	
GEOG 5233	Human Dimensions of Global Environmental Change	
MGMT 5093	Management of Nonprofit Organizations	
NSCI 5553	Global Nutrition and Food Security	
SCFD 6023	Comparative Education	
EEE 5403	Social Entrepreneurship	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as approved by Director of MSGS program		
Global Disaster and Crisis Management		
POLS 5673	Understanding and Responding to Terrorism	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6303	Populations at Risk	
FEMP 5223	Preparedness and Planning	
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
SOC 6493	Sociology of Disaster	
NSCI 5553	Global Nutrition and Food Security	
GEOG 5233	Human Dimensions of Global Environmental Change	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
Other courses as approved by Director of MSGS program		
Hours Subtotal		**6**
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Grassland Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
NREM 5713	Grassland Fire Ecology	3
NREM 5692	Grassland Monitoring and Assessment.	2
NREM 5682	Grassld Plant Identification	2
Hours Subtotal		**7**
Elective Courses		
Select 5 hours from the following:		5
NREM 5693	Principles of Forage Quality and Evaluation to Ruminate	
NREM 5673	Rangeland Resources Watershed Management	
NREM 5033	Ecology of Invasive Species	
Hours Subtotal		**5**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Analytics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
HCA 5013	Survey of Health Care Administration [1]	3
MSIS 5673	Descriptive Analytics and Visualization	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		**9**
Electives		
Select 3 hours from the following:		3
MSIS 5303	Prescriptive Analytics	
MSIS 5663	Advanced Data Wrangling	
MSIS 5193	Programming for Data Science and Analytics I	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5413	Advanced Data Science Applications	
MSIS 5503	Statistics for Data Science	
MSIS 5643	Graduate Database Management	
MSIS 5683	Advanced Analytics Technologies	
Other graduate courses as approved by program coordinator.		
Hours Subtotal		**3**
Total Hours		**12**

1

Or, other HCA 5000/6000 level course for those who have completed/are pursuing the Health Care Administration, DHCA, or the Health Care Administration, MS.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
HCA 5013	Survey of Health Care Administration	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5063	Health Care Compliance	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration: Compliance, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5063	Health Care Compliance	3
HCA 5993	Clinical Operations Management	3
HCA 6053	Advanced Heathcare Law	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration: Finance, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
HCA 5083	The Financial Structure of Health Care Organizations	3
HCA 5213	Advanced Cases in Healthcare Finance	3
HCA 5163	Healthcare Accounting and Auditing	3
HCA 5063	Health Care Compliance	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration: Global Health, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
GLHE 5103	Introduction to Global Health	3
or HCA 5103	Introduction to Global Health	
GLHE 5143	Relief and Development in Global Health	3
or HCA 5143	Relief and Development in Global Health	
GLHE 5153	International Health Systems	3
or HCA 5153	International Health Systems	
GLHE 5173	Emerging Global Infectious Diseases	3
or HCA 5173	Emerging Global Infectious Diseases	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Hidden Student Populations, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
HESA 5333	Introduction to Hidden Student Populations	3
HESA 5433	Practicum in Hidden Student Populations	3
Guided Electives		
Select 6 hours from the following: [1]		6
HESA 5340	Hidden Student Populations (Group of one-hour courses, each with a focus on a specific hidden population - up to 6 credit hours)	
HESA 5213	Student Development Theory	
SCFD 6983	Diversity and Equity Issues in Education	
SCFD 5873	Culture, Society and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SCFD 6990	Seminar in Social Foundations	
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EDLE 6633	School Leadership and Community Collaboration	
WAED 5013	Foundations and Characteristics of Adult Learning	
WAED 5203	Foundations of Adult and Continuing Education	
SPED 5633	Behavior Characteristics of Exceptional Individuals	
SPED 5993	Culturally Responsive Teaching in Special Education	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
HDFS 5223	Resilience in Individuals and Families	
HDFS 5253	Theory and Research: Social and Emotional Development	
HDFS 5293	Human Development Theory	
HDFS 5543	Family Crisis and Trauma	
HDFS 5573	Adolescent in Family Context	
HDFS 5673	Family Dynamics of Addiction	
HDFS 5753	Leadership and Management of Community Service Programs	
Total Hours		**12**

1

Students select interdisciplinary electives in areas across campus through consultation with their advisor and with consideration of their individual interests and leadership in their current and future educational spaces. Electives may come from the pre-approved list or submitted for faculty review and approval.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Hospitality and Tourism Analytics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	3
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	3
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
HTM 5323	Hospitality and Tourism Financial Management	
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
MKTG 5733	Introduction to Marketing Analytics	
MKTG 5743	Advanced Marketing Analytics	
BADM 5513	Fundamentals of Business Analytics	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5623	Information and Network Technology Management	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Graduate Database Management	
MGMT 5543	Human Resource Analytics	
Other graduate courses as approved by program coordinator.		
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Resource Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
MGMT 5133	Total Rewards	3
MGMT 5153	Talent Development	3
MGMT 5823	Talent Acquisition	3
LSB 5423	Employment Law	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Infant Mental Health, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Required Courses		
HDFS 5233	Infant Mental Health	3
HDFS 5243	Infant and Early Childhood Development and Attachment	3
HDFS 5193	Reflective Practice	3
HDFS 5343	Developmental Assessment and Interventions	3
HDFS 5513	Issues in Family Science	3
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Information Assurance, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
MSIS 5203	Advanced Infrastructure Development	3
MSIS 5213	Cybersecurity Systems Management	3
Select 6 hours of the following:		6
MSIS 5233	Advanced Applied Ethical Hacking	
MSIS 5243	Information Technology Forensics and Incident Response	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5713	Scripting Essentials	
Other graduate courses as approved by program coordinator.		
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Innovative Leadership, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total hours: 12

Code	Title	Hours
Required Courses		
MGMT 5533	Leadership Challenges	3
MGMT 5073	Management and Ethical Leadership	3
MGMT 5800	Special Topics in Management (Inclusive Leadership)	3
Select one of the following:		3
MGMT 5713	Negotiation and Third-Party Dispute Resolution	
MGMT 5083	Corporate and Social Responsibility	
MGMT 5800	Special Topics in Management (Management Consulting)	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Integrative Design of Building Envelope, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Degree Core		
ARCH 5003	Integrative Design	3
Hours Subtotal		**3**
Electives		
Select 9 hours of the following:		9
ARCH 5023	Timber and Masonry Design and Analysis	
ARCH 5093	Real Estate Development	
ARCH 5100	Special Topics in Architecture	
ARCH 5133	Advanced Energy Issues in Architecture	
ARCH 5263	Advanced Architecture Technology Seminar	
ARCH 5493	Entrepreneurship and Architecture	
ARCH 6243	Structures: Analysis III	
ARCH 6343	Structures: Steel III	
ARCH 6543	Structures: Concrete III	
CIVE 5113	Construction Business Management	
CIVE 5183	Construction Estimating	
CIVE 5193	BIM for Constructions	
CIVE 5273	Concrete Durability	
CIVE 5583	Advanced Construction Materials	
CIVE 5873	Air Pollution Control Engineering	
FSEP 5033	Risk Analysis	
FSEP 5113	Introduction to Fire Dynamics	
FSEP 5133	Principles of Industrial and Process Safety	
FSEP 5143	Performance Based Design for Life Safety in Fire and Other Hazards	
FSEP 5163	Building Electrical Systems	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
MSE 5013	Advanced Thermodynamics of Materials	
MSE 5023	Diffusion and Kinetics	
MSE 5033	Composite Materials	
MSE 5053	Smart Materials	
MSE 5093	Fundamentals of Materials Science	
MSE 5174	Fundamentals of Photovoltaics	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
Other courses approved by advisor.		
Hours Subtotal		**9**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Interdisciplinary Toxicology, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Courses		
Select 12 hours from at least two different participating departments/colleges:		12
Biomedical Sciences		
BIOM 6543	Environmental Toxins in the Brain	
or ITOX 6543	Environmental Toxins of the Brain	
Biochemistry and Molecular Biology		
BIOC 6820	Selected Topics in Biochemistry	
or ITOX 6820	Selected Topics in Biochemistry	
Forensic Sciences		
FRNS 5523	Forensic Toxicology	
or ITOX 5523	Forensic Toxicology	
FRNS 5282	Methods in Forensic Sciences	
or ITOX 5282	Methods of Forensic Science	
Microbiology		
MICR 5203	Bioinformatics	
or ITOX 5203	Bioinformatics	
Comparative Biomedical Sciences		
CBSC 5103	Biochemical and Molecular Toxicology	
or ITOX 5103	Biochemical and Molecular Toxicology	
CBSC 6223	Xenobiotic Disposition	
or ITOX 6223	Xenobiotic Disposition	
CBSC 5801	Nonclinical Drug Development	
or ITOX 5801	Nonclinical Drug Development	
CBSC 5802	Experimental Principles and Approaches	
or ITOX 5802	Experimental Principles and Approaches	
CBSC 5902	Toxicology of Chemical Warfare and Chemical Terrorism	
or ITOX 5902	Toxicology of Chemical Warfare and Chemical Terrorism	
Integrative Biology		
BIOL 5303	Organismal Ecotoxicology	
or ITOX 5303	Organismal Ecotoxicology	
BIOL 5363	Principles of Toxicology	
or ITOX 5363	Principles of Toxicology	
BIOL 5343	Population and Community Ecotoxicology	
or ITOX 5343	Population and Community Toxicology	
BIOL 5423	Techniques in Environmental Toxicology	
or ITOX 5423	Techniques in Environmental Toxicology	
Hours Subtotal		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

International Disaster and Emergency Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Global Studies Core Requirements		
GS 5513	Global Crisis Management	3
GS 5013	Contemporary Issues in Global Studies	3
or GS 5110	Internship in Global Studies	
or GS 5200	Study Abroad	
Fire and Emergency Management Program Core Requirements		
FEMP 5623	Emergency Management in the International Setting	3
FEMP 6313	Comparative and International Dimensions of Emergency Management	3
Electives		
Select two courses and six credit hours minimum from the following:		6
AGCM 5503	Risk and Crisis Communication in Agricultural Sciences and Natural Resources	
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 6303	Populations at Risk	
GS 5020	Independent Study	
GS 5070	Special Topics in Global Studies	
GS 5200	Study Abroad	
GS 5413	Global Development	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
MGMT 5163	Fundraising for Nonprofit Organizations	
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

K-12 STEM Educator, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
SMED 5050	Seminar in Integrated Mathematics and Science Applications	3
SMED 5313	Introduction to K-12 Engineering Education	3
SMED 5333	Developing Informal and Formal STEM Programs in Schools	3
Select three hours from the following:		3
SMED 5223	Teaching Science in the Schools	
SMED 5243	Environmental Education in the Curriculum	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5280	Workshop in Science Education	
SMED 5283	Inquiry Teaching and Learning in Science and Mathematics Education	
SMED 5293	Teaching and Learning Mathematics in Technology	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5813	Assessment in Science Education	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
These 12 hours could also be used to satisfy specialization coursework for the MS in Teaching, Learning, and Leadership with an option in Mathematics/Science Education degree.		
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Learning and Motivation, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Coursework		
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
EPSY 5553	Motivation in Educational Contexts	3
Select one course from the following:		3
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5983	Instructional Effectiveness in Higher Education	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Marketing Analytics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
MKTG 5733	Introduction to Marketing Analytics	3
MKTG 5743	Advanced Marketing Analytics	3
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
MKTG 5243	Base SAS Programming for Database Marketing	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5303	Prescriptive Analytics	
Other graduate courses as approved by the program director		
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mathematics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Admission requirements: Bachelor's degree with a GPA of 3.0 and relevant prerequisite course work to enroll in graduate math classes.		
No grade below B. Minimum 9 hours in residence at OSU.		
12 hours of graduate credit math courses (course numbers 5000 or above). No thesis hours allowed (MATH 5000 or MATH 6000). Credits must be tranferrable to OSU.		12
At most 3 hours can be taken from the following list:		
MATH 5033	History of Mathematics	
MATH 5073	Introduction to Analysis	
MATH 5083	Intermediate Analysis	
MATH 5203	Intermediate Differential Equations	
MATH 5263	Introduction to Partial Differential Equations	
MATH 5273	Complex Variables	
MATH 5343	Introduction to Topology	
MATH 5423	Geometry and Algorithms in Three-Dimensional Modeling	
MATH 5453	Mathematical Interest Theory	
MATH 5503	Introduction to Optimization	
MATH 5513	Introduction to Numerical Analysis	
MATH 5673	Combinatorics	
MATH 5713	Number Theory	
MATH 5753	Introduction to Cryptography	
MATH 5803	Groups and Representations	
Recommended courses for PhD students:		
MATH 5023	Advanced Linear Algebra	
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5143	Real Analysis I	
Recommended courses for electrical engineering students interested in Artificial Intelligence:		
MATH 5073	Introduction to Analysis	
MATH 5513	Introduction to Numerical Analysis	
MATH 5533	Matrix Methods in Machine Learning	
MATH 5553	Numerical Analysis for Linear Algebra	
Recommended courses for students in math education and teaching undergraduate mathematics		
MATH 5003	Abstract Algebra I	
MATH 5023	Advanced Linear Algebra	
MATH 5083	Intermediate Analysis	
MATH 5913	Introduction to Research in Mathematics Education	
Recommended for any student pursuing a graduate certificate.		
MATH 5023	Advanced Linear Algebra	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Medical Sciences, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 19

Code	Title	Hours
Required Courses		
BIOM 5122	Introduction and Survey of Human Structure	2
BIOM 5215	Medical Biochemistry	5
BIOM 5316	Medical Microbiology and Immunology	6
BIOM 5616	Graduate Biomedical Physiology	6
Total Hours		**19**

Must maintain a GPA of 3.0 in all courses applicable to the GCRT-MSCI Plan of Study.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Museum and Curatorial Studies, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Core Courses		
HIST 5053	Museum Studies	3
ART 5810	Museum Studies Internship	3
or HIST 5030	Public History Internship	
Hours Subtotal		**6**
Guided Electives		
Select 6 hours of the following: [1]		6
HIST 5033	Introduction to Public History	
HIST 5063	Historic Preservation	
HIST 5073	Digital Methods in History	
ART 5813	Museum Exhibition	
ART 5723	History of Museums and Collecting	
ART 5733	Museum Education	
Hours Subtotal		**6**
General Electives		
Select 3 hours of graduate-level electives: [2]		3
Hours Subtotal		**3**
Total Hours		**15**

1

Students must choose one HIST class and one ART class.

2

May include additional hours of internship. May include History, Art History, Business Administration, Education, Zoology, among others, and are subject to the approval of the program coordinator.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Neuroscience, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Core Courses		
PSYC 5073	Principles of Neuroscience	3
or BIOL 5073	Principles of Neuroscience	
or BIOM 5983	Principles of Neuroscience	
Select one of the following:		3
HHP 5063	Neuroanatomy	
BIOM 5993	Principles of Neuroanatomy	
Electives		
Select six hours from the following (select from appropriate section):		6
Stillwater and/or Tulsa offerings		
BIOL 5293	Behavioral Neuroendocrinology	
CHEM 6303	Physical Organic Chemistry	
ECEN 5783	Medical Imaging	
HDFS 5213	Lifespan Development	
HDFS 5283	Developmental Disabilities	
HHP 5923	Readings in Neurophysiology	
HHP 5823	Applied Neuromuscular Physiology	
PSYC 5823	Cognitive Processes	
PSYC 6483	Neurobiological Psychology	
PSYC 6583	Developmental Psychobiology	
CHS/Tulsa offerings		
BIOM 6513	Neuropharmacology	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
BIOM 6543	Environmental Toxins in the Brain	
BIOM 6583	Neuroinflammation	
BIOM 6663	Neuroethology	
BIOM 6010	Topics in Biomedical Sciences	
BIOM 6183	Cellular and Molecular Biology of Pain	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Non-Profit Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
MGMT 5093	Management of Nonprofit Organizations	3
MGMT 5163	Fundraising for Nonprofit Organizations	3
Hours Subtotal		**6**
Electives		
Select 6 hours from the following:		6
MGMT 5031	Leading Organizational Change	
MGMT 5051	Creating Ethical Work Places	
MGMT 5061	Managing Confrontations	
MGMT 5083	Corporate and Social Responsibility	
MGMT 5533	Leadership Challenges	
MGMT 5563	Crisis in Organizations	
MGMT 5713	Negotiation and Third-Party Dispute Resolution	
EEE 5403	Social Entrepreneurship	
EEE 5603	Entrepreneurship Empowerment in South Africa	
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Online Teaching, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
EDTC 5103	Advanced Computing Applications in Education	3
EDTC 5153	Computer-Based Instruction Development	3
Three hours from:		3
EDTC 5503	Facilitating Online Learning	
or OCED 5673	Distance Learning in Occupational Education	
EDTC 5720	Educ Workshop	3
Hours Subtotal		**12**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Program Evaluation, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
REMS 5013	Research Design and Methodology	3
REMS 6373	Program Evaluation	3
REMS 6383	Program Evaluation II	3
Select 3 hours from the following:		3
SCFD 5913	Introduction to Qualitative Inquiry	
SCFD 6123	Qualitative Research I	
Similar courses from related disciplines will be considered as recommended by the student's advisory committee.		
Hours Subtotal		**12**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Public Health in Rural and Underserved Communities, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses:		
MPH 5653	Foundations of Public Health Education and Promotion	3
MPH 5683	Health Behavior Theory and Practice for Public Health	3
Hours Subtotal		**6**
Electives		
Select two courses:		6
MPH 5133	Environmental Health	
MPH 5323	General Epidemiology	
MPH 5453	Cultural Issues in Health	
HCA 5013	Survey of Health Care Administration	
Hours Subtotal		**6**
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Quantum Information Science, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Minimum Grade Point Average in Coursework: 2.00
Total Hours: 12

Code	Title	Hours
PHYS 5503	Frontiers of Quantum Information Science	3
PHYS 5613	Quantum Mechanics I	3
PHYS 5663	Solid State Physics I	3
PHYS 6423	Quantum Optics	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Recreation and Leisure Management, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required course		
RMRT 5453	Recreation Management and Recreational Therapy Experiential Learning Lab	3
Electives		
Choose one course from each group:		
Elective course A		
Select one course:		3
RMRT 5030	Field Problems in Recreation Management	
RMRT 5423	Supervision of Recreation Management People and Programs	
RMRT 5443	Social Foundations of Recreation Management	
Elective course B		
Select one course:		3
RMRT 5113	Graduate Internship in Recreation Management	
RMRT 5403	Outdoor Recreation	
RMRT 5513	Recreation and Leisure Education	
RMRT 5703	Areas and Facilities in Recreation Management Services	
RMRT 5713	Campus Recreation, Intramurals, and Sport	
Elective course C		
Select one course:		3
RMRT 5013	Recreation and a Technologically Advanced Society	
RMRT 5020	Workshop in Recreation Management	
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	
RMRT 5033	Recreation Specialization and Serious Leisure	
RMRT 5413	Organization and Administration of Recreation and Leisure Services	
RMRT 5943	Grant Writing and Nonprofit Management	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

School Library Certification, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Required Courses		
LBSC 5113	Selection and Organization of Informational and Educational Resources	3
LBSC 5613	Library Networks and Databases	3
LBSC 5823	Administration of School Library Media and Technology Programs	3
CIED 5353	Literature for Children, Adolescents and Adults	3
CIED 5443	Teaching Reading with Literature	3
EDTC 5103	Advanced Computing Applications in Education	3
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Special Education, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Select six courses from the following:		18
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities	
SPED 5743	Planning, Compliance and Current Practices	
SPED 5883	Classroom and Behavior Management	
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	
SPED 5993	Culturally Responsive Teaching in Special Education	
SPED 5783	Assessing Students with Disabilities	
SPED 5723	Transition Into Adulthood for Individuals with Disabilities	
SPED 5123	Characteristics and Teaching Methods for Students with Autism Spectrum Disorders	
CIED 5473	Reading & Writing Difficulties	
SPED 5683	Models of Instruction in the Inclusive Classroom	
SPED 5643	Working with Families of Students with Diverse Needs	
Total Hours		**18**

Admission Requirements

Admission to the 18-hour Special Education Graduate Certificate Program will require the following:

- Successful completion of a bachelor's degree with a transcript documenting 3.0 or higher GPA in a Bachelors degree from an accredited institution
- A written Statement of Goals
- A resume/vita
- A 3.00 GPA on graduate work completed before applying to the OSU SPED program

An applicant who does not meet criteria for admission can be considered for provisional/probational admission. Provisional admission will constitute that applicants may be accepted on a provisional admission, potentially requiring candidates to take additional coursework/leveling courses as a prerequisite to the listed graduate certificate courses. Candidates admitted on a provisional basis will be reviewed for full admission pending completion of prerequisite coursework, earning a minimum of a "B" grade in all prerequisite coursework. Candidates admitted on a probational basis will be reviewed for full admission pending completion of initial graduate certificate coursework with an average 3.0 GPA.

Students may transfer up to 3 credit hours of graduate level special education coursework to the graduate certificate from an accredited college/university (if taken within 3 years prior to 18-hour graduate certificate application). The courses must have been completed with a letter grade of a "B" or better. All transfer credits must be approved by the student's advisor and/or special education program coordinator.

Retention in the program requires students to maintain the Graduate College's requirement of a GPA of 3.0 to maintain good standing (see http://gradcollege.okstate.edu/current_student/academic_progress.html (https://nam04.safelinks.protection.outlook.com/?url=http%3A%2F%2Fgradcollege.okstate.edu%2Fcurrent_student%2Facademic_progress.html&data=02%7C01%7Cjeff.packham%40okstate.edu%7C07b161783a5043af181708d7a394db20%7C2a69c91de8494e34a230cdf8b27e1%2B0nCyscez8rReg7o0Gg%3D&reserved=0)).

Completion of the Graduate Certificate in Special Education requires completion of the coursework in good standing (GPA of B, or 3.0).

Sport Communication, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 15

Code	Title	Hours
Required Courses		
MC 5733	Responsibility in Mass Communication	3
MC 5443	Sports Branding	3
Hours Subtotal		**6**
Electives		
Select 9 hours from the following:		9
MC 5143	Diversity In Sports Media	
MC 5843	Sport Fanship	
MC 5560	Specialized Sports Media Applications	
MC 5883	Media Management	
MC 5253	International Mass Communication	
MC 5163	Mass Communication Law	
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5113	Methods of Research in Mass Communication	
Hours Subtotal		**9**
Total Hours		**15**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Statistical Methods and Analyses in Educational and Behavioral Sciences, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6663	Applied Multivariate Research in Behavioral Studies	3
REMS 6683	Multilevel Modeling Methods in Education	3
or REMS 6693	Structural Equation Modeling for Behavioral and Educational Research	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Substance Abuse Counseling, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 18

Code	Title	Hours
Required Core		
CPSY 5673	Substance Abuse Counseling	3
CPSY 5773	Substance Abuse Counseling Theories	3
CPSY 5783	Substance Abuse Psychopharmacology	3
HDFS 5673	Family Dynamics of Addiction	3
HDFS 5683	Spirituality and Aging	3
CPSY 5793	Substance Abuse Counseling Internship	3
Total Hours		**18**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Supply Chain and Logistics, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
IEM 5763	Supply Chain Strategy	3
IEM 5613	Integrated Manufacturing Control Systems	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5203	Facility Location, Warehousing and Transportation	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching English to Speakers of Other Languages, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
ENGL 5130	Studies in English Grammar	3
ENGL 5243	Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Hours Subtotal		**9**
Sample Elective Courses		
Select 3 hours from the following:		3
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5143	Descriptive Linguistics	
Hours Subtotal		**3**
Total Hours		**12**

Other Requirements

- Minimum of 12 credit hours, with three required courses and one elective course chosen from a group of courses offered by the English Department.
- No more than 9 hours of coursework taken as a non-degree seeking student.

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Tribal Health Care Administration, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total hours: 12

Code	Title	Hours
Required Courses		
HCA 5333	American Indian & Alaska Natives Healthcare	3
HCA 5343	American Indian and Alaska Natives Health Care Policy	3
HCA 5353	Tribal Sovereignty	3
Select one of the following:		3
HCA 5363	American Indian and Alaska Native Leadership and Ethics	
HCA 5373	Administrative Dimensions of American Indian and Alaska Natives Health	
HCA 5383	Tribal Health Cultural Dimensions	
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Workforce and Adult Education, GCRT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 12

Code	Title	Hours
Required Courses		
WAED 5013	Foundations and Characteristics of Adult Learning	3
WAED 5123	Administration & Evaluation of Workforce and Adult Education	3
WAED 5313	Overview of Workforce and Adult Education	3
WAED 5353	Instructional Strategies for Adults	3
Total Hours		**12**

Graduate College Certificate Requirements

Learn more about Graduate College 2025-2026 Graduate Certificate Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Master's Degree Programs

- Accounting Systems: Cyber Audit, MS (p. 3137)
- Accounting Systems: Data Analytics, MS (p. 3138)
- Accounting, MS (p. 3139)
- Accounting: Corporate Finance, MS (p. 3140)
- Accounting: Data Analytics & Systems, MS (p. 3141)
- Accounting: Financial Reporting & Auditing, MS (p. 3142)
- Accounting: Research Methods, MS (p. 3143)
- Accounting: Tax, MS (p. 3144)
- Aging Studies, MS (p. 3145)
- Agricultural Communications, MS (p. 3146)
- Agricultural Economics, MS (p. 3147)
- Agricultural Education and Leadership, MS (p. 3149)
- Animal Science, MS (p. 3150)
- Applied Statistics, MS (p. 3151)
- Art History, MA (p. 3152)
- Artificial Intelligence: Computer Engineering, MS (p. 3153)
- Artificial Intelligence: Computer Science, MS (p. 3154)
- Artificial Intelligence: Health Care Administration, MS (p. 3155)
- Athletic Training, MAT (p. 3156)
- Aviation and Space, MS (p. 3157)
- Biochemistry and Molecular Biology, MS (p. 3158)
- Biomedical Sciences, MS (p. 3159)
- Biosystems Engineering, MS (p. 3162)
- Business Administration, MBA (p. 3163)
- Business Analytics and Data Science, MS (p. 3165)
- Business Analytics and Data Science: Advanced Data Science, MS (p. 3166)
- Business Analytics and Data Science: Cybersecurity Analytics, MS (p. 3167)
- Business Analytics and Data Science: Health Analytics, MS (p. 3168)
- Business Analytics and Data Science: Marketing Analytics, MS (p. 3169)
- Chemical Engineering, MS (p. 3170)
- Chemistry, MS (p. 3171)
- Civil Engineering, MS (p. 3172)
- Communication Sciences and Disorders, MS (p. 3173)
- Comparative Biomedical Sciences, MS (p. 3174)
- Computer Science, MS (p. 3175)
- Counseling Psychology, MS (p. 3176)
- Counseling: Mental Health Counseling, MS (p. 3177)
- Counseling: School Counseling, MS (p. 3179)
- Data Science: Engineering, MS (p. 3181)
- Design and Merchandising: Apparel Design and Production, MS (p. 3182)
- Design and Merchandising: Digital Design, MS (p. 3183)
- Design and Merchandising: Interior Design, MS (p. 3184)
- Design and Merchandising: Merchandising, MS (p. 3185)
- Design and Merchandising: Retail Merchandising Leadership, MS (p. 3186)
- Dietetics, MS (p. 3187)
- Economics, MS (p. 3188)
- Educational Leadership Studies: Higher Education, MS (p. 3189)
- Educational Leadership Studies: School Administration, MS (p. 3190)
- Educational Leadership Studies: Student Affairs, MS (p. 3191)
- Educational Leadership Studies: Workforce and Adult Education, MS (p. 3192)
- Educational Psychology: Educational Psychology, MS (p. 3193)
- Educational Psychology: Research, Evaluation, Measurement and Statistics, MS (p. 3194)
- Educational Psychology: School Psychometrics, MS (p. 3195)
- Educational Technology: Educational Technology, MS (p. 3196)
- Educational Technology: School Library Media, MS (p. 3197)
- Electrical Engineering, MEN (p. 3198)
- Electrical Engineering, MS (p. 3199)
- Engineering and Technology Management, MS (p. 3200)
- Engineering Technology: Fire Safety and Explosion Protection, MS (p. 3201)
- Engineering Technology: Mechatronics & Robotics, MS (p. 3202)
- English, MA (p. 3204)
- English: Creative Writing, MFA (p. 3205)
- English: Professional Writing, MA (p. 3206)
- English: Teaching English to Speakers of Other Languages, MA (p. 3208)
- Entomology and Plant Pathology: Entomology, MS (p. 3210)
- Entomology and Plant Pathology: Plant Pathology, MS (p. 3211)
- Entrepreneurship, MS (p. 3212)
- Environmental Engineering, MS (p. 3213)
- Environmental Science, MS (p. 3214)
- Environmental Science: Environmental Management Professional Science Masters, PSM (p. 3215)
- Family and Community Services, MS (p. 3216)
- Family and Consumer Sciences Education, MS (p. 3217)
- Family Financial Planning, MS (p. 3218)
- Fire and Emergency Management Administration, MS (p. 3219)
- Food Science, MS (p. 3221)
- Forensic Sciences, MS (p. 3222)
- Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS (p. 3225)
- Forensic Sciences: Forensic Science Administration, MS (p. 3227)
- General Agriculture: Agribusiness, MAG (p. 3228)
- General Agriculture: Agricultural Leadership, MAG (p. 3230)
- Geography, MS (p. 3231)
- Geology, MS (p. 3233)
- Geoscience, MPSM (p. 3235)
- Global Health, MS (p. 3237)
- Global Studies, MS (p. 3238)
- Graphic Design, MFA (p. 3239)
- Health and Human Performance: Applied Exercise Science, MS (p. 3240)
- Health and Human Performance: Health Promotion, MS (p. 3241)
- Health and Human Performance: Physical Education, MS (p. 3242)
- Health Care Administration, MS (p. 3243)
- History, MA (p. 3244)
- Horticulture, MS (p. 3245)

- Hospitality and Tourism Management, MS (p. 3246)
- Human Development and Family Science: Aging Sciences, MS (p. 3248)
- Human Development and Family Science: Applied Human Services, MS (p. 3249)
- Human Development and Family Science: Developmental and Family Sciences, MS (p. 3250)
- Human Development and Family Science: Early Childhood Education, MS (p. 3251)
- Human Development and Family Science: Marriage and Family Therapy, MS (p. 3252)
- Industrial Engineering and Management, MS (p. 3254)
- Industrial Engineering and Management: Operations Research and Analytics, MS (p. 3255)
- Industrial Engineering and Management: Supply Chain and Logistics, MS (p. 3256)
- Integrative Biology, MS (p. 3257)
- Interdisciplinary Studies, MS (p. 3258)
- International Agriculture, MAG (p. 3259)
- International Agriculture, MS (p. 3260)
- Management Information Systems, MS (p. 3262)
- Management Information Systems: Big Data Analytics, MS (p. 3263)
- Management Information Systems: Cybersecurity, MS (p. 3264)
- Management Information Systems: Health Analytics, MS (p. 3265)
- Mass Communications, MS (p. 3266)
- Materials Science and Engineering, MEN (p. 3268)
- Materials Science and Engineering, MS (p. 3269)
- Mathematics, MS (p. 3272)
- Mechanical and Aerospace Engineering, MEN (p. 3274)
- Mechanical and Aerospace Engineering, MS (p. 3275)
- Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS (p. 3276)
- Medical Sciences, MS (p. 3277)
- Microbiology, Cell and Molecular Biology, MS (p. 3278)
- Music: Applied Music, MM (p. 3279)
- Music: Conducting, MM (p. 3280)
- Music: Multiple Woodwinds, MM (p. 3281)
- Natural Resource Ecology and Management, MS (p. 3282)
- Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS (p. 3283)
- Natural Resource Ecology and Management: Forest Resources, MS (p. 3284)
- Natural Resource Ecology and Management: Rangeland Ecology and Management, MS (p. 3285)
- Natural Resource Ecology and Management: Wildlife Ecology and Management, MS (p. 3286)
- Nutritional Sciences: Dietetics Practice, MS (p. 3287)
- Nutritional Sciences: Dietetics Research, MS (p. 3288)
- Nutritional Sciences: Nutrition, MS (p. 3290)
- Peace, Conflict, and Security Studies, MA (p. 3292)
- Petroleum Engineering, MS (p. 3293)
- Philosophy, MA (p. 3294)
- Physician Assistant Studies, MS (p. 3295)
- Physics, MS (p. 3296)
- Physics: Optics and Photonics, MS (p. 3297)
- Plant and Soil Sciences, MS (p. 3298)
- Plant Biology, MS (p. 3299)
- Politics and Policy Studies, MA (p. 3300)
- Public Health, MPH (p. 3301)
- Public Health: Rural and Underserved Populations, MPH (p. 3302)
- Quantitative Finance, MS (p. 3304)
- Recreation Management and Recreational Therapy, MS (p. 3305)
- Social Foundations of Education, MA (p. 3306)
- Sociology, MS (p. 3307)
- Statistics, MS (p. 3308)
- Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS (p. 3309)
- Teaching, Learning and Leadership: Gifted and Talented Education, MS (p. 3310)
- Teaching, Learning and Leadership: K-12 Education, MS (p. 3311)
- Teaching, Learning and Leadership: Mathematics/Science Education, MS (p. 3313)
- Teaching, Learning and Leadership: Reading and Literacy, MS (p. 3314)
- Teaching, Learning and Leadership: Special Education, MS (p. 3315)
- Teaching, Learning and Leadership: Workforce and Adult Education, MS (p. 3316)
- Theatre, MA (p. 3317)

Accounting Systems: Cyber Audit, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Courses		
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
MSIS 5243	Information Technology Forensics and Incident Response	3
MSIS 5253	Advanced System Certification and Accreditation	3
MSIS 5393	Advanced Spreadsheet Modeling	3
MSIS 5683	Advanced Analytics Technologies	3
Hours Subtotal		**18**
Select one of the following:		3
MSIS 5233	Advanced Applied Ethical Hacking	
MSIS 5673	Descriptive Analytics and Visualization	
Select 9 hours of 5000-level ACCT courses		9
Hours Subtotal		**12**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting Systems: Data Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Courses		
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
MSIS 5393	Advanced Spreadsheet Modeling	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5663	Advanced Data Wrangling	3
MSIS 5303	Prescriptive Analytics	3
Hours Subtotal		**18**
Electives		
Select 9 hours from 5000-level ACCT courses		9
Select one of the following:		3
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5633	Predictive Analytics Technologies	
5000-level MSIS Analytics Course		
Hours Subtotal		**12**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Total Hours: 30

Code	Title	Hours
Core		
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
ACCT 5003	Advanced Federal Income Taxation	3
Hours Subtotal		**9**
Degree requirements		
ACCT 5213	Financial Reporting II	3
or ACCT 5143	Advanced Topics in Financial Reporting	
ACCT 5223	Financial Reporting III	3
ACCT 5333	Cost Accounting	3
ACCT 5343	Accounting Information Systems and Data Analytics Tools	3
ACCT 5353	Federal Income Taxation	3
ACCT 5453	Ethics for Public Accountants	3
ACCT 5503	Advanced Auditing	3
Hours Subtotal		**21**
Total Hours		**30**

Additional Requirements

- Electives and course substitutions require approval from the MS Coordinator.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting: Corporate Finance, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		**9**
Option Requirements/Electives		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset [1]	3
MSIS 5393	Advanced Spreadsheet Modeling	3
FIN 5343	Valuation and Financial Modeling	3
FIN 5003	Introduction to Energy Business	3
or FIN 5363	Energy Finance	
FIN 5053	Theory and Practice of Financial Management	3
ACCT 5603	Advanced Accounting-based Information Systems	3
Choose six hours from the following:		6
ACCT 5980	CPA Review	
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business	
FIN 5363	Energy Finance	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5303	Prescriptive Analytics	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
ACCT 5723	Expanding Accounting Horizons in the US [1]	
ACCT 5763	International Accounting Abroad [1]	
Non-ACCT Travel Course [1]		
Hours Subtotal		**24**
Total Hours		**33**

1

Only three hours of degree credit are available for travel courses taken as electives.

Additional Requirements

- Other electives require approval from the MS Coordinator.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting: Data Analytics & Systems, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		**9**
Option Requirements/Electives		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset [1]	3
MSIS 5393	Advanced Spreadsheet Modeling [2]	3
MSIS 5303	Prescriptive Analytics [2]	3
ACCT 5603	Advanced Accounting-based Information Systems	3
MSIS 5643	Graduate Database Management	3
Select 9 hours from the following		9
ACCT 5980	CPA Review	
ACCT 5133	Oil and Gas Accounting	
ACCT 5143	Advanced Topics in Financial Reporting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting [4]	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business [2]	
FIN 5053	Theory and Practice of Financial Management [2]	
FIN 5363	Energy Finance [2]	
FIN 5343	Valuation and Financial Modeling	
MSIS 5253	Advanced System Certification and Accreditation [2]	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5633	Predictive Analytics Technologies [2]	
MSIS 5673	Descriptive Analytics and Visualization [2]	
Hours Subtotal		**24**
Total Hours		**33**

1

Only three hours of elective credit for travel courses will be applied toward degree credit.

Additional Requirements

- Other electives require approval from the MS Coordinator.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting: Financial Reporting & Auditing, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 34

Code	Title	Hours
Core		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		**9**
Option Requirements/Electives		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset [1]	3
MSIS 5393	Advanced Spreadsheet Modeling [2]	3
ACCT 5133	Oil and Gas Accounting	3
ACCT 5503	Advanced Auditing	3
ACCT 5603	Advanced Accounting-based Information Systems	3
ACCT 5980	CPA Review	4
Choose 6 hours from the following:		6
ACCT 5133	Oil and Gas Accounting	
ACCT 5833	Graduate Internship in Accounting	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business	
FIN 5053	Theory and Practice of Financial Management	
FIN 5363	Energy Finance	
FIN 5343	Valuation and Financial Modeling	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5303	Prescriptive Analytics	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
ACCT 5723	Expanding Accounting Horizons in the US [1]	
ACCT 5763	International Accounting Abroad [1]	
Non-ACCT Travel Course [1]		
Hours Subtotal		**25**
Total Hours		**34**

1

Only three hours of elective credit for travel courses will be applied toward degree credit.

Additional Requirements

- Other electives require approval from the MS Coordinator.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the DAS of CF concentration.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting: Research Methods, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core		
Summer		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset [1]	3
MSIS 5393	Advanced Spreadsheet Modeling [2]	3
Fall		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5103	Seminar in Contemporary Accounting Theory I	3
ACCT 5113	Financial Accounting Research	3
or ACCT 5013	Tax Research	
Spring		
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		**18**
Option Requirements/Electives		
Select 3 hours of the following:		3
ACCT 5503	Advanced Auditing	
ACCT 5603	Advanced Accounting-based Information Systems	
ACCT 5043	Taxation of Pass-Through Entities	
ACCT 5053	Corporate Taxation	
STAT 5013	Statistics for Experimenters I	3
Select 6 hours from the following:		6
ECON 5213	Introduction to Econometrics	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5543	Applied Regression Analysis	
FIN 5223	Investment Theory and Strategy	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
AGEC 5213	Econometric Methods	
STAT 5193	SAS and R Programming	
Select 3 hours from the following:		3
ACCT 5994	CPA Review [1]	
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business	
FIN 5363	Energy Finance	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5303	Prescriptive Analytics	
MSIS 5600	Special Projects in Business Information Systems	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
ACCT 5603	Advanced Accounting-based Information Systems	
FIN 5053	Theory and Practice of Financial Management	
FIN 5343	Valuation and Financial Modeling	
Or any of the STAT, ECON, REMS, FIN courses listed as possible selections above.		
Hours Subtotal		**15**
Total Hours		**33**

1 If ACCT 5994 is taken, total hours for degree increase by one.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Accounting: Tax, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 34

Code	Title	Hours
Core		
ACCT 5003	Advanced Federal Income Taxation	3
ACCT 5113	Financial Accounting Research	3
ACCT 5153	Financial Statement Analysis	3
Hours Subtotal		**9**
Option Requirements/Electives		
ACCT 5093	Reimagine: Innovative Accounting and Analytics Mindset [1]	3
MSIS 5393	Advanced Spreadsheet Modeling	3
ACCT 5013	Tax Research	3
ACCT 5043	Taxation of Pass-Through Entities	3
or ACCT 5053	Corporate Taxation	
ACCT 5563	Special Topics in Taxation	3
ACCT 5980	CPA Review	4
Choose 6 hours from the following:		6
ACCT 5133	Oil and Gas Accounting	
ACCT 5503	Advanced Auditing	
ACCT 5833	Graduate Internship in Accounting	
EEE 5233	Ideation, Creativity & Innovation	
FIN 5003	Introduction to Energy Business	
FIN 5053	Theory and Practice of Financial Management	
FIN 5363	Energy Finance	
FIN 5343	Valuation and Financial Modeling	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5303	Prescriptive Analytics	
MSIS 5600	Special Projects in Business Information Systems	
ACCT 5603	Advanced Accounting-based Information Systems	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
ACCT 5723	Expanding Accounting Horizons in the US [1]	
ACCT 5763	International Accounting Abroad [1]	
Non-ACCT Travel Course [1]		
Total Hours		**34**

1

Only three hours of elective credit for travel courses will be applied toward degree credit.

Additional Requirements

- Other electives require approval from the MS Coordinator.
- Students who have already taken ACCT 5003 for credit as ACCT 4033 or a course equivalent at another institution may substitute an elective for ACCT 5003. The elective must have an ACCT prefix if in the Data Analytics and Systems or Corporate Finance concentration.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Aging Studies, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Capstone Experience Plan

Total Hours: 30

Code	Title	Hours
Block 1: Foundations of Gerontology		
HDFS 5403	Foundations in Integrative Aging Studies	3
HDFS 5413	Aging in Human Development	3
Block 2: The Aging Individual		
Select 3 hours of the following:		3
HDFS 5463	Biological Principles of Aging	
HDFS 5593	Sexuality & Aging	
HDFS 5683	Spirituality and Aging	
HDFS 5723	Socioemotional and Cognitive Well-being Throughout Adulthood	
HDFS 5110	Directed Study in HDFS	
Block 3: Aging in Context		
Select 3 hours of the following:		3
HDFS 5053	Gerontechnology	
HDFS 5313	Creativity and Aging	
HDFS 5493	Aging and Diverse Families	
EDHS 5543	Interdisciplinary Perspectives in Environments in Aging	
HDFS 5110	Directed Study in HDFS	
Block 4: Translational Practice in Gerontology		
Select 3 hours of the following:		3
EDHS 5533	Aging Policy and Advocacy	
EDHS 5633	Applied Research Methods and Evaluation of Aging Programs	
HDFS 5733	Implementation of Community Programs for Older Adults	
HDFS 5110	Directed Study in HDFS	
Block 5: Culminating Experience in Gerontology		
HDFS 5163	Master's Capstone in HDFS	3
Electives		
Choose 12 hours of electives:		12
Electives must be selected from any block and tailored to the student's future goals.		
Total Hours		**30**

Thesis Plan

Total Hours: 33

Code	Title	Hours
Block 1: Foundations of Gerontology		
HDFS 5403	Foundations in Integrative Aging Studies	3
HDFS 5413	Aging in Human Development	3
Block 2: The Aging Individual		
Select 3 hours of the following:		3
HDFS 5463	Biological Principles of Aging	
HDFS 5593	Sexuality & Aging	
HDFS 5683	Spirituality and Aging	
HDFS 5110	Directed Study in HDFS	
Block 3: Aging in Context		
Select 3 hours of the following:		3
HDFS 5053	Gerontechnology	
HDFS 5313	Creativity and Aging	
HDFS 5493	Aging and Diverse Families	
EDHS 5543	Interdisciplinary Perspectives in Environments in Aging	
HDFS 5110	Directed Study in HDFS	
Block 4: Translational Practice in Gerontology		
Select 3 hours of the following:		3
EDHS 5533	Aging Policy and Advocacy	
EDHS 5633	Applied Research Methods and Evaluation of Aging Programs	
HDFS 5733	Implementation of Community Programs for Older Adults	
HDFS 5110	Directed Study in HDFS	
Block 5: Culminating Experience in Gerontology		
HDFS 5000	Master's Thesis	6
Electives		
Choose 12 hours of electives:		12
Electives must be selected from any block and tailored to the student's future goals.		
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Agricultural Communications, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Requirements		
Research and Seminar		
AGCM 5000	Research and Thesis	6
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education (or equivalent)	3
Other Required Courses		
AGCM 5103	History and Philosophical Foundations of Agricultural Communications	3
AGCM 5203	Theory and Practice in Agricultural Communications	3
AECL 5863	Methods of Technological Change	3
or AECL 6223	Program Evaluation in Agriculture and Extension	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		**22**
Electives		
Select eight hours		8
With committee approval, electives may be chosen from technical agriculture, journalism, education or other areas; or a combination of areas which most effectively achieve the student's educational goals.		
Hours Subtotal		**8**
Total Hours		**30**

Formal Report Option

Total Hours: 32

Code	Title	Hours
Core Requirements		
Research and Seminar		
AGCM 5000	Research and Thesis	2
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education	3
Other Required Courses		
AGCM 5103	History and Philosophical Foundations of Agricultural Communications	3
AGCM 5203	Theory and Practice in Agricultural Communications	3
AECL 5863	Methods of Technological Change	3
or AECL 6223	Program Evaluation in Agriculture and Extension	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		**18**
Electives		
Select 14 hours		14
With committee approval, electives may be chosen from technical agriculture, journalism, education or other areas; or a combination of areas which most effectively achieve the student's educational goals.		
Hours Subtotal		**14**
Total Hours		**32**

Other Agricultural Communications Requirements

- Totals must include a minimum of 21 hours of 5000 or higher credit and a maximum of 9 transfer credit hours.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Agricultural Economics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Requirements [1]		
AGEC 5101	Research Methodology	1
AGEC 5103	Mathematical Economics	3
AGEC 5403	Production Economics	3
Choose six hours from the following: [2]		6
AGEC 5113	Applications of Mathematical Programming	
AGEC 5213	Econometric Methods	
STAT 5543	Applied Regression Analysis	
Choose six additional hours in Agricultural Economics at the 5000- or 6000-level (excluding AGEC 5000 and courses defined as mutually exclusive to 4000-level courses) with a minimum of 3 hours in marketing or prices.		6
Hours Subtotal		**19**
Electives [1]		
Select 11 hours of electives		11
Suggested elective courses		
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5303	Agricultural Market Policy and Organization	
AGEC 5423	Agribusiness Management	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 5733	Food Import Demand and Trade Policy	
ACCT 5113	Financial Accounting Research	
AGIN 5313	Global Food Security and Sustainability	
AGIN 5723	Participatory Systems Modeling	
ECON 5033	Macroeconomic Analysis	
ECON 5173	Energy Economics	
ECON 5603	Global Economics	
FIN 5223	Investment Theory and Strategy	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
IEM 5013	Introduction to Optimization	
SOIL 5213	Precision Agriculture	
Hours Subtotal		**11**
Total Hours		**30**

1

A total of 21 credit hours at 5000- and 6000-level is required.

2

These courses are preferred but ECON 6013 and ECON 6213 are allowed as substitutions.

Formal Report Option

Total Hours: 32

Code	Title	Hours
Core Requirements [1]		
AGEC 5101	Research Methodology	1
AGEC 5103	Mathematical Economics	3
AGEC 5403	Production Economics	3
Choose six hours from the following: [2]		6
AGEC 5113	Applications of Mathematical Programming	
AGEC 5213	Econometric Methods	
STAT 5543	Applied Regression Analysis	
Choose six additional hours in Agricultural Economics at the 5000- or 6000-level (excluding AGEC 5000 and courses defined as mutually exclusive to 4000-level courses) with a minimum of 3 hours in marketing or prices.		6
Hours Subtotal		**19**
Electives [1]		
Select 11 hours of electives		11
Suggested elective courses		
AGEC 5203	Advanced Agricultural Prices	
AGEC 5233	Primary Data Analysis in Economic Research	
AGEC 5303	Agricultural Market Policy and Organization	
AGEC 5423	Agribusiness Management	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5603	Advanced Agricultural Finance	
AGEC 5723	Plan & Pol Devlpmnt	
AGEC 5733	Food Import Demand and Trade Policy	
ACCT 5113	Financial Accounting Research	
AGIN 5313	Global Food Security and Sustainability	
AGIN 5713	Participatory Tools and Processes for Community Engagement	
ECON 5033	Macroeconomic Analysis	
ECON 5173	Energy Economics	
ECON 5603	Global Economics	
FIN 5223	Investment Theory and Strategy	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
IEM 5013	Introduction to Optimization	
SOIL 5213	Precision Agriculture	
Hours Subtotal		**11**
Formal Report		
Two hours		2
Hours Subtotal		**2**
Total Hours		**32**

1

A total of 21 credit hours at 5000- and 6000-level is required.

2

These courses are preferred but ECON 6013 and ECON 6213 are allowed as substitutions.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Agricultural Education and Leadership, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Requirements		
Research or Creative Component		
AECL 5000	Master's Thesis/Report in Agricultural Education, Communications and Leadership	6
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education (Or equivalent)	3
Agricultural Education		
Select six hours from the following:		6
AGED 5813	College Teaching of Agriculture and Natural Resources	
AGED 5823	Advanced Methods of Teaching Agriculture	
AECL 5863	Methods of Technological Change	
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	
AECL 6223	Program Evaluation in Agriculture and Extension	
AGLE 5303	Foundations of Leadership Theory	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		**19**
Electives		
Select 11 hours		11
Hours Subtotal		**11**
Total Hours		**30**

Formal Report Option

Total Hours: 32

Code	Title	Hours
Core Requirements		
Research or Creative Component		
AGED 5102	Creative Component in Agricultural Education	2
Research Methods		
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	3
Statistics		
REMS 5953	Statistical Methods in Education (Or equivalent)	3
Agricultural Education		
Select 6 hours from the following:		6
AGED 5813	College Teaching of Agriculture and Natural Resources	
AGED 5823	Advanced Methods of Teaching Agriculture	
AECL 5863	Methods of Technological Change	
AGED 6103	History and Philosophical Foundations of Agricultural and Extension Education	
AECL 6223	Program Evaluation in Agriculture and Extension	
AGLE 5303	Foundations of Leadership Theory	
Graduate Orientation		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Hours Subtotal		**15**
Electives		
Select 17 hours		17
Hours Subtotal		**17**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Animal Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
ANSI 5000	Master's Research and Thesis	6
ANSI 5110	Seminar	1
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**10**
Select 6 hours of ANSI or FDSC graduate courses (no more than 3 hours of ANSI 5010)		6
Electives		14
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Courses		
ANSI 5110	Seminar	1
STAT 5013	Statistics for Experimenters I	3
ANSI or FDSC Graduate Courses - 12 hours (no more than 3 hours of ANSI 5010 or FDSC 5120).		12
Hours Subtotal		**16**
Elective Graduate Courses - 16 hours		16
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Applied Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Required Coursework		
STAT 5543	Applied Regression Analysis	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5023	Statistics for Experimenters II	3
STAT 5303	Experimental Designs	3
STAT 5253	Mathematical Statistics I	3
STAT 5263	Mathematical Statistics II	3
STAT 5193	SAS and R Programming	3
STAT 5002	Applied Masters Creative Component	2
Hours Subtotal		**23**
Elective Coursework		**9**
STAT 5033	Nonparametric Methods	
STAT 5053	Time Series Analysis	
STAT 5073	Categorical Data Analysis	
Other courses can be used as electives at the discretion of the program committee and the graduate coordinator.		
Hours Subtotal		**9**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Art History, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30[1]

Code	Title	Hours
Graduate-level seminars		
ART 5920	Art History Graduate Seminar	6
Hours Subtotal		**6**
Other Requirements		
ART 5013	Theory and Methods in Art History	3
Select 9 hours related to the student's curricular track or geographic areas.		9
Select 6 hours outside of the art history program but related to the student's area of study.		6
Hours Subtotal		**18**
Thesis		
ART 5000 (Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.)		6
Hours Subtotal		**6**
Total Hours		**30**

1

At least 21 credit hours must be graduate (5000 or 6000) level courses.

Other Thesis Requirements

- Completed master's thesis and oral defense.
  - Thesis and defense will be supervised and evaluated as to its success or failure by a committee of 3 full-time faculty members with graduate college standing.
  - At least 2 members of the committee must be drawn from the art history faculty, with one of those being the committee chair.
- Plan of Study grade-point-average of 3.0.

Non-Thesis Option

Total Hours: 36[2]

Code	Title	Hours
Graduate-level seminars		
ART 5920	Art History Graduate Seminar	6
Hours Subtotal		**6**
Other Requirements		
ART 5013	Theory and Methods in Art History	3
Select 9 hours related to the student's curricular track or geographic areas.		9
Select 12 hours outside of the art history program but related to the student's area of study.		12
Hours Subtotal		**24**
Thesis		
ART 5000 (Offered for variable credit, 1-3 credit hours, maximum of 6 credit hours.)		6
Hours Subtotal		**6**
Total Hours		**36**

2

At least 27 hours of the 36 total must be graduate (5000 or 6000) level courses.

Other Non-Thesis Requirements

- Submission of qualifying paper (after the completion of 27 hours) judged satisfactory by a committee of 3 full-time faculty members with graduate college standing. The qualifying paper must be between 15-20 pages in length. It may take one of the following forms: 1) A research paper on a focused topic (a traditional seminar paper); or 2) A scholarly catalog essay. The public presentation may take place in the department as part of the art history roundtable series of talks or at an academic conference.
- Plan of Study grade-point-average of 3.0.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Artificial Intelligence: Computer Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core Courses		
Select at least 9 hours:		9
CS 5723	Artificial Intelligence I	
CS 5783	Machine Learning	
ECEN 5733	Neural Networks	
ECEN 5773	Intelligent Systems	
Hours Subtotal		**9**
Required Courses		
ECEN 5513	Stochastic Systems	3
ECEN 5743	Deep Learning	3
Hours Subtotal		**6**
Elective Courses		
Select at least 18 hours (12 hours must be from Computer Engineering):		*18*
CS 5723	Artificial Intelligence I	
CS 5783	Machine Learning	
CS 5793	Artificial Intell II	
CS 5683	Big Data Analytics	
ECEN 5283	Computer Vision	
ECEN 5733	Neural Networks	
ECEN 5773	Intelligent Systems	
ECEN 5793	Digital Image Processing	
Up to 6 credit hours can be taken as ECEN 5080 from the following topics		
Mobile Robotics		
Applied Numerical Methods with Python for Engineers		
Artificial Intelligence in Engineering		
Hours Subtotal		**18**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Artificial Intelligence: Computer Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core Courses		
Select at least 9 hours:		9
CS 5723	Artificial Intelligence I	
CS 5783	Machine Learning	
ECEN 5733	Neural Networks	
ECEN 5773	Intelligent Systems	
Hours Subtotal		**9**
Required Courses		
CS 5513	Numerical Computation	3
CS 5793	Artificial Intell II	3
Hours Subtotal		**6**
Elective Courses		
Select at least 18 hours (12 hours must from Computer Science):		*18*
CS 5683	Big Data Analytics	
CS 5753	Representation Learning	
CS 5763	Responsible AI Development and Deployment in Healthcare	
CS 5773	Computational Neuroscience	
CS 5783	Machine Learning	
ECEN 5283	Computer Vision	
ECEN 5513	Stochastic Systems	
ECEN 5733	Neural Networks	
ECEN 5743	Deep Learning	
ECEN 5773	Intelligent Systems	
Hours Subtotal		**18**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Artificial Intelligence: Health Care Administration, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core Courses		
Select at least 9 hours:		9
CS 5723	Artificial Intelligence I	
CS 5783	Machine Learning	
ECEN 5733	Neural Networks	
ECEN 5773	Intelligent Systems	
Hours Subtotal		**9**
Required Courses		
CS 5683	Big Data Analytics	
CS 5763	Responsible AI Development and Deployment in Healthcare	
HCA 5013	Survey of Health Care Administration	
HCA 5063	Health Care Compliance	
HCA 5133	Health Care Informatics	
HCA 5223	Ethics in Healthcare	
Hours Subtotal		**18**
Elective Courses		
Choose one:		
HCA 5263	Patient Safety, Quality Measurement & Improvement	3
or HCA 5993	Clinical Operations Management	
Choose one:		
HCA 5030	Problems and Issues in Global Health	3
or HCA 5103	Introduction to Global Health	
or HCA 5273	Understanding Global Burden of Diseases	
or HCA 5173	Emerging Global Infectious Diseases	
Hours Subtotal		**6**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Athletic Training, MAT

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 59

Code	Title	Hours
Required Courses		
MAT 5103	Emergency Management in Athletic Healthcare	3
MAT 5183	Injury Prevention and Management	3
MAT 5122	Clinical Anatomy for Athletic Training	2
MAT 5223	Therapeutic Modalities	3
MAT 5233	Clinical Evaluation and Diagnosis of the Lower Extremity	3
MAT 5243	Therapeutic Exercise of the Lower Extremity	3
MAT 5202	Athletic Training Practicum I	2
MAT 5315	Clinical Evaluation, Diagnosis, Pathology and Pharmacology of Non-Orthopedic Medical Conditions	5
MAT 5333	Clinical Evaluation and Diagnosis of the Upper Extremity	3
MAT 5343	Therapeutic Exercise of the Upper Extremity	3
MAT 5302	Athletic Training Practicum II	2
MAT 5412	Radiography Evaluation and Assessment	2
MAT 5402	Athletic Training Practicum III	2
MAT 5573	Athletic Healthcare Administration	3
MAT 5553	Research Evaluation and Application	3
MAT 5583	Psychosocial Strategies in Athletic Healthcare	3
MAT 5481	Advanced Athletic Training Techniques	1
MAT 5443	Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine	3
MAT 5502	Athletic Training Practicum IV	2
MAT 5602	Athletic Training Practicum V	2
MAT 5000	Thesis Research & Seminar	6
Total Hours		**59**

Non-Thesis Option

Total Hours: 56

Code	Title	Hours
Required Courses		
MAT 5103	Emergency Management in Athletic Healthcare	3
MAT 5183	Injury Prevention and Management	3
MAT 5122	Clinical Anatomy for Athletic Training	2
MAT 5223	Therapeutic Modalities	3
MAT 5233	Clinical Evaluation and Diagnosis of the Lower Extremity	3
MAT 5243	Therapeutic Exercise of the Lower Extremity	3
MAT 5202	Athletic Training Practicum I	2
MAT 5315	Clinical Evaluation, Diagnosis, Pathology and Pharmacology of Non-Orthopedic Medical Conditions	5
MAT 5333	Clinical Evaluation and Diagnosis of the Upper Extremity	3
MAT 5343	Therapeutic Exercise of the Upper Extremity	3
MAT 5302	Athletic Training Practicum II	2
MAT 5412	Radiography Evaluation and Assessment	2
MAT 5402	Athletic Training Practicum III	2
MAT 5573	Athletic Healthcare Administration	3
MAT 5553	Research Evaluation and Application	3
MAT 5583	Psychosocial Strategies in Athletic Healthcare	3
MAT 5481	Advanced Athletic Training Techniques	1
MAT 5443	Clinical Diagnosis, Evaluation, and Therapeutic Exercise of the Head and Spine	3
MAT 5502	Athletic Training Practicum IV	2
MAT 5602	Athletic Training Practicum V	2
MAT 5000	Thesis Research & Seminar	3
Total Hours		**56**

Additional Master of Athletic Training Requirements

- A minimum of "B" or higher required in all coursework.
- Transfers not allowed in this program.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Aviation and Space, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Required Courses		
AVED 5453	Advanced Aviation Security	3
AVED 5563	Aerospace Leadership and Management	3
AVED 5663	Issues in the Airline/Aerospace Industry	3
AVED 5773	Historical Significance of Aviation	3
AVED 5823	Space Science	3
AVED 5883	Aviation Economics	3
AVED 5893	Aerospace Executive Decision Making	3
AVED 5953	Labor Relations in Aviation and Aerospace	3
AVED 5963	Airport Operations	3
AVED 5973	Aerospace Law	3
AVED 5993	Ethics in Aviation	3
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Biochemistry and Molecular Biology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Coursework		
Combination of core courses and other requirements to equal 24 hours.		24
Required Core Courses		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5120	Biochemistry and Molecular Biology Graduate Research Colloquium [1]	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6110	Seminar	
Plus 2 Advanced (Biochemistry 6000-level courses)		
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
Electives		
BIOC 5723	Introduction to Bioinformatics	
BIOC 5102	Molecular Genetics	
BIOC 5824	Biochemical Laboratory Methods	
BIOC 5930	Advanced Biochemical Techniques	
BIOC 6820	Selected Topics in Biochemistry	
Other 6000-level BIOC courses		
Other Graduate-level courses approved by the Graduate Thesis Advisory Committee		
Additional Requirements		
The student's Graduate Committee must approve the written thesis and an oral exam on the context of the thesis must be passed.		
Hours Subtotal		**24**
Required Research		
BIOC 5000	Research	6
Hours Subtotal		**6**
Total Hours		**30**

1

Course to be taken 1 time each year prior to year of graduation.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Coursework		
Combination of core courses and other requirements to equal 30 hours.		30
Core courses		
BIOC 5002	Research Compliance and Biochemistry Graduate Colloquium	
BIOC 5112	Articulation of Research Logic	
BIOC 5753	Biochemical Principles	
BIOC 5853	Molecular and Integrative Metabolism	
BIOC 6110	Seminar	
Plus 2 Advanced (Biochemistry 6000-level courses)		
BIOC 6723	Signal Transduction	
BIOC 6733	Functional Genomics	
BIOC 6740	Physical Biochemistry	
BIOC 6753	Epigenetics	
BIOC 6763	Nucleic Acids and Protein Synthesis	
BIOC 6773	Protein Structure and Enzyme Function	
BIOC 6783	Biomembranes and Bioenergetics	
BIOC 6793	Plant Biochemistry	
BIOC 6820	Selected Topics in Biochemistry	
Electives		
BIOC 5102	Molecular Genetics	
BIOC 5723	Introduction to Bioinformatics	
BIOC 5824	Biochemical Laboratory Methods	
Other 6000-level BIOC courses (Graduate-level courses approved by the Graduate Coordinator)		
Other Requirements		
The student's Graduate Committee must approve the written formal report and an oral exam must be passed.		
Hours Subtotal		**30**
Required Research		
BIOC 5000	Research	2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Biomedical Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
BIOM 5000	Research & Thesis	6
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		**13**
Optional Electives		
Select 17 hours from the following:		17
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human Structure	
BIOM 5133	Neuroanatomy	
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	
BIOM 6353	Molecular Virology	
BIOM 6363	Immunobiology of Infectious Disease	
BIOM 6413	Graduate General Pathology and Laboratory Medicine	
BIOM 6523	Cardiovascular Physiology and Pharmacology	
BIOM 6543	Environmental Toxins in the Brain	
BIOM 6583	Neuroinflammation	
BIOM 6613	Environmental Physiology	
BIOM 6643	Neurophysiology	
BIOM 6653	Graduate Seminar In Signal Transduction	
BIOM 6663	Neuroethology	
BIOM 6673	Genomics	
BIOM 6705	Advanced Gross Anatomy	
BIOM 6723	Field Techniques in Vertebrate Paleontology	
BIOM 6733	Human Microbiome in Health and Disease	
BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development	
BIOM 6752	Foundations in Medical Cell and Tissue Biology	
BIOM 6762	Foundations in Medical Biochemistry	
BIOM 6771	Foundations in Medical Pharmacology	
BIOM 6781	Foundations in Medical Immunology	
BIOM 6793	Foundations in Medical Microbiology	
BIOM 6800	Critical Readings in Biomedical Sciences	
BIOM 6810	Structure and Function of the Human Cardiovascular System	
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
BIOM 6830	Biomedical Perspectives on Human Hematology	
BIOM 6840	Structure and Function of the Human Musculoskeletal System	
BIOM 6843	Vertebrate Osteology	
BIOM 6850	Structure and Function of the Human Renal System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	
BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6952	Paleohistology Techniques	
BIOM 6962	Evolutionary Biomechanics	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
Hours Subtotal		**17**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Courses		
BIOM 5000	Research & Thesis	2
BIOM 5003	Statistics for Medical Residents	3
BIOM 6662	Research Ethics and Survival Skills for the Biomedical Sciences	2
BIOM 6922	Scientific Communication in Biomedical Sciences	2
Hours Subtotal		**9**
Optional Electives		
Select 23 hours from the following:		23
BIOM 5010	Special Topics in Biomedical Sciences	
BIOM 5020	Biomedical Sciences Seminar	
BIOM 5116	Clinical Anatomy	
BIOM 5122	Introduction and Survey of Human Structure	
BIOM 5133	Neuroanatomy	
BIOM 5215	Medical Biochemistry	
BIOM 5316	Medical Microbiology and Immunology	
BIOM 5616	Graduate Biomedical Physiology	
BIOM 5621	Introduction to Translational Research	
BIOM 5631	Disease Research in Medicine	
BIOM 5641	Cornerstones of Vertebrate Paleontology	
BIOM 5653	Evolutionary Physiology	
BIOM 5663	Graduate Pharmacology	
BIOM 5672	Scientific Outreach Training for Graduate Students	
BIOM 5683	Chronic Inflammation and Cancer Development	
BIOM 5693	Principle Concepts of Cellular and Molecular Immunology	
BIOM 5983	Principles of Neuroscience	
BIOM 5993	Principles of Neuroanatomy	
BIOM 6175	Molcular And Cellular Biology	
BIOM 6183	Cellular and Molecular Biology of Pain	
BIOM 6193	Paleommalogy	
BIOM 6214	Advanced Topics in Medical Biochemistry	
BIOM 6233	Enzyme Analysis	
BIOM 6243	Human Nutrition	
BIOM 6263	Techniques in Molecular Biology	
BIOM 6333	Immunology	
BIOM 6343	Microbial Physiology	
BIOM 6353	Molecular Virology	
BIOM 6363	Immunobiology of Infectious Disease	
BIOM 6413	Graduate General Pathology and Laboratory Medicine	
BIOM 6523	Cardiovascular Physiology and Pharmacology	
BIOM 6543	Environmental Toxins in the Brain	
BIOM 6583	Neuroinflammation	
BIOM 6613	Environmental Physiology	
BIOM 6643	Neurophysiology	
BIOM 6653	Graduate Seminar In Signal Transduction	
BIOM 6663	Neuroethology	
BIOM 6673	Genomics	
BIOM 6705	Advanced Gross Anatomy	
BIOM 6723	Field Techniques in Vertebrate Paleontology	
BIOM 6733	Human Microbiome in Health and Disease	
BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development	
BIOM 6752	Foundations in Medical Cell and Tissue Biology	
BIOM 6762	Foundations in Medical Biochemistry	
BIOM 6771	Foundations in Medical Pharmacology	
BIOM 6781	Foundations in Medical Immunology	
BIOM 6793	Foundations in Medical Microbiology	
BIOM 6800	Critical Readings in Biomedical Sciences	
BIOM 6810	Structure and Function of the Human Cardiovascular System	
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
BIOM 6830	Biomedical Perspectives on Human Hematology	
BIOM 6840	Structure and Function of the Human Musculoskeletal System	
BIOM 6843	Vertebrate Osteology	
BIOM 6850	Structure and Function of the Human Renal System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	
BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
BIOM 6933	Cornerstones of Graduate Biomedical Sciences	
BIOM 6943	Advanced Vertebrate Paleontology	
BIOM 6952	Paleohistology Techniques	
BIOM 6962	Evolutionary Biomechanics	
BIOM 6972	Role of Nicotinic Acetylcholine Receptors in Neuropsychiatric Disorders	
Hours Subtotal		**23**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

Biosystems Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Coursework		
BAE 5501	Seminar	1
Select 23 approved hours, based on Plan of Study		23
Hours Subtotal		**24**
Thesis		
BAE 5000	Master's Research and Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Coursework		
BAE 5501	Seminar	1
Select 31 approved hours, based on Plan of Study.		31
Hours Subtotal		**32**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Administration, MBA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36 (33 for part-time and distance MBA students)

Code	Title	Hours
Degree Core - Required Courses		
MGMT 5113	Individual and Organizational Behavior	3
MGMT 5303	Corporate and Business Strategy	3
ACCT 5183	MBA Financial Reporting	3
ECON 5113	Managerial Economics	3
FIN 5013	Business Finance	3
MKTG 5133	Marketing Management	3
MSIS 5303	Prescriptive Analytics	3
MBA 5100	Professional Development (Professional Development) [1]	1
MBA 5100	Professional Development (Case Consulting) [1]	1
MBA 5100	Professional Development (Practicum/ Internship in Business) [1]	1
MBA 5300	Current Business Topics (Ethics and Corporate Social Responsibility)	1
MBA 5400	Business Practicum (Descriptive Analytics)	1
MBA 5500	Interdisciplinary Inquiry in Business Administration (Project Management)	1
Hours Subtotal		**27**
Electives		
Select 9 hours of 5000-level business courses (not included in the MBA core) from ACCT, BADM, BAN, ECON, EEE, FIN, HTM, LSB, MBA, MGMT, MSIS, and MKTG or other preapproved courses.		9
EEE 5090	Study Abroad In Entrepreneurship	
EEE 5233	Ideation, Creativity & Innovation	
EEE 5123	Entrepreneurship and The Arts	
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5200	Special Topics in Entrepreneurship	
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5333	Launching a Business: The First 100 Days	
EEE 5403	Social Entrepreneurship	
EEE 5493	Entrepreneurship and Architecture	
EEE 5503	Designing, Prototyping, and Testing Creative Products	
EEE 5513	Growing Small and Family Ventures	
EEE 5653	Venture Capital	
EEE 5813	The Entrepreneur: Hero or Villain	
EEE 5863	CIE Scholar Practicum	
EEE 5903	Applied Innovation I	
FIN 5053	Theory and Practice of Financial Management	
FIN 5103	Securities Industry Essentials	
FIN 5153	Corporate Financial Strategy	
FIN 5213	International Business Finance	
FIN 5223	Investment Theory and Strategy	
FIN 5243	Innovations in Quantitative Finance	
FIN 5343	Valuation and Financial Modeling	
FIN 5363	Energy Finance	
FIN 5550	Special Topics in Finance	
FIN 5633	Computational Finance	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5813	Portfolio Management	
FIN 5833	Student Managed Investment Fund	
FIN 5883	Quantitative Financial Applications	
HTM 5233	Convention and Special Event Management	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
HTM 5323	Hospitality and Tourism Financial Management	
HTM 5413	Hospitality and Tourism Human Resources Management	
HTM 5423	Hospitality and Tourism Marketing Management	
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	
HTM 5513	Hospitality and Tourism Strategic Management	
HTM 5850	Special Topics in the Hospitality and Tourism Industry	
LSB 5163	Legal Environment of Business	
LSB 5203	Foundations of Issue and Conflict Management	
LSB 5423	Employment Law	
MGMT 5011	Crucial Interactions	
MGMT 5021	Managing Professional Relationships	
MGMT 5033	Management of Sustainable Enterprises	
MGMT 5041	Performance Management	
MGMT 5083	Corporate and Social Responsibility	
MGMT 5093	Management of Nonprofit Organizations	
MGMT 5123	Org Design & Research	
MGMT 5133	Total Rewards	
MGMT 5153	Talent Development	
MGMT 5163	Fundraising for Nonprofit Organizations	
MGMT 5223	Seminar in Human Resource Management	
MGMT 5313	Project Management	
MGMT 5323	Teams in Organizations	
MGMT 5500	Special Projects in Management	
MGMT 5533	Leadership Challenges	
MGMT 5543	Human Resource Analytics	
MGMT 5643	Sport Management	
MGMT 5673	Advanced Sport Management	
MGMT 5713	Negotiation and Third-Party Dispute Resolution	
MGMT 5823	Talent Acquisition	
MGMT 5843	Advanced Strategic Sports Management	

MGMT 5943	Advanced International Sports Management
MSIS 5033	Information Systems Project Management
MSIS 5133	Advanced Web Based Application Development
MSIS 5213	Cybersecurity Systems Management
MSIS 5253	Advanced System Certification and Accreditation
MSIS 5273	Legal and Ethical Issues in Information Technology
MSIS 5313	Supply Chain Analytics
MSIS 5393	Advanced Spreadsheet Modeling
MSIS 5410	Advanced Topics in Information Assurance
MSIS 5623	Information and Network Technology Management
MSIS 5643	Graduate Database Management
MSIS 5653	Advanced Systems Analysis and Design
MSIS 5663	Advanced Data Wrangling
MSIS 5673	Descriptive Analytics and Visualization
MSIS 5683	Advanced Analytics Technologies
MSIS 5713	Scripting Essentials
MSIS 5773	The Upper Layers of Telecommunications Systems
MKTG 5223	Entrepreneurial Marketing
MKTG 5233	Global Competitive Environment
MKTG 5243	Base SAS Programming for Database Marketing
MKTG 5253	Advanced SAS Programming for Marketing Analytics
MKTG 5443	Social Issues in Marketing Environment
MKTG 5500	Current Topics in Marketing Analytics
MKTG 5543	Social Media Strategies
MKTG 5553	International Marketing Strategy
MKTG 5743	Advanced Marketing Analytics
MKTG 5963	Data Mining and Customer Relationship Management Applications
MKTG 5983	Data Base Marketing
Other graduate courses as approved by program director.	
Hours Subtotal	**9**
Total Hours	**36**

[1]

Waived for part-time and distance MBA students

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 37

Code	Title	Hours
Required Courses		
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5570	Business Analytics Research and Communications II	1
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		**22**
Electives		
Select 15 hours from the following:		15
ACCT 5183	MBA Financial Reporting	
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
BAN 5530	Consulting in Marketing Analytics	
BAN 5541	Using R in Marketing Analytics	
BAN 5551	Optimization Applications in Marketing Analytics	
BAN 5561	Customer Lifetime Value Models in Marketing	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
HCA 5013	Survey of Health Care Administration	
MKTG 5133	Marketing Management	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MSIS 5213	Cybersecurity Systems Management	
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5243	Information Technology Forensics and Incident Response	
MSIS 5303	Prescriptive Analytics	
MSIS 5663	Advanced Data Wrangling	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Advanced Analytics Technologies	
MSIS 5713	Scripting Essentials	
STAT 5013	Statistics for Experimenters I	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
Hours Subtotal		**15**
Total Hours		**37**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science: Advanced Data Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 38

Code	Title	Hours
Required Courses		
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications	1
BAN 5570	Business Analytics Research and Communications II	2
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5503	Statistics for Data Science	3
MSIS 5663	Advanced Data Wrangling	3
Hours Subtotal		**23**
Required Option Core Courses		
MSIS 5223	Programming for Data Science and Analytics II	3
MSIS 5633	Predictive Analytics Technologies	3
Hours Subtotal		**6**
Electives		
Required Option Electives		
Select 6 hours from the following or other courses as approved by the program director:		6
MSIS 5303	Prescriptive Analytics	
MSIS 5683	Advanced Analytics Technologies	
MSIS 5713	Scripting Essentials	
MSIS 5900	Practicum in Management Information Systems	
Select 3 hours from the following or other courses as approved by program director:		3
BAN 5541	Using R in Marketing Analytics	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
MKTG 5243	Base SAS Programming for Database Marketing	
MSIS 5243	Information Technology Forensics and Incident Response	
STAT 5013	Statistics for Experimenters I	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
Hours Subtotal		**9**
Total Hours		**38**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science: Cybersecurity Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 38 (33 for part-time and distance MS Business Analytics and Data Science students)

Code	Title	Hours
Required Core Courses		
BAN 5400	Practicum in Business Analytics [1]	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I) [1]	1
BAN 5570	Business Analytics Research and Communications II [1]	2
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
or STAT 5013	Statistics for Experimenters I	
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5663	Advanced Data Wrangling	3
Hours Subtotal		**23**
Required Option Courses		
MSIS 5213	Cybersecurity Systems Management	3
MSIS 5203	Advanced Infrastructure Development	3
Hours Subtotal		**6**
Electives		
Required Option Electives		
Select 6 hours from the following or other courses as approved by the program director.		6
MSIS 5243	Information Technology Forensics and Incident Response	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5713	Scripting Essentials	
Select 3 hours from the following or other courses as approved by program director.		3
ACCT 5183	MBA Financial Reporting	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5763	Advanced Marketing Research Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
CS 5123	Cloud Computing and Distributed Systems	
CS 5433	Big Data Management	
CS 5683	Big Data Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
HCA 5013	Survey of Health Care Administration	
HCA 5133	Health Care Informatics	
IEM 5013	Introduction to Optimization	
IEM 5063	Network Optimization	
IEM 5703	Discrete System Simulation	
IEM 5633	Advanced Production and Inventory Control	
MKTG 5133	Marketing Management	
MKTG 5243	Base SAS Programming for Database Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
MSIS 5123	Enterprise Resource Planning	
MSIS 5303	Prescriptive Analytics	
MSIS 5413	Advanced Data Science Applications	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Advanced Analytics Technologies	
STAT 5053	Time Series Analysis	
STAT 5063	Statistical Machine Learning with R	
STAT 5073	Categorical Data Analysis	
STAT 5213	Bayesian Analysis	
STAT 5323	Theory of Linear Models I	
STAT 5513	Multivariate Analysis	
Other courses as approved by program director.		
Hours Subtotal		**9**
Total Hours		**38**

1 Waived for part-time and distance MS Business Analytics and Data Science students.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science: Health Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 38

Code	Title	Hours
Required Core Courses		
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5570	Business Analytics Research and Communications II	2
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5663	Advanced Data Wrangling	3
Hours Subtotal		**23**
Required Option Courses		
HCA 5013	Survey of Health Care Administration	3
MSIS 5673	Descriptive Analytics and Visualization	3
Hours Subtotal		**6**
Electives		
Required Option Electives		
Select 6 hours from the following or other courses as approved by the program director.		6
MSIS 5303	Prescriptive Analytics	
MSIS 5663	Advanced Data Wrangling	
MSIS 5683	Advanced Analytics Technologies	
Select 3 hours from the following or other courses as approved by program director.		3
BAN 5541	Using R in Marketing Analytics	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
MKTG 5243	Base SAS Programming for Database Marketing	
MSIS 5243	Information Technology Forensics and Incident Response	
STAT 5013	Statistics for Experimenters I	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
Other courses as approved by program director.		
Hours Subtotal		**9**
Total Hours		**38**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Business Analytics and Data Science: Marketing Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 38

Code	Title	Hours
Required Core Courses		
BAN 5400	Practicum in Business Analytics	2
BAN 5560	Business Analytics Research and Communications (Research and Communications I)	1
BAN 5570	Business Analytics Research and Communications II	2
BAN 5733	Descriptive Business Analytics	3
BAN 5743	Predictive Business Analytics	3
BAN 5753	Advanced Business Analytics	3
MSIS 5503	Statistics for Data Science	3
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5663	Advanced Data Wrangling	3
Hours Subtotal		**23**
Required Option Courses		
BAN 5763	Advanced Marketing Research Analytics	3
MKTG 5253	Advanced SAS Programming for Marketing Analytics	3
Hours Subtotal		**6**
Electives		
Required Option Electives		
Select 6 hours from the following or other courses as approved by the program director.		6
MKTG 5133	Marketing Management	
BAN 5530	Consulting in Marketing Analytics	
BAN 5511	Web Analytics and Digital Marketing	
MKTG 5253	Advanced SAS Programming for Marketing Analytics	
ACCT 5183	MBA Financial Reporting	
Select 3 hours from the following or other courses as approved by program director.		3
BAN 5541	Using R in Marketing Analytics	
BAN 5563	Strategic Marketing and Business Analytics	
BAN 5900	Advanced Practicum in Business Analytics	
ECON 5113	Managerial Economics	
EEE 5863	CIE Scholar Practicum	
FIN 5013	Business Finance	
MKTG 5243	Base SAS Programming for Database Marketing	
MSIS 5243	Information Technology Forensics and Incident Response	
STAT 5013	Statistics for Experimenters I	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
Other courses as approved by program director.		
Hours Subtotal		**9**
Total Hours		**38**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Chemical Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Courses		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
CHE 5303	Introduction to Science and Engineering Research	3
Seminar		
Three hours from:		3
CHE 6010	Chemical Engineering Seminar	
Hours Subtotal		**18**
Electives		
Graduate-approved elective (CHE or other) courses, selected by the student with the approval of the student's advisory committee.		6
Suggested Elective Courses		
CHE 5073	Tissue Engineering	
CHE 5133	Catalysis and Photocatalysis	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
CHE 5323	Electrochemical Engineering	
CHE 5373	Process Simulation	
CHE 5493	Molecular Modeling and Simulation	
CHE 5523	Colloid Processing	
CHE 5603	Membrane Separations	
CHE 5753	Applied Numerical Computing for Scientists and Engineers	
CHE 5773	Computational Fluid-Particle Dynamics	
Hours Subtotal		**6**
Thesis		
CHE 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Chemistry, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Coursework		
CHEM 5001	Introduction to Chemistry Research	1
CHEM 5000	Thesis	6
CHEM 5011	Graduate Seminar	1
CHEM 6010	Research Seminar	5
Hours Subtotal		**13**
Electives		
Select 17 hours from the following:		17
CHEM 5053	Foundations of Physical Chemistry	
CHEM 5063	Foundations of Organic Chemistry	
CHEM 5073	Foundations of Analytical Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5103	Physical and Chemical Separations	
CHEM 5223	Polymer Chemistry	
CHEM 5373	Spectrometric Identification of Organic Compounds	
CHEM 5443	Mechanism and Structure in Organic Chemistry	
CHEM 5563	Chemical Thermodynamics I	
CHEM 5963	Advanced Inorganic Chemistry	
CHEM 6103	Electroanalytical Chemistry	
CHEM 6223	Physical Polymer Science	
CHEM 6420	Special Topics in Organic Chemistry	
CHEM 6650	Selected Topics in Chemistry	
Hours Subtotal		**17**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Civil Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select 24 hours of approved graduate level coursework in consultation with the CIVE Graduate Coordinator (minimum of 18 hours at the 5000 level or higher)		24
Hours Subtotal		**24**
Research Hours		
CIVE 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Creative Component Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select 30 hours of approved graduate level coursework in consultation with the CIVE Graduate Coordinator (minimum of 24 hours at the 5000 level or higher)		30
Hours Subtotal		**30**
Research Hours		
CIVE 5080	Engineering Problems	2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Communication Sciences and Disorders, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 57

Code	Title	Hours
Courses		
Suggested Plan of Study (sequence may change depending on course availability)		
Fall - 1st Year		
CDIS 5193	Motor Speech Disorders	3
CDIS 5713	Fluency Disorders	3
CDIS 5143	Speech Sound Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 1st Year		
CDIS 5153	Neurological Communication Disorders	3
CDIS 5163	Dysphagia	3
CDIS 5113	Developmental Language Disorders	3
CDIS 5210	Advanced Practicum	3
Summer - 1st Year		
CDIS 5420	Augmentative/Alternative Communication	3
or CDIS 5340	Counseling for Speech-Language Pathologists	
CDIS 5210	Advanced Practicum	3
Fall - 2nd Year		
CDIS 5013	Evidence-Based Practice	3
CDIS 5183	Traumatic Brain Injury and Dementia	3
CDIS 5330	Voice and Resonance Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 2nd Year		
CDIS 5243	Disorders of Literacy and Complex Language	3
CDIS 5533	Autism Spectrum Disorder: Assessment & Intervention of Communication Deficits	3
CDIS 5210	Advanced Practicum	3
Hours Subtotal		**51**
Thesis		
CDIS 5000	Masters Research & Thesis	6
Total Hours		**57**

Prerequisite Requirements

- Students with a Bachelor's Degree in a discipline other than communication sciences and disorders must complete 24 semester hours of prerequisite coursework before being admitted to the graduate program. These students should apply to the graduate school as a "Special Student (Non-Degree Seeking)." Prerequisite courses include CDIS 2223, CDIS 3313, CDIS 4313, CDIS 3203, CDIS 3123, CDIS 4023, CDIS 4423 and CDIS 3113. Check individual courses for grade requirements.

Non-Thesis Option

Total Hours: 51

Code	Title	Hours
Courses		
Suggested Plan of Study (sequence may change depending on course availability)		
Fall - 1st Year		
CDIS 5193	Motor Speech Disorders	3
CDIS 5713	Fluency Disorders	3
CDIS 5143	Speech Sound Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 1st Year		
CDIS 5153	Neurological Communication Disorders	3
CDIS 5163	Dysphagia	3
CDIS 5113	Developmental Language Disorders	3
CDIS 5210	Advanced Practicum	3
Summer - 1st Year		
CDIS 5420	Augmentative/Alternative Communication	3
or CDIS 5340	Counseling for Speech-Language Pathologists	
CDIS 5210	Advanced Practicum	3
Fall - 2nd Year		
CDIS 5013	Evidence-Based Practice	3
CDIS 5183	Traumatic Brain Injury and Dementia	3
CDIS 5330	Voice and Resonance Disorders	3
CDIS 5210	Advanced Practicum	3
Spring - 2nd Year		
CDIS 5243	Disorders of Literacy and Complex Language	3
CDIS 5533	Autism Spectrum Disorder: Assessment & Intervention of Communication Deficits	3
CDIS 5210	Advanced Practicum	3
Total Hours		**51**

Prerequisite Requirements

- Students with a Bachelor's Degree in a discipline other than communication sciences and disorders must complete 24 semester hours of prerequisite coursework before being admitted to the graduate program. These students should apply to the graduate school as a "Special Student (Non-Degree Seeking)." Prerequisite courses include CDIS 2223, CDIS 3313, CDIS 4313, CDIS 3203, CDIS 3123, CDIS 4023, CDIS 4423, and CDIS 3113. Check individual courses for grade requirements.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Comparative Biomedical Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Required Courses		
CBSC 5013	Comparative Biomedical Sciences I: Cell & Molecular Biology	3
CBSC 5023	Comparative Biomedical Sciences II: Pathophysiology	3
STAT 5013	Statistics for Experimenters I	3
CBSC 6110	Seminar	2
CBSC 5000	Master's Research and Thesis	6
Hours Subtotal		**17**
Electives		
Select 13 hours of approved electives		13
Hours Subtotal		**13**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Computer Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
Hours Subtotal		**12**
Elective Courses		
Select 12 hours, 9 of which must be CS:		12
Hours Subtotal		**12**
Thesis		
Select 6 hours:		6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
CS 5113	Computer Organization and Architecture	3
CS 5313	Formal Language Theory	3
CS 5323	Design and Implementation of Operating Systems II	3
CS 5413	Data Structures and Algorithm Analysis II	3
Hours Subtotal		**12**
Elective Courses		
Select 21 hours, 15 of which must be CS:		21
Hours Subtotal		**21**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Counseling Psychology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 45

Code	Title	Hours
CPSY 5553	Theories of Counseling	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5473	Basic Counseling Skills	3
CPSY 5583	Group Process	3
CPSY 5453	Vocational and Career Information	3
CPSY 5523	Assessment in Counseling	3
CPSY 6053	Ethical and Legal Issues in Professional Psychology	3
CPSY 5593	Counseling Practicum	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
EPSY 5463	Psychology of Learning	3
EPSY 5103	Human Development in Psychology	3
FDEP 6133	History and Systems of Psychology	3
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Total Hours		**45**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Counseling: Mental Health Counseling, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis

Total Hours: 66

Code	Title	Hours
Counseling Core		
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills [1]	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling [1]	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		**30**
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
Counseling Practice		
CPSY 5593	Counseling Practicum [2]	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		**9**
Community Counseling Specialization		
CPSY 5483	Mental Health Counseling	3
CPSY 5523	Assessment in Counseling [3]	3
CPSY 5673	Substance Abuse Counseling	3
Electives		
Select 6 credit hours, to be chosen from a list of courses approved by the state board for licensure). [4]		6
Hours Subtotal		**15**
Thesis		
CPSY 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**66**

1 Prerequisite for CPSY 5593.

2 Prerequisite for CPSY 5683/5693.

3 Prerequisite for either REMS 5373 or EPSY 5783.

4 Among the courses listed are CPSY 5323, CPSY 6223, CPSY 5663, CPSY 5173, CPSY 5533, and SPSY 5783.

Non-Thesis

Total Hours: 60

Code	Title	Hours
Counseling Core		
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills [1]	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling [1]	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		**30**
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
Counseling Practice		
CPSY 5593	Counseling Practicum [2]	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		**9**
Community Counseling Specialization		
CPSY 5483	Mental Health Counseling	3
CPSY 5523	Assessment in Counseling [3]	3
CPSY 5673	Substance Abuse Counseling	3
Electives		
Select 6 credit hours, to be chosen from a list of courses approved by the state board for licensure). [4]		6
Hours Subtotal		**15**
Total Hours		**60**

1 Prerequisite for CPSY 5593.

2 Prerequisite for CPSY 5683/5693.

3 Prerequisite for either REMS 5373 or EPSY 5783.

4

Among the courses listed are CPSY 5323, CPSY 6223, CPSY 5663, CPSY 5173, CPSY 5533, and SPSY 5783.

Counseling: Mental Health Counseling Requirements

- Complete a minimum of 60 graduate credit hours of coursework for the Mental Health Counseling Option and the School Counseling Option.
- Nine (9) credit hours may be transferred from other recognized graduate programs. Tulsa students may transfer up to fifteen (15) credit hours from the University of Oklahoma-Tulsa campus.
- The last eight (8) hours must be taken at Oklahoma State University and taken for resident credit.
- As least 24 credit hours must be in 5000 level courses or above. (Students who choose to write a master's thesis for 6 credit hours must take at least 22 credit hours of 5000 level courses.) 4000 level courses taken for graduate credit will not be approved by the Oklahoma licensing board for professional counselors.
- A minimum overall grade point average of 3.00 is required in all academic coursework.
- A grade of B or better must be earned in CPSY 5473, 5553, 5593, and 5683/5693. Students who earn a grade below a B in any of these courses will be required to repeat the course or may be suspended from the program. Students will only be allowed to repeat a course one time to earn a higher grade.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Counseling: School Counseling, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 66

Code	Title	Hours
Counseling Core		
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills [1]	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling [1]	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 5673	Substance Abuse Counseling	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		**30**
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
School Counseling Specialization		
CPSY 5513	Comprehensive School Counseling Programs	3
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5523	Assessment in Counseling	3
Hours Subtotal		**9**
Counseling Practice		
CPSY 5593	Counseling Practicum	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Select six hours of electives.		6
Thesis		
CPSY 5000	Master's Thesis	6
Hours Subtotal		**21**
Total Hours		**66**

1

Prerequisite for CPSY 5593.

Non-Thesis Option

Total Hours: 60

Code	Title	Hours
Counseling Core		
CPSY 5453	Vocational and Career Information	3
CPSY 5473	Basic Counseling Skills [1]	3
CPSY 5493	Professional and Ethical Issues in Counseling	3
CPSY 5503	Multicultural Counseling	3
CPSY 5553	Theories of Counseling [1]	3
CPSY 5563	Conceptualization and Diagnosis in Counseling	3
CPSY 5583	Group Process	3
CPSY 5673	Substance Abuse Counseling	3
CPSY 6553	Advanced Practice in Marital and Family Treatment	3
EPSY 5103	Human Development in Psychology	3
Hours Subtotal		**30**
Research		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
School Counseling Specialization		
CPSY 5513	Comprehensive School Counseling Programs	3
CPSY 5413	Child and Adolescent Counseling	3
CPSY 5523	Assessment in Counseling	3
Select six hours of electives.		6
Hours Subtotal		**15**
Counseling Practice		
CPSY 5593	Counseling Practicum	3
CPSY 5683	Internship In Counseling I	3
CPSY 5693	Internship In Counseling II	3
Hours Subtotal		**9**
Total Hours		**60**

1

Prerequisite for CPSY 5593.

Counseling: School Counseling Requirements

- Complete a minimum of 60 graduate credit hours of coursework for the Mental Health Counseling Option and the School Counseling Option.
- Nine (9) credit hours may be transferred from other recognized graduate programs. Tulsa students may transfer up to fifteen (15) credit hours from the University of Oklahoma-Tulsa campus.
- The last eight (8) hours must be taken at Oklahoma State University and taken for resident credit.
- As least 24 credit hours must be in 5000 level courses or above. (Students who choose to write a master's thesis for 6 credit hours must take at least 22 credit hours of 5000 level courses.) 4000 level courses taken for graduate credit will not be approved by the Oklahoma licensing board for professional counselors.
- A minimum overall grade point average of 3.00 is required in all academic coursework.
- A grade of B or better must be earned in CPSY 5473, 5553, 5593, and 5683/5693. Students who earn a grade below a B in any of these courses will be required to repeat the course or may be suspended

from the program. Students will only be allowed to repeat a course one time to earn a higher grade.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master’s Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Data Science: Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core Courses		
Select 15 hours:		15
IEM 5083	Data Science and Applications	
CS 5433	Big Data Management	
STAT 5543	Applied Regression Analysis	
STAT 5253	Mathematical Statistics I	
or STAT 5123	Probability Theory	
or IEM 5003	Probability and Statistics for Engineers	
Only one of the following:		
IEM 5653	Data Engineering	
MATH 5653	Data Engineering	
STAT 5653	Data Engineering	
Hours Subtotal		**15**
Required Courses		
Select 9 hours from the following:		9
IEM 5683	Advanced Data Analytics in Industrial Engineering	
IEM 5723	Data, Process and Object Modeling	
IEM 5783	Applied Statistical Analysis in R for Engineers	
Hours Subtotal		**9**
Elective Courses		
Select at least 9 hours:		9
IEM 5013	Introduction to Optimization	
IEM 5103	Breakthrough Quality and Reliability	
IEM 5153	Process Design and Integration	
IEM 5703	Discrete System Simulation	
IEM 5673		
CS 5233	Intro to Database Systems	
CS 5413	Data Structures and Algorithm Analysis II	
MATH 5503	Introduction to Optimization	
STAT 5063	Statistical Machine Learning with R	
STAT 5223	Statistical Inference	
or STAT 5263	Mathematical Statistics II	
Hours Subtotal		**9**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Design and Merchandising: Apparel Design and Production, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Research Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Three hours from:		3
DM 5001	Orientation to Graduate Studies in Design and Merchandising	
AND		
DHM 5112	Research Planning and Proposal Writing	
OR		
DM 5093	Proposal Writing	
DM 5013	Research Developments in Design and Merchandising	3
Required Non-Core Courses		
DM 5003	Theoretical Perspectives for Design and Merchandising	3
STAT 5013	Statistics for Experimenters I	3
DM 5000	Master's Thesis	6
Hours Subtotal		**18**
Electives		
Select from any of the following (9 credits of which must be in DM):		12
DM 5113	Theories of Creative Process in Design and Merchandising	
DM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DM 5343	Applied Sensation, Perception and Behavioral Psychology in DM	
DM 5440	Career Internship	
DM 5533	Theory and Design of Functional Apparel	
Hours Subtotal		**12**
Total Hours		**30**

Design Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Three hours from:		3
DM 5001	Orientation to Graduate Studies in Design and Merchandising	
AND		
DHM 5112	Research Planning and Proposal Writing	
OR		
DM 5093	Proposal Writing	
DM 5013	Research Developments in Design and Merchandising	3
Required Non-Core Courses		
DM 5000	Master's Thesis	6
DM 5003	Theoretical Perspectives for Design and Merchandising	3
DM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5233	Design Evaluation	3
Hours Subtotal		**21**
Electives		
Select from any of the following (6 credits of which must be in DM):		9
DM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DM 5343	Applied Sensation, Perception and Behavioral Psychology in DM	
DM 5440	Career Internship	
DM 5533	Theory and Design of Functional Apparel	
STAT 5013	Statistics for Experimenters I	
Hours Subtotal		**9**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Design and Merchandising: Digital Design, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Courses		
DM 5001	Orientation to Graduate Studies in Design and Merchandising	1
DHM 5112 or DM 5093	Proposal Writing	2
DM 5013	Research Developments in Design and Merchandising	3
Hours Subtotal		**6**
Non-Core Requirements		
DM 5003	Theoretical Perspectives for Design and Merchandising	3
DM 5113	Theories of Creative Process in Design and Merchandising	3
REMS 5953	Statistical Methods in Education	3
DM 5073	Virtual and Augmented Reality Applications in Design and Merchandising	3
DM 5173	Advanced Digital Design Communication	3
Select six hours from the following:		6
DM 5000	Master's Thesis	
OR		
DM 5810	Problems in Design and Merchandising	
AND		
DM 5353	Graduate Interior Design Studio	
Hours Subtotal		**21**
Electives		
Select one course (3 hours) from the following:		3
DM 5373	Topics in Building Information Modeling	
REMS 6003	Analyses of Variance	
Other electives to be determined by advisor.		
Hours Subtotal		**3**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Design and Merchandising: Interior Design, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Research Thesis Option

Total Hours: 30

Code	Title	Hours
DHM Core		
DM 5001	Orientation to Graduate Studies in Design and Merchandising	1
DHM 5112 or DM 5093	Proposal Writing	2
DM 5013	Research Developments in Design and Merchandising	3
Hours Subtotal		**6**
Other Requirements (Non-Core)		
DM 5000	Master's Thesis	6
DM 5003	Theoretical Perspectives for Design and Merchandising	3
DM 5113	Theories of Creative Process in Design and Merchandising	3
DM 5343	Applied Sensation, Perception and Behavioral Psychology in DM	3
DM 5353	Graduate Interior Design Studio	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**21**
Electives		
Choose 3 hours from the following:		3
DM 5440	Career Internship	
DM 4373	Advanced Computer-Aided Design for Interior Design	
Or appropriate related course from outside of DM (note: interdisciplinary courses such as gerontology, hospitality, merchandising, etc. are encouraged).		
Hours Subtotal		**3**
Total Hours		**30**

Design Thesis Option

Total Hours: 30

Code	Title	Hours
DHM Core		
DM 5001	Orientation to Graduate Studies in Design and Merchandising	1
DHM 5112 or DM 5093	Proposal Writing	2
DM 5013	Research Developments in Design and Merchandising	3
Hours Subtotal		**6**
Other Requirements (Non-Core)		
DM 5000	Master's Thesis	6
DM 5113	Theories of Creative Process in Design and Merchandising	3
DHM 5233	Design Evaluation	3
DM 5343	Applied Sensation, Perception and Behavioral Psychology in DM	3
DM 5353	Graduate Interior Design Studio	3
Hours Subtotal		**18**
Electives		
Choose 6 hours from the following:		6
DM 4573	Sustainable Design for Apparel and Interiors [1]	
DM 5003	Theoretical Perspectives for Design and Merchandising	
DM 5440	Career Internship	
STAT 5013	Statistics for Experimenters I	
Or appropriate related course from outside of DM (note: interdisciplinary courses such as gerontology, hospitality, merchandising, etc. are encouraged).		
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Design and Merchandising: Merchandising, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
DHM Core		
DM 5001	Orientation to Graduate Studies in Design and Merchandising	1
DHM 5112 or DM 5093	Proposal Writing	2
DM 5013	Research Developments in Design and Merchandising	3
Hours Subtotal		**6**
Other Requirements (Non-Core)		
STAT 5013	Statistics for Experimenters I	3
DM 5003	Theoretical Perspectives for Design and Merchandising	3
DM 5000	Master's Thesis	6
Hours Subtotal		**12**
Electives		
Select 12 hours from the following, 9 of which must be in DM:		12
DM 5113	Theories of Creative Process in Design and Merchandising	
DM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	
DM 5343	Applied Sensation, Perception and Behavioral Psychology in DM	
DM 5440	Career Internship	
DM 5643	Promotional Strategies in Merchandising	
DM 5663	International Merchandising Management	
DM 6403	Merchandising Theory Application and Strategy Implementation	
DM 5643	Promotional Strategies in Merchandising	
Or appropriate related courses outside of DM, such as gerontology, hospitality, business, etc.		
Hours Subtotal		**12**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Design and Merchandising: Retail Merchandising Leadership, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Required Courses		
DM 5013	Research Developments in Design and Merchandising	3
DM 5033	Foundations of Sustainability in Merchandising	3
DM 5113	Theories of Creative Process in Design and Merchandising	3
DM 5240	Master's Creative Component	3
DM 5303	Sociological, Psychological and Economic Aspects of Consumer Behavior	3
DM 5623	Professional Advancement in Merchandising	3
DM 5643	Promotional Strategies in Merchandising	3
DM 5663	International Merchandising Management	3
DM 5673	Financial Merchandising Implications	3
DM 5683	Strategic Planning for the Merchandising Executive	3
DM 6403	Merchandising Theory Application and Strategy Implementation	3
REMS 5953	Statistical Methods in Education	3
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Dietetics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Core Requirements		
STAT 5013	Statistics for Experimenters I	3
or NSCI 5603	Statistical Methods in Dietetics	
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5963	Environmental Scanning and Analysis	3
Hours Subtotal		**9**
Elective Courses		
Select 23 hours from the following:		23
NSCI 5013	Financial Management and Cost Controls in Dietetics	
NSCI 5033	Macronutrients in Human Nutrition	
NSCI 5043	Micronutrients in Human Nutrition	
NSCI 5053	Functional Foods for Chronic Disease Prevention	
NSCI 5103	Grant Writing for the Professional	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5203	Nutrition in Wellness	
NSCI 5213	Entrepreneurship in Food Service and Dietetics	
NSCI 5223	Advanced Nutrition Across the Life Span	
NSCI 5240	Contemporary Issues in Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5323	Physical Health, Nutrition, Wellness and Active Aging	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5373	Childhood Nutrition	
NSCI 5443	Precision Nutrition	
NSCI 5543	Obesity Prevention Across the Lifespan	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5683	Fundamentals of Leadership in Dietetics	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5753	Health Care Administration	
NSCI 5843	Non-thesis Graduate Capstone	
NSCI 5913	Nutritional Epidemiology	
NSCI 6033	Functional Foods and Phytochemicals	
NSCI 6223	Nutrition in Immunology	
NSCI 6243	Nutrition and Cancer	
NSCI 6643	Clinical Aspects of Nutrition Support	
Hours Subtotal		**23**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Economics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Degree Core		
Required Courses		
ECON 5033	Macroeconomic Analysis	3
ECON 5213	Introduction to Econometrics	3
ECON 6013	Microeconomic Theory I	3
ECON 6213	Econometrics I	3
ECON 6323	Mathematical Economics I	3
Hours Subtotal		**15**
Electives		
Select 15 hours		15
Suggested Electives:		
AGEC 5053	Environmental Economics and Resource Development	
AGEC 5113	Applications of Mathematical Programming	
AGEC 5503	Economics of Natural and Environmental Resource Policy	
AGEC 5723	Plan & Pol Devlpmnt	
ECON 5733	Energy Economics: Traditional and Renewable Energy Markets	
ECON 6033	Macroeconomic Theory I	
STAT 5023	Statistics for Experimenters II	
STAT 5053	Time Series Analysis	
Hours Subtotal		**15**
Other Requirements		
ECON 5003	Research Report	3
Hours Subtotal		**3**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership Studies: Higher Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36
(Degree program is online only)

Code	Title	Hours
Required Core		
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	3
HESA 5653	Research to Practice in Higher Education and Student Affairs	3
HESA 5720	HESA Creative Component	3
HESA 5813	Leadership and Development of Higher Education Organizations	3
HESA 5973	Foundations of Higher Education	3
HESA 6233	Critical Issues in Higher Education and Student Affairs	3
Hours Subtotal		**18**
Guided Electives [1]		
Select 18 hours from the following:		18
HESA 5213	Student Development Theory	
HESA 5223	Career Development for College Students	
HESA 5320	Seminar in Student Development	
HESA 5333	Introduction to Hidden Student Populations	
HESA 5340	Hidden Student Populations	
HESA 6583	The Impact of College on Students and Society	
HESA 6683	The U.S. Two-Year/Community College	
HESA 6710	Special Problems in Higher Education and Student Affairs	
HESA 6733	Planning and Educational Change	
Hours Subtotal		**18**
Total Hours		**36**

1

And other courses approved by graduate advisory committee.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership Studies: School Administration, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
Hours Subtotal		**6**
Emphasis Core		
EDLE 5253	The Principalship	3
EDLE 5323	School Finance	3
EDLE 5473	Supervision of Instruction	3
EDLE 5723	Education Law	3
EDLE 5800	Embedded Field Studies Internship	3
EDLE 5893	Field Studies Intern II	3
Hours Subtotal		**18**
Research and Inquiry		
Select 6 hours from the following:		6
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		**6**
Option Electives		
Select 6 hours from the following:		6
(Alternate courses may be approved by the student's advisor)		
CIED 5053	Curriculum Issues	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
SCFD 5883	Educational Sociology	
SCFD 5873	Culture, Society and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SPED 5633	Behavior Characteristics of Exceptional Individuals	
SPED 5993	Culturally Responsive Teaching in Special Education	
REMS 5373	Educational Measurements	
EDTC 5103	Advanced Computing Applications in Education	
EDTC 5720	Educ Workshop	
WAED 5013	Foundations and Characteristics of Adult Learning	
WAED 5313	Overview of Workforce and Adult Education	
WAED 5353	Instructional Strategies for Adults	
WAED 5123	Administration & Evaluation of Workforce and Adult Education	
Hours Subtotal		**6**
Required Creative Component: Portfolio		
The Portfolio, designed and completed by Candidates to exhibit competency in the ELCC Standards, serves as the required Creative Component for the MS degree in School Administration; satisfactory completion of the Portfolio is required for degree completion and recommendation for certification.		
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership Studies: Student Affairs, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Degree Core		
HESA 5813	Leadership and Development of Higher Education Organizations	3
HESA 5320	Seminar in Student Development	3
Hours Subtotal		**6**
Required Option Core		
HESA 5173	Introduction to Student Affairs	3
HESA 5213	Student Development Theory	3
HESA 6243	Internship in Higher Education and Student Affairs I	3
HESA 5343	Assessment Techniques for Higher Education and Student Affairs Professionals	3
Hours Subtotal		**12**
Capstone		
HESA 5903	Capstone in Higher Education and Student Affairs	3
Hours Subtotal		**3**
Electives [1]		
Select 9 hours from the following:		9
HESA 5113	Civic Leadership and Community Engagement	
HESA 5223	Career Development for College Students	
HESA 5463	Legal Issues in Student Affairs	
HESA 5653	Research to Practice in Higher Education and Student Affairs	
HESA 5953	Organizational Development for Higher Education	
HESA 5973	Foundations of Higher Education	
HESA 5983	Administrative Issues in Higher Education	
HESA 6163	International Issues in Higher Education	
HESA 6233	Critical Issues in Higher Education and Student Affairs	
HESA 6253	Internship in Higher Education and Student Affairs II	
HESA 6703	Finance in Higher Education	
EPSY 5103	Human Development in Psychology	
EPSY 6533	Human Motivation	
SCFD 6983	Diversity and Equity Issues in Education	
Hours Subtotal		**9**
Total Hours		**30**

1

And other courses approved by graduate advisory committee.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Leadership Studies: Workforce and Adult Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
EDLE 5813	Leadership Theory and Ethical Decision Making	3
EDLE 5953	Developing Educational Organizations	3
EDLE 5323	School Finance	3
EDLE 5723	Education Law	3
Hours Subtotal		**12**
Emphasis Core		
WAED 5013	Foundations and Characteristics of Adult Learning	3
WAED 5123	Administration & Evaluation of Workforce and Adult Education	3
WAED 5313	Overview of Workforce and Adult Education	3
WAED 5353	Instructional Strategies for Adults	3
EDLE 5800	Embedded Field Studies Internship	3
EDLE 5893	Field Studies Intern II	3
Hours Subtotal		**18**
Research and Inquiry		
Select 6 hours from the following:		6
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Psychology: Educational Psychology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Degree Core		
Select 6 hours from the following:		6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		**6**
Research and Measurement		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
Program Core		
Select 3 hours from EPSY 5103, EPSY 5463, EPSY 5553, whichever was not used as part of Degree Core:		3
Select 15 hours from the following:		15
FDEP 5183	Theories of Social Psychology	
EPSY 5320	Seminar in Educational Psychology	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		**18**
Thesis		
EPSY 5000	Master's Thesis (6 hours, required)	6
Hours Subtotal		**6**
Total Hours		**36**

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Degree Core		
Select 6 hours from the following:		6
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5553	Motivation in Educational Contexts	
Hours Subtotal		**6**
Research and Measurement		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
Hours Subtotal		**6**
Program Core		
Select 3 hours from EPSY 5103, EPSY 5463, EPSY 5553, whichever was not used as part of Degree Core:		3
Select 15 hours from the following:		15
FDEP 5183	Theories of Social Psychology	
EPSY 5320	Seminar in Educational Psychology	
EPSY 5403	Issues in Adolescent Development	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5663	Creativity for Teachers	
EPSY 5963	Developing Resources to Support Educational Programs	
EPSY 5983	Instructional Effectiveness in Higher Education	
Hours Subtotal		**18**
Creative Component		
Select 6 hours of electives from the emphasis area with the development of a Creative Component. Related elective coursework is determined by the student with committee members.		6
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Psychology: Research, Evaluation, Measurement and Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Inquiry Core		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
REMS 5373	Educational Measurements	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
SCFD 5913	Introduction to Qualitative Inquiry	3
Hours Subtotal		**21**
Educational Psychology Degree Core		
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
Hours Subtotal		**6**
Inquiry Elective		
Select 3 hours from the following:		3
REMS 5373	Educational Measurements	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 6673	Item Response Theory	
REMS 6683	Multilevel Modeling Methods in Education	
REMS 6693	Structural Equation Modeling for Behavioral and Educational Research	
Hours Subtotal		**3**
Comprehensive Exams		
Upon completion of coursework and having an approved dissertation proposal, students must pass a qualifying examination.		
Thesis		
REMS 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**36**

Report Option

Total Hours: 36

Code	Title	Hours
Inquiry Core		
REMS 5013	Research Design and Methodology	3
REMS 5953	Statistical Methods in Education	3
REMS 5373	Educational Measurements	3
REMS 6003	Analyses of Variance	3
REMS 6013	Multiple Regression Analysis in Behavioral Studies	3
REMS 6373	Program Evaluation	3
SCFD 5913	Introduction to Qualitative Inquiry	3
Hours Subtotal		**21**
Educational Psychology Degree Core		
EPSY 5103	Human Development in Psychology	3
EPSY 5463	Psychology of Learning	3
Hours Subtotal		**6**
Inquiry Elective		
Select 3 hours from the following:		3
REMS 5373	Educational Measurements	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 6673	Item Response Theory	
REMS 6683	Multilevel Modeling Methods in Education	
REMS 6693	Structural Equation Modeling for Behavioral and Educational Research	
Hours Subtotal		**3**
Comprehensive Exams		
Upon completion of coursework and having an approved dissertation proposal, students must pass a qualifying examination.		
Report with Electives		
Select one of the following options:		6
Option 1 - 2 hours of thesis plus 4 hours or related electives		
Option 2 - Development of a Creative Component with Related Elective coursework (elective options are specified within the curriculum requirements for each program).		
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Psychology: School Psychometrics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 37

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 5953	Statistical Methods in Education	3
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 6333	Instructional Assessment and Consultation	3
EPSY 5000	Master's Thesis	6
or other courses as approved by the committee		
Total Hours		**37**

Formal Report Option

Total Hours: 37

Code	Title	Hours
Required Courses		
SPSY 5023	Introduction to School Psychology	3
SPSY 5113	Developmental Psychopathology	3
EPSY 5103	Human Development in Psychology	3
REMS 5013	Research Design and Methodology	3
EDHS 5910	Educational and Human Sciences Field Experiences	2
SPSY 5793	Individual Intellectual Assessment of Children and Youth	3
REMS 5953	Statistical Methods in Education	3
SPSY 6313	Advanced Interventions for Increased Academic Achievement	3
SPSY 5803	Advanced Cognitive Assessment and Theory	3
SPSY 5210	Introductory Practicum in School Psychology	2
SPSY 6333	Instructional Assessment and Consultation	3
EPSY 5000	Master's Thesis	2
or other courses as approved by the committee		
Select 4 hours of electives		4
Formal Report also required		
Total Hours		**37**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Technology: Educational Technology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
EDTC 5103	Advanced Computing Applications in Education [1]	3
EDTC 5203	Foundations of Educational Technologies	3
EDTC 5753	Introduction to Instructional Design	3
Hours Subtotal		**9**
Research and Inquiry		
REMS 5013	Research Design and Methodology	3
Hours Subtotal		**3**
Option - Educational Technology		
EDTC 5153	Computer-Based Instruction Development [1]	3
EDTC 5403	Creativity and Innovation in Educational Technology	3
EDTC 5503	Facilitating Online Learning [1]	3
EDTC 5053	Learning in a Digital Age [1]	3
EDTC 5113	Digital Media Production for Instruction	3
Hours Subtotal		**15**
Electives or Thesis		
Select 9 hours		9
Suggested Courses		
EDTC 5303	Digital Games and Simulations in the Classroom	
EDTC 5783	Learning and Teaching with Mobile Devices	
EDTC 5793	Design-Based Research	
LBSC 5613	Library Networks and Databases	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
REMS 5953	Statistical Methods in Education (OR)	
EDTC 5000	Master's Report or Thesis	
Hours Subtotal		**9**
Total Hours		**36**

1

These four courses count toward the Graduate Certificate in Online Teaching. It is necessary to apply separately for the certificate in addition to the M.S. in Ed Tech. See edtech.okstate.edu/gradcert.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Educational Technology: School Library Media, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
EDTC 5203	Foundations of Educational Technologies	3
EDTC 5103	Advanced Computing Applications in Education	3
EDTC 5753	Introduction to Instructional Design	3
Hours Subtotal		**9**
Research and Inquiry Requirement		
REMS 5013	Research Design and Methodology	3
(If a substitution is approved for this course, you must complete RCR modules and send printed certificate to the COE Graduate Studies office.)		
Hours Subtotal		**3**
Option Area - School Library Media		
LBSC 5113	Selection and Organization of Informational and Educational Resources	3
LBSC 5613	Library Networks and Databases	3
LBSC 5823	Administration of School Library Media and Technology Programs	3
CIED 5353	Literature for Children, Adolescents and Adults	3
CIED 5443	Teaching Reading with Literature	3
Hours Subtotal		**15**
Electives		
EDTC 5113	Digital Media Production for Instruction	3
EDTC 5303	Digital Games and Simulations in the Classroom	3
EDTC 5403	Creativity and Innovation in Educational Technology	3
Other (consult your advisor for permission to substitute classes)		
Hours Subtotal		**9**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Electrical Engineering, MEN

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
ECEN Graduate Level Courses		
Select 24 hours of 5000-level or higher courses.		24
May include up to 9 hours of ECEN 5080 with approval of the student's graduate advisory committee. [1]		
A maximum of three credit hours of ECEN 5070 may be included on a Plan of Study with approval of the advisory committee.		
ECEN 5000, ECEN 5030, ECEN 6050, and ENGL 4893 may not be applied to the MEngEE Plan of Study.		
Additional Courses		
May include non-ECEN, math, science, or engineering graduate-level courses with approval of the student's graduate advisory committee.		9
Total Hours		**33**

1

ECEN 4xxx courses approved for graduate credit completed in the Spring 2020 semester or earlier are equivalent to ECEN 5080 in the Plan of Study.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Electrical Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30[1]

Code	Title	Hours
ECEN Graduate Level Courses		
Students in the MSEE degree program are required to take courses in at least two areas of ECEN at the 5000-level or above.		21
Up to three credit hours of ECEN 5070 and six credit hours of ECEN 5080 may be included on the MSEE Plan of Study with approval of the advisory committee. [1]		
ECEN 5000	Thesis	6
ECEN 5030, ECEN 6050, and ENGL 4893 may not be applied to the MS Plan of Study.		
Additional Courses		
May include non-ECEN, math, science, or engineering graduate-level courses with approval of the student's graduate advisory committee.		3
Total Hours		**30**

1

ECEN 4xxx courses approved for graduate credit completed in the Spring 2020 semester or earlier are equivalent to ECEN 5070 in the Plan of Study.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Engineering and Technology Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Degree Core		
ETM 5111	Introduction to Strategy, Technology and Integration	1
ETM 5511	Capstone Preparation	1
ETM 5133	Capstone to Strategy, Technology and Integration	3
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	3
Hours Subtotal		**8**
Electives		
Select 24 hours from the following:		24
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5341	Leadership Strategies for Technical Professionals	
ETM 5351	Planning Technical Projects	
ETM 5371	Ethics for Practicing Engineers	
ETM 5391	New Product Introduction and Commercialization	
ETM 5411	Engineering Economic Analysis	
ETM 5461	Intellectual Property Management	
ETM 5481	Sustainable Enterprise Strategies	
ETM 5531	Contract Law in Engineering and Technology	
ETM 5153	Foundations of Engineering Management	
ETM 5163	Business Innovation and Technology	
ETM 5253	Engineering Problem Solving and Decision-Making	
ETM 5283	Strategic Planning	
ETM 5943	Lean Sigma Implementation	
IEM 5003	Probability and Statistics for Engineers	
IEM 5413	Engineering Entrepreneurship	
IEM 5603	Project Management	
IEM 5743	Information Systems and Technology	
IEM 5763	Supply Chain Strategy	
IEM 5813	Performance Measurement Systems	
MGMT 5113	Individual and Organizational Behavior	
MGMT 5533	Leadership Challenges	
MKTG 5133	Marketing Management	
SOC 5813	Myths and Realities of Organizational Change	
Hours Subtotal		**24**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Engineering Technology: Fire Safety and Explosion Protection, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Engineering Technology Core Courses		
FEMP 5013	Research Design & Methodology	3
or FSEP 5013	Research Design & Methodology	
IEM 5603	Project Management	3
or FSEP 5023	Project Management	
FSEP 5133	Principles of Industrial and Process Safety	3
Fire Safety and Explosion Protection Core Courses		
Select 9 hours from FSEP core courses.		9
Hours Subtotal		**18**
Electives		
Select 3 hours of graduate courses approved by the advisory committee.		3
Select 3 hours from FSEP courses.		3
Hours Subtotal		**6**
Master's Thesis		
FSEP 5000	Master's Thesis	6
Each M.S. candidate must prepare a written thesis and defend it before a thesis committee of at least three faculty members (minimum two from the FPST program). The written document must satisfy the requirements of the Graduate College for format and structure. The thesis defense consists of a twenty-minute oral presentation, followed by questions from the committee.		
Hours Subtotal		**6**
Total Hours		**30**

Code	Title	Hours
FSEP Core Courses		
FSEP 5033	Risk Analysis	3
FSEP 5113	Introduction to Fire Dynamics	3
FSEP 5143	Performance Based Design for Life Safety in Fire and Other Hazards	3
FSEP 5043	Principles and Impacts of Explosions	3
FSEP Electives		
FSEP 5060	Emerging Topics in Engineering Technology	3
FSEP 5123	Advanced Special Hazard Suppression and Detection	3
FSEP 5153	Advanced Exposure Assessment	3
FSEP 5163	Building Electrical Systems	3
FSEP 5213	Advanced Building Design and Analysis	3
FSEP 5383	Fire and Evacuation Modeling	3

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Engineering Technology Core Courses		
FEMP 5013	Research Design & Methodology	3
or FSEP 5013	Research Design & Methodology	
IEM 5603	Project Management	3
or FSEP 5023	Project Management	
FSEP 5133	Principles of Industrial and Process Safety	3
Fire Safety and Explosion Protection Core Courses		
Select 9 hours from FSEP core courses.		9
Hours Subtotal		**18**
Electives		
Select one of the two options:		15
Coursework only option		
Select 6 hours of graduate courses approved by the advisory committee.		
Select 9 hours from FSEP courses.		
Creative component option		
Select 6 hours of graduate courses approved by the advisory committee.		
Select 6 hours from FSEP courses		
FSEP 5990	Directed Studies (3 hours)	
The FSEP 5990 course is used for a creative component. A report (a "mini-thesis") must be submitted, prepared in the style of an MS thesis, but not submitted for Graduate College approval.		
Hours Subtotal		**15**
Total Hours		**33**

Code	Title	Hours
FSEP Core Courses		
FSEP 5033	Risk Analysis	3
FSEP 5113	Introduction to Fire Dynamics	3
FSEP 5143	Performance Based Design for Life Safety in Fire and Other Hazards	3
FSEP 5043	Principles and Impacts of Explosions	3
FSEP Electives		
FSEP 5060	Emerging Topics in Engineering Technology	3
FSEP 5123	Advanced Special Hazard Suppression and Detection	3
FSEP 5153	Advanced Exposure Assessment	3
FSEP 5163	Building Electrical Systems	3
FSEP 5213	Advanced Building Design and Analysis	3
FSEP 5383	Fire and Evacuation Modeling	3

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Engineering Technology: Mechatronics & Robotics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses (9 hours)		
MERO 5333	Learning-Based Control for Mechatronics and Robotics	3
FSEP 5013	Research Design & Methodology	3
FSEP 5023	Project Management	3
Hours Subtotal		**9**
Required Courses (9 hours)		
MERO 5113	Mechatronic Systems I	3
MERO 5213	Introduction to Robot Dynamics and Kinematics	3
MERO 5313	Linear Control Systems for Mechatronics	3
Hours Subtotal		**9**
Electives (6 hours)		
Select 6 hours:		6
MERO 5060	Emerging Topics in Mechatronics and Robotics	
MERO 5070	Directed Studies	
MERO 5133	Mechatronic System Hardware and Software Integration	
MERO 5323	Intelligent Control of Mechatronic Systems	
MERO 5413	Robotic Underwater Vehicles	
MERO 5423	Engineering Acoustics	
MERO 5433	Industrial Noise Control	
MERO 5513	Electrohydraulics	
MERO 5523	Electropneumatics	
MERO 5613	Smart Manufacturing for Mechatronics	
MERO 5633	Multiphysics Computational Modeling and Simulation	
MERO 5713	Advanced CAD for Electro-Mechanical Systems	
MERO 5723	Mechanism Design with CAD	
MERO 5733	Advanced Vibration for Electro-Mechanical Systems	
MAE 5433	Robotics, Kinematics, Dynamics and Control	
or ECEN 5433	Robotics Kinematics, Dynamics and Control	
MAE 5483	Advanced Mechatronics Design	
or ECEN 5483	Advanced Mechatronics Design	
ECEN 5233	Embedded Sensor Networks	
ECEN 5283	Computer Vision	
ECEN 5533	Modern Communication Theory	
ECEN 5553	Telecommunications Systems	
ETM 5111	Introduction to Strategy, Technology and Integration	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5153	Foundations of Engineering Management	
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5371	Ethics for Practicing Engineers	
ETM 5411	Engineering Economic Analysis	
IEM 5143	Reliability and Maintainability	
ETM 5461	Intellectual Property Management	
Hours Subtotal		**6**
Thesis		
MERO 5000	Thesis Research	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
MERO 5333	Learning-Based Control for Mechatronics and Robotics	3
FSEP 5013	Research Design & Methodology	3
FSEP 5023	Project Management	3
Hours Subtotal		**9**
Required Courses		
MERO 5113	Mechatronic Systems I	3
MERO 5213	Introduction to Robot Dynamics and Kinematics	3
MERO 5313	Linear Control Systems for Mechatronics	3
Hours Subtotal		**9**
Electives		
Select 12 hours (minimum 6 hours of MERO courses and 3 hours from ETM/IEM courses): [1]		12
MERO 5060	Emerging Topics in Mechatronics and Robotics	
MERO 5133	Mechatronic System Hardware and Software Integration	
MERO 5323	Intelligent Control of Mechatronic Systems	
MERO 5413	Robotic Underwater Vehicles	
MERO 5423	Engineering Acoustics	
MERO 5433	Industrial Noise Control	
MERO 5513	Electrohydraulics	
MERO 5523	Electropneumatics	
MERO 5613	Smart Manufacturing for Mechatronics	
MERO 5633	Multiphysics Computational Modeling and Simulation	
MERO 5713	Advanced CAD for Electro-Mechanical Systems	
MERO 5723	Mechanism Design with CAD	

MERO 5733	Advanced Vibration for Electro-Mechanical Systems	
MAE 5433	Robotics, Kinematics, Dynamics and Control	
or ECEN 5433	Robotics Kinematics, Dynamics and Control	
MAE 5483	Advanced Mechatronics Design	
or ECEN 5483	Advanced Mechatronics Design	
ECEN 5233	Embedded Sensor Networks	
ECEN 5283	Computer Vision	
ECEN 5533	Modern Communication Theory	
ECEN 5553	Telecommunications Systems	
ETM 5111	Introduction to Strategy, Technology and Integration	
ETM 5143	Strategic Decision Analysis for Engineering and Technology Managers	
ETM 5153	Foundations of Engineering Management	
ETM 5221	Engineering Teaming	
ETM 5241	Strategic Project Management	
ETM 5291	Failure Mode and Effects Analysis in Design	
ETM 5371	Ethics for Practicing Engineers	
ETM 5411	Engineering Economic Analysis	
IEM 5143	Reliability and Maintainability	
ETM 5461	Intellectual Property Management	
MERO 5070	Directed Studies [1]	
Hours Subtotal		**12**
Total Hours		**30**

1

The MERO 5070 course is used for a creative component. A report (a "mini-thesis") must be submitted, prepared in the style of an M.S. thesis, but not submitted for Graduate College approval.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

English, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Required Courses		
ENGL 5013	Introduction to Graduate Studies	3
ENGL 5363	Critical Approaches to Screen Studies: Theory and History	3
Select 18 additional hours of ENGL courses		18
Hours Subtotal		**24**
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

English: Creative Writing, MFA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 42

Code	Title	Hours
Required Courses		
Craft and Forms		
Select 3 hours from the following:		3
ENGL 5760	Craft and Forms of Prose	
ENGL 5780	Craft and Forms of Poetry	
ENGL 5720	Seminar in Creative Nonfiction	
Graduate-Level Workshops		
Select 12 hours from the following courses:		12
ENGL 5730	Seminar in Fiction Writing	
ENGL 5740	Seminar in Poetry Writing	
ENGL 6130	Studies in Fiction Writing	
ENGL 6140	Studies in Poetry Writing	
ENGL 6160	Studies in Creative Nonfiction	
Graduate-Level Literature		
Select six hours		6
Hours Subtotal		**21**
Electives		
Select nine hours from creative writing, literature, methods course for teaching assistants, or other areas of language and culture		9
Hours Subtotal		**9**
Thesis		
Twelve hours from:		12
ENGL 5000	Master's Thesis [12 hours limited to MFA]	
Hours Subtotal		**12**
Total Hours		**42**

Other Degree Requirements

- **Creative Writing Requirements**: As the defining focus of work toward the MFA degree, creative writing coursework makes up the majority of credit hours, in a combination of ENGL 5730: Seminar in Fiction Writing, ENGL 5740: Seminar in Poetry Writing, ENGL 6130: Studies in Fiction Writing, ENGL 6140: Studies in Poetry Writing, ENGL 6160: Studies in Creative Nonfiction, ENGL 5723: Craft and Forms of Poetry Writing or ENGL 5763: Craft and Forms of Fiction Writing, as well as thesis hours.
- **Literature Coursework Requirement**: MFA students are required to take six hours of literature course work at the 5000- or 6000-level.
- **Electives**: Students choose the remaining hours of coursework in consultation with their advisory committees. Course selection should take into account the student's thesis genre, artistic interests, and academic and professional goals. For instance, students interested in going on to PhD work at Oklahoma State University upon completion of the MFA would normally include courses to assist in preparing them for the first-year exam for PhD students.
- **Required Hours at 5000/6000 Level**: All MFA students must complete their coursework at the 5000/6000 level.
- **Thesis Hours**: Only MFA students may use up to 12 hours of ENGL 5000 on their Plan of Study.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

English: Professional Writing, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
Professional Writing Core Courses		
ENGL 5593	Seminar in Style and Editing	3
ENGL 5553	Studies in Visual Rhetoric and Design	3
ENGL 5523	Genres in Professional Writing	3
ENGL 5340	Studies in Discourse Analysis	3
Select 6 hours from the following:		6
ENGL 5353	Studies in the History of Rhetoric	
ENGL 5560	Seminar in Professional Writing	
ENGL 6350	Topics in Rhetorical Theory	
ENGL 6500	Topics in Professional Writing	
Hours Subtotal		**18**
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		**6**
Sample Electives [1]		
Select 6 hours from the following:		6
Professional Writing		
ENGL 5013	Introduction to Graduate Studies	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 5560	Seminar in Professional Writing	
ENGL 6500	Topics in Professional Writing	
Composition		
ENGL 5213	Composition Theory and Pedagogy	
Linguistics		
ENGL 5143	Descriptive Linguistics	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5130	Studies in English Grammar	
ENGL 5140	Seminar in Linguistics	
ENGL 6410	Topics in Linguistics	
TESL		
ENGL 5243	Teaching English as a Second Language	
ENGL 5333	Second Language Assessment	
ENGL 5313	Internship, Teaching English as a Second Language	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 6420	Topics in Second Language Acquisition	
Hours Subtotal		**6**
Total Hours		**30**

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

Non-Thesis Option

Total Hours: 34

Code	Title	Hours
Required Courses		
Professional Writing Core Courses		
ENGL 5593	Seminar in Style and Editing	3
ENGL 5553	Studies in Visual Rhetoric and Design	3
ENGL 5523	Genres in Professional Writing	3
ENGL 5340	Studies in Discourse Analysis	3
Select 6 hours from the following:		6
ENGL 5353	Studies in the History of Rhetoric	
ENGL 5560	Seminar in Professional Writing	
ENGL 6350	Topics in Rhetorical Theory	
ENGL 6500	Topics in Professional Writing	
Hours Subtotal		**18**
Creative Component		
ENGL 5210	Sem or Directed Study	1
ENGL 5520	Internship in Professional Writing	3
Hours Subtotal		**4**
Sample Electives [1]		
Select 12 hours from the following:		12
Professional Writing		
ENGL 5013	Introduction to Graduate Studies	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 5560	Seminar in Professional Writing	
ENGL 6500	Topics in Professional Writing	
Composition		
ENGL 5213	Composition Theory and Pedagogy	
Linguistics		
ENGL 5143	Descriptive Linguistics	
ENGL 5123	Approaches to Language Acquisition	
ENGL 5130	Studies in English Grammar	
ENGL 5140	Seminar in Linguistics	
ENGL 6410	Topics in Linguistics	
TESL		
ENGL 5243	Teaching English as a Second Language	
ENGL 5333	Second Language Assessment	
ENGL 5313	Internship, Teaching English as a Second Language	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 6420	Topics in Second Language Acquisition	
Hours Subtotal		**12**
Total Hours		**34**

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

English: Teaching English to Speakers of Other Languages, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
TESL Core Courses		
ENGL 5243	Teaching English as a Second Language	3
ENGL 5313	Internship, Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Linguistics Core Courses		
ENGL 5123	Approaches to Language Acquisition	3
ENGL 5130	Studies in English Grammar	3
ENGL 5143	Descriptive Linguistics	3
Hours Subtotal		**18**
Thesis		
ENGL 5000	Master's Thesis	6
Hours Subtotal		**6**
Sample Electives [1]		
Select 6 hours from the following:		6
Language and Linguistics		
ENGL 4003	History of the English Language	
ENGL 4093	Language in America (DS)	
ENGL 5133	Phonetics and Phonology	
ENGL 5140	Seminar in Linguistics	
ENGL 5153	Syntax	
ENGL 5173	Sociolinguistics	
ENGL 5410	Seminar in British Literature of the 16th Century	
PSYC 6393	Language Development	
Teaching Methodology		
ENGL 5013	Introduction to Graduate Studies	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5213	Composition Theory and Pedagogy	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 6420	Topics in Second Language Acquisition	
EDTC 5103	Advanced Computing Applications in Education	
CIED 5143	Language Arts in the Curriculum	
Cultural Studies		
Hours Subtotal		**6**
Total Hours		**30**

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

Non-Thesis Option

Total Hours: 34

Code	Title	Hours
Required Courses		
TESL Core Courses		
ENGL 5243	Teaching English as a Second Language	3
ENGL 5313	Internship, Teaching English as a Second Language	3
ENGL 5333	Second Language Assessment	3
Linguistics Core Courses		
ENGL 5123	Approaches to Language Acquisition	3
ENGL 5130	Studies in English Grammar	3
ENGL 5143	Descriptive Linguistics	3
Hours Subtotal		**18**
Creative Component		
ENGL 5210	Sem or Directed Study	1
Hours Subtotal		**1**
Sample Electives [1]		
Select 15 hours of the following:		15
Language and Linguistics		
ENGL 4003	History of the English Language	
ENGL 4093	Language in America (DS)	
ENGL 5133	Phonetics and Phonology	
ENGL 5140	Seminar in Linguistics	
ENGL 5153	Syntax	
ENGL 5173	Sociolinguistics	
ENGL 5410	Seminar in British Literature of the 16th Century	
PSYC 6393	Language Development	
Teaching Methodology		
ENGL 5013	Introduction to Graduate Studies	
ENGL 5120	Studies in Teaching English as a Second Language	
ENGL 5213	Composition Theory and Pedagogy	
ENGL 5223	Professional Writing Theory and Pedagogy	
ENGL 6420	Topics in Second Language Acquisition	
EDTC 5103	Advanced Computing Applications in Education	
CIED 5143	Language Arts in the Curriculum	
Cultural Studies		
Hours Subtotal		**15**
Total Hours		**34**

1

Courses other than those listed may be taken as electives if approved by the advisory committee.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Entomology and Plant Pathology: Entomology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Requirements		
ENPP 5870	Scientific Presentations (1 credit hour)	1
ENPP 5523	Integrated Management of Insect Pests and Pathogens	3
ENPP 5000	Master's Research and Thesis	6
Exactly 6 graduate credit hours total must be listed on the Plan of Study (more than 6 credit hours completed will appear on final transcripts, not on the Plan of Study).		
Hours Subtotal		**10**
Discipline Requirements		
Entomology		
Core - select at least two courses from the following:		7
ENPP 5464	Insect Biology and Classification	
ENTO 5003	Insect Biochemistry	
ENPP 5044	Insect Morphology and Physiology	
Additional courses to complete the graduate program and Plan of Study (8 credit hours)		8
Hours Subtotal		**15**
Graduate level courses in consultation with graduate committee on plan of study (5 credit hours)		5
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Entomology and Plant Pathology: Plant Pathology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Requirements		
ENPP 5870	Scientific Presentations (1 credit hour)	1
ENPP 5523	Integrated Management of Insect Pests and Pathogens	3
ENPP 5000	Master's Research and Thesis	6
Exactly 6 graduate credit hours total must be listed on the Plan of Study (more than 6 credit hours completed will appear on final transcripts, not on the Plan of Study).		
Hours Subtotal		**10**
Discipline Requirements		
Plant Pathology		
ENPP 5343	Principles of Plant Pathology (Required if student has NOT completed an Introductory PLP course.)	
Core - select at least 2 courses from the following:		7
PLP 5003	Plant Nematology	
ENPP 5014	Plant Virology	
ENPP 5104	Mycology	
ENPP 5304	Phytobacteriology	
Additional courses to complete the graduate program Plan of Study (8 hours)		8
Hours Subtotal		**15**
Graduate level course deemed necessary by the graduate committee. (5 credit hours)		5
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Entrepreneurship, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Degree Core		
Required Courses		
ACCT 5183	MBA Financial Reporting	3
ACCT 5283	MBA Managerial Accounting	3
EEE 5113	Entrepreneurship and Venture Management	3
EEE 5223	Entrepreneurial Marketing	3
EEE 5233	Ideation, Creativity & Innovation	3
EEE 5333	Launching a Business: The First 100 Days	3
EEE 5993	Preparing Effective Business Plans	3
FIN 5013	Business Finance	3
MGMT 5113	Individual and Organizational Behavior	3
Hours Subtotal		**27**
Electives		
Select six hours from the following: [1, 2]		6
EEE 5133	Dilemmas and Debates in Entrepreneurship	
EEE 5200	Special Topics in Entrepreneurship	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
EEE 5403	Social Entrepreneurship	
EEE 5513	Growing Small and Family Ventures	
EEE 5610	Advanced Entrepreneurship Practicum	
EEE 5653	Venture Capital	
Hours Subtotal		**6**
Total Hours		**33**

1

Appropriate substitutes, such as other upper-division Spears School of Business courses or upper-division courses from other colleges, can be made on a case-by-case basis.

2

Involvement in an eligible study abroad program or the Riata Internship may fulfill a portion of the elective requirements.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Environmental Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Coursework		
Twenty-four hours of approved graduate-level coursework		24
CIVE 5000	Master's Thesis (As approved by the student's graduate committee)	6
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Coursework		
Thirty hours of approved graduate-level coursework		30
CIVE 5080	Engineering Problems (As approved by the student's graduate committee)	2
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Environmental Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Requirements		
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5123	Environmental Problem Analysis	3
Select an approved 3-hour Natural or Physical Science course.		3
Select an approved 3-hour skills course.		3
Select 12 approved hours to complete degree requirements.		12
Hours Subtotal		**24**
Research Requirement		
Select 6 hours of Thesis		6
Hours Subtotal		
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Requirements		
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5123	Environmental Problem Analysis	3
Select an approved 3-hour Natural or Physical Science course.		3
Select an approved 3-hour skills course.		3
Select 18 approved hours to complete degree requirements.		18
Hours Subtotal		**30**
Research Requirement		
Select 2 credit hours of Thesis		2
Hours Subtotal		
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Environmental Science: Environmental Management Professional Science Masters, PSM

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Required Core Curriculum		
ENVR 5123	Environmental Problem Analysis	3
ENVR 5533	Genres of Environmental Writing	3
ENVR 5303	Issues in Environmental Sustainability	3
ENVR 5503	Environmental Management Practicum	3
ENVR 5510	Environmental Management Internship	3
Hours Subtotal		**15**
Electives		
Select 18 hours of natural or physical science.		18
Examples of Elective Courses:		
ENVR 5313	Clean Air Act: Regulation, Compliance and Reporting	
ENVR 5443	Hazardous Waste Regulations for Environmental Managers	
ENVR 5453	Bioremediation for Environmental Managers	
ENVR 5523	Industrial Ecology	
ENVR 5543	Environmental Management Systems	
ENVR 5573	Applied Standards for Environmental Managers	
ENVR 5633	Physical Geology for Environmental Managers	
ENVR 5703	Chemical Aspects of Environmental Science I	
ENVR 5713	Chemical Aspects of Environmental Science II	
ENVR 5733	Environmental Site Assessment	
ENVR 5743	Environmental Impact Assessment	
ENVR 5753	Environmental Site Remediation	
ENVR 5823	Watershed Management	
ENVR 5853	Field Stream Assessment	
Hours Subtotal		**18**
Total Hours		**33**

Learn more about Graduate College 2025-2026 Professional Science Master's Degree Program (MPSM Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Family and Community Services, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Core Courses		
HDFS 5173	Program Design, Implementation, and Evaluation in Human Development and Family Science	3
HDFS 5213	Lifespan Development	3
HDFS 5223	Resilience in Individuals and Families	3
HDFS 5443	Interpersonal Relationships	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5553	Perspectives on Parenting and Parent Education	3
HDFS 5713	Individual and Family Resource Management	3
HDFS 5753	Leadership and Management of Community Service Programs	3
HDFS 5913	Foundations and Principles of Family and Community Services	3
HDFS 5923	Dynamics of Family Interaction	3
Outside Electives		
Select 3 hours with advisor approval (students work with their advisor to choose at least one elective appropriate to their career goals)		3
Creative Component		
HDFS 5163	Master's Capstone in HDFS	3
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Family and Consumer Sciences Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Degree Core		
Required Courses		
HDFS 5823	History and Philosophy of Family and Consumer Sciences Education	3
HDFS 5833	Occupational Programs in Family and Consumer Sciences	3
HDFS 5843	Reading in the Content Areas of Family and Consumer Sciences Education	3
HDFS 5873	Technology in Family and Consumer Sciences Programs	3
HDFS 5953	Research Experience in Family and Consumer Sciences	3
HDFS 5963	Evaluation and Assessment in Family and Consumer Sciences Programs	3
HDFS 5993	Special Topics in Family and Consumer Sciences Education: 4-H and FCCLA	3
Choose One Specialization Course (3 Credit Hours)		*3*
HDFS 5973	Administration of Family and Consumer Sciences Education Programs	
HDFS 5983	Techniques of Supervision in Family and Consumer Sciences Programs	
Choose Three Electives (9 Credit Hours)		*9*
HDFS 5110	Directed Study in HDFS (3 Hours Allowed)	
HDFS 5853	Adolescent Learners in Family and Consumer Sciences Programs	
HDFS 5863	Exceptional Learners in Family and Consumer Sciences Programs	
HDFS 5883	Family and Consumer Sciences in a Pluralistic Society: Foundations and Issues	
HDFS 5893	Addressing Family Issues and Public Policy Through Family and Consumer Sciences Education	
HDFS 5903	Instructional Methods in Family and Consumer Sciences	
HDFS 5943	Development of Instructional Materials for Family and Consumer Sciences Programs	
Non-Thesis Project Requirement (3 Credit Hours)		
HDFS 5160	Master's Creative Component	3
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Family Financial Planning, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Degree Core		
Required Courses		
FFP 5243	Master's Capstone (Master's Creative Component)	3
FFP 5403	Estate Planning for Families	3
FFP 5453	Retirement Planning, Employee Benefits and the Family	3
FFP 5553	Insurance Planning for Families	3
FFP 5603	Investing for the Family's Future	3
FFP 5653	Personal Income Tax for Family Financial Planning	3
FFP 5803	Case Studies in Family Financial Planning	3
Hours Subtotal		**21**
Electives		
Select nine hours from the following:		9
FFP 5303	Fundamentals of Family Financial Planning	
FFP 5333	Theories and Research in Family Financial Planning I	
FFP 5353	Financial Counseling for Family Financial Planning	
FFP 5483	Military Family Financial Issues	
FFP 5503	Housing and Real Estate for Family Financial Planning	
FFP 5663	Survey of Digital Investment Assets	
FFP 5703	Professional Practices in Family Financial Planning	
EDHS 5110	Directed Studies in Education and Human Sciences	
FFP 5110	Directed Studies in Family Financial Planning	
Hours Subtotal		**9**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Fire and Emergency Management Administration, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
FEMP 5113	Fire and Emergency Services Administration Theory and Practice	3
FEMP 5123	Emergency Management Theory and Practice	3
FEMP 5013	Research Design & Methodology	3
Hours Subtotal		**9**
Methods/Research		
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	3
or FEMP 5023	Quantitative Methods for Fire and Emergency Management I	
or FEMP 6013	Qualitative Methods for Fire and Emergency Management	
Hours Subtotal		**3**
Administration		
FEMP 5413	Financial Administration for Fire and Emergency Management	3
or FEMP 5423	Labor Management for Fire and Emergency Management	
Hours Subtotal		**3**
Options		
Select 6 hours from one of the following options:		6
Emergency Management Option		
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 5233	Disaster Recovery	
FEMP 5243	Mitigation	
FEMP 5820	Special Topics Seminar in Emergency Management	
FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
Fire Administration Option		
FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
FEMP 5323	Leadership and Management for Fire and Emergency Management	
FEMP 5333	Incident Command	
FEMP 6413	Seminar Risk Theory and Management	
FEMP 5830	Special Topics Seminar in Fire Administration	
FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
Hours Subtotal		**6**
Electives		
Select 3 or more of these courses or any of the courses listed in this curriculum not already taken.		6
FEMP 5613	Complex Emergencies	
FEMP 5623	Emergency Management in the International Setting	
FEMP 5633	Emergency Management and Public Policy in the United States	
FEMP 5643	Politics of Disaster	
FEMP 5810	Special Topics Seminar in Fire and Emergency Management	
FEMP 6023	Quantitative Methods for Fire and Emergency Management II	
FEMP 6103	Proseminar in Fire and Emergency Management	
FEMP 6303	Populations at Risk	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6323	Organizational Behavior in Disasters	
FEMP 6840	Directed Readings in Fire and Emergency Management	
POLS 5673	Understanding and Responding to Terrorism	
Hours Subtotal		**6**
Thesis		
FEMP 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**33**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
FEMP 5113	Fire and Emergency Services Administration Theory and Practice	3
FEMP 5123	Emergency Management Theory and Practice	3
FEMP 5013	Research Design & Methodology	3
Hours Subtotal		**9**
Methods/Research		
FEMP 5653	Hazard, Vulnerability, and Risk Analysis	3
or FEMP 5023	Quantitative Methods for Fire and Emergency Management I	
or FEMP 6013	Qualitative Methods for Fire and Emergency Management	
Hours Subtotal		**3**
Administration		
FEMP 5413	Financial Administration for Fire and Emergency Management	3
or FEMP 5423	Labor Management for Fire and Emergency Management	
Hours Subtotal		**3**

Options		
Select 6 hours from one of the following options:		6
Emergency Management Option		
FEMP 5213	Disaster Response	
FEMP 5223	Preparedness and Planning	
FEMP 5233	Disaster Recovery	
FEMP 5243	Mitigation	
FEMP 5820	Special Topics Seminar in Emergency Management	
FEMP 6820	Advanced Special Topics Seminar in Emergency Management	
Fire Administration Option		
FEMP 5313	Political and Community Relations for Fire and Emergency Management Administration	
FEMP 5323	Leadership and Management for Fire and Emergency Management	
FEMP 5333	Incident Command	
FEMP 6413	Seminar Risk Theory and Management	
FEMP 5830	Special Topics Seminar in Fire Administration	
FEMP 6810	Advanced Special Topics Seminar in Fire Administration	
Hours Subtotal		**6**
Electives		
Select 3 or more of these courses or any of the courses listed in this curriculum not already taken.		9
FEMP 5613	Complex Emergencies	
FEMP 5623	Emergency Management in the International Setting	
FEMP 5633	Emergency Management and Public Policy in the United States	
FEMP 5643	Politics of Disaster	
FEMP 5810	Special Topics Seminar in Fire and Emergency Management	
FEMP 6023	Quantitative Methods for Fire and Emergency Management II	
FEMP 6103	Proseminar in Fire and Emergency Management	
FEMP 6303	Populations at Risk	
FEMP 6313	Comparative and International Dimensions of Emergency Management	
FEMP 6323	Organizational Behavior in Disasters	
FEMP 6840	Directed Readings in Fire and Emergency Management	
POLS 5673	Understanding and Responding to Terrorism	
Hours Subtotal		**9**
Practicum		
FEMP 5903	Practicum in Fire and Emergency Management Administration	3
Hours Subtotal		**3**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Food Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5000	Master's Research and Thesis	6
FDSC 5300	Food Science Seminar	1
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**19**
Electives		
Select 11 hours from the following:		11
FDSC 4123	Principles of Food Engineering	
FDSC 4243	Researching Consumer Food Preferences	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4333	Processed Meat	
FDSC 5102	Ethics and Professionalism in Animal and Food Science	
FDSC 5113	Internal Audit and Advanced HACCP	
FDSC 5120	Special Topics in Food Science	
FDSC 5143	Food Safety Modernization Act	
FDSC 5213	Advances in Meat Science	
FDSC 5233	Food Safety Audit Schemes	
FDSC 5333	Carcass Value Estimation Systems	
FDSC 5393	Issues in Food Science	
FDSC 5553	Interpreting Animal and Food Science Research	
Hours Subtotal		**11**
Total Hours		**30**

Formal Report Option

Total Hours: 32

Code	Title	Hours
Degree Core		
FDSC 4153	Advanced Food Microbiology	3
FDSC 4763	Analysis of Food Products	3
FDSC 5000	Master's Research and Thesis	2
FDSC 5300 Food Science Seminar (offered for fixed credit, 1 credit hour, maximum of 3 credit hours)		3
FDSC 5373	Advanced Food Chemistry	3
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**17**
Electives		
Select 15 hours from the following:		15
FDSC 4123	Principles of Food Engineering	
FDSC 4243	Researching Consumer Food Preferences	
FDSC 4253	Pre-Harvest Food Safety	
FDSC 4333	Processed Meat	
FDSC 5102	Ethics and Professionalism in Animal and Food Science	
FDSC 5113	Internal Audit and Advanced HACCP	
FDSC 5120	Special Topics in Food Science	
FDSC 5143	Food Safety Modernization Act	
FDSC 5213	Advances in Meat Science	
FDSC 5233	Food Safety Audit Schemes	
FDSC 5333	Carcass Value Estimation Systems	
FDSC 5393	Issues in Food Science	
FDSC 5553	Interpreting Animal and Food Science Research	
Hours Subtotal		**15**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis

Total Hours: 30

Code	Title	Hours
Required Courses		
FRNS 5000	Thesis Research & Seminar	6
FRNS 5013	Survey of Forensic Sciences	3
or FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5653	The Law and Expert Evidence	3
FRNS 5963	Forensic Statistics	3
Hours Subtotal		**18**
Electives		
Select 12 hours from the following:		12
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences (Maximum of 3 hours can apply to this degree)	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5243	Population Genetics for the Forensic Scientist	
FRNS 5253	Forensic Casework Training	
FRNS 5263	Forensic Casework Experience	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5293	Violence in Forensic Settings	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5303	Forensic Investigation of Impaired Vehicle Operation	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5613	Criminalistics and Evidence Analysis	
or FRNS 5013	Survey of Forensic Sciences	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5960	Forensic Problem Solving through Applied Research (Maximum of 3 hours can apply to this degree plan.)	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum of 6 hours can apply to this degree plan.)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum of 12 hours can apply to this degree.)	
FRNS 6083	Advanced Forensic Statistics	

FRNS 6123	Advanced Fire Dynamics
FRNS 6163	Blast Modeling
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation
FRNS 6183	Advanced Computer Fire Modeling
FRNS 6243	Historical Evolution of Forensic Genetics
FRNS 6263	Threat Assessment and Management of Violent Extremism
FRNS 6273	Threat Assessment and Management of Workplace Violence
FRNS 6283	Threat Assessment and Management of Violence in Schools
FRNS 6293	Threat Assessment and Management of Stalking
FRNS 6400	Case Studies in Forensic Science (Maximum of 9 hours can apply to this degree.)
FRNS 6423	Advanced Blast Injuries and Effects
FRNS 6513	Advanced Methods in Forensic Genetics
FRNS 6663	Network Forensics
FRNS 6673	Mobile Device Forensics
FRNS 6713	Applied Forensic Theory
FRNS 6733	Juvenile Issues in Forensic Sciences
FRNS 6933	Shooting Reconstruction for Examiners
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 9 hours can apply to this degree.)
Hours Subtotal	**12**

Other FRNS courses not listed may be used as electives with departmental permission.

Total Hours **30**

Non-Thesis (Creative Component)

Total Hours: 32

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
or FRNS 5013	Survey of Forensic Sciences	
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		**9**
Electives		
Select 23 hours from the following:		23
FRNS 5013	Survey of Forensic Sciences	
or FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5243	Population Genetics for the Forensic Scientist (Formerly FRNS 5242)	
FRNS 5253	Forensic Casework Training	
FRNS 5263	Forensic Casework Experience	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5293	Violence in Forensic Settings	
FRNS 5323	Forensic Microbiology	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5583	Data and Statistics in Forensic Crime Analysis	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	

FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences (Satisfies the non-thesis capstone requirement.)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum of 15 hours can apply to this degree.)	
FRNS 6123	Advanced Fire Dynamics	
FRNS 6183	Advanced Computer Fire Modeling	
FRNS 6263	Threat Assessment and Management of Violent Extremism	
FRNS 6273	Threat Assessment and Management of Workplace Violence	
FRNS 6283	Threat Assessment and Management of Violence in Schools	
FRNS 6293	Threat Assessment and Management of Stalking	
FRNS 6400	Case Studies in Forensic Science (Maximum of 9 hours can apply to this degree.)	
FRNS 6423	Advanced Blast Injuries and Effects	
FRNS 6663	Network Forensics	
FRNS 6673	Mobile Device Forensics	
FRNS 6683	Computer Forensics, Extractions and Analysis	
FRNS 6713	Applied Forensic Theory	
FRNS 6733	Juvenile Issues in Forensic Sciences	
FRNS 6903	Advanced Forensic Examination of Firearms	
FRNS 6913	Advanced Toolmark Examination and Identification	
FRNS 6933	Shooting Reconstruction for Examiners	
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 9 hours can apply to this degree.)	
Hours Subtotal		**23**
Other FRNS courses not listed may be used as electives with departmental permission.		
This degree requires completion of a capstone requirement.		
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Sciences: Arson, Explosives, Firearms and Toolmarks Investigation, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Non-Thesis (Creative Component)

Total Hours: 32

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
or FRNS 5013	Survey of Forensic Sciences	
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		**9**
Electives		
Select 23 hours of the following:		23
FRNS 5013	Survey of Forensic Sciences	
or FRNS 5613	Criminalistics and Evidence Analysis	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences (Maximum of 6 hours can apply to this degree.)	
FRNS 5103	The Chemistry of Pyrotechnics	
FRNS 5113	Essential Science for Explosive Operators	
FRNS 5123	Fire Dynamics in Forensic Investigations	
FRNS 5133	Ordnance Identification and Recognition	
FRNS 5143	Methods in Fire and Explosion Investigation NFPA 921/1033	
FRNS 5153	Explosives Research, Testing and Evaluation Methods	
FRNS 5183	Computer Fire Modeling	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5253	Forensic Casework Training	
FRNS 5263	Forensic Casework Experience	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5293	Violence in Forensic Settings	
FRNS 5333	Forensic Chemistry	
FRNS 5343	Forensic Investigation of Clandestine Laboratories	
FRNS 5353	Forensic Investigations Involving Radiological/Nuclear Materials	
FRNS 5363	Forensic Investigations of Chemical/ Biological Incidents	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5423	Blast Injuries and Effects	
FRNS 5443	Interdisciplinary Post Blast Investigation	
FRNS 5453	Fingerprints and Their Role in Forensic Science	
FRNS 5463	Blood Stain and Pattern Analysis	
FRNS 5473	Forensic Crime Scene Processing	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5573	Policing Strategies in Forensic Crime Analysis	
FRNS 5583	Data and Statistics in Forensic Crime Analysis	
FRNS 5643	Law and Expert Evidence: Firearms and Toolmarks	
FRNS 5663	Destructive Devices/Explosives: Law and Regulations	
FRNS 5673	Introduction to Forensic Intelligence Analysis	
FRNS 5683	Digital and Multimedia Evidence for Investigators	
FRNS 5693	Battlefield Forensics and the Global War on Terror	
FRNS 5703	Psychology of Forensic Intelligence Analysis	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5803	Circuit Exploitation of Destructive Devices	
FRNS 5813	Building Construction and Fire/Explosion Forensic Examination	
FRNS 5823	Forensic Examination of Fire Protection Systems	
FRNS 5833	Identification of Destructive Device Fuzing Systems	
FRNS 5853	Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 5873	Firearms and Toolmarks	
FRNS 5883	History of Firearm Identification	
FRNS 5893	Admissibility of Firearm Identification	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum 6 hours can apply to this degree.)	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences (Maximum 3 hours, satisfies capstone requirement.)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum of 15 hours can apply to this degree.)	
FRNS 6113	Advanced Energetic Materials Chemistry and Engineering	
FRNS 6123	Advanced Fire Dynamics	

FRNS 6163	Blast Modeling	
FRNS 6173	Advanced Interdisciplinary Post Blast Investigation	
FRNS 6183	Advanced Computer Fire Modeling	
FRNS 6263	Threat Assessment and Management of Violent Extremism	
FRNS 6273	Threat Assessment and Management of Workplace Violence	
FRNS 6283	Threat Assessment and Management of Violence in Schools	
FRNS 6293	Threat Assessment and Management of Stalking	
FRNS 6400	Case Studies in Forensic Science (Maximum 9 hours can apply to this degree.)	
FRNS 6423	Advanced Blast Injuries and Effects	
FRNS 6663	Network Forensics	
FRNS 6673	Mobile Device Forensics	
FRNS 6683	Computer Forensics, Extractions and Analysis	
FRNS 6733	Juvenile Issues in Forensic Sciences	
FRNS 6833	Advanced Identification of Destructive Device Fuzing Systems	
FRNS 6843	Advanced Destructive Device Circuit Exploitation	
FRNS 6853	Advanced Electrical Theory and Failure Analysis in Forensic Fire Investigations	
FRNS 6903	Advanced Forensic Examination of Firearms	
FRNS 6913	Advanced Toolmark Examination and Identification	
FRNS 6923	RCIED - Advanced Analysis and Mitigation	
FRNS 6933	Shooting Reconstruction for Examiners	
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum 9 hours can apply to this degree.)	
Hours Subtotal		**23**
Other FRNS courses not listed may be used as electives with departmental permission.		
This degree requires completion of a capstone requirement.		
Total Hours		**32**

Other Forensic Sciences: Arson and Explosives Investigation Requirements

- Creative Component

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Forensic Sciences: Forensic Science Administration, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Non-Thesis

Total Hours: 32

Code	Title	Hours
Required Courses		
FRNS 5063	Ethical Research and Scientific Writing	3
FRNS 5613	Criminalistics and Evidence Analysis	3
FRNS 5653	The Law and Expert Evidence	3
Hours Subtotal		**9**
Electives		
Select 23 hours from the following:		23
FRNS 5013	Survey of Forensic Sciences	
FRNS 5073	Quality Assurance in Forensic Science	
FRNS 5083	Ethics in Forensic Leadership	
FRNS 5090	Internship in Forensic Sciences (Maximum 3 hours can apply to this degree.)	
FRNS 5213	Molecular Biology for the Forensic Scientist	
FRNS 5243	Population Genetics for the Forensic Scientist	
FRNS 5273	Forensic Threat Assessment and Management	
FRNS 5282	Methods in Forensic Sciences	
FRNS 5323	Forensic Microbiology	
FRNS 5413	Forensic Pathology and Medicine	
FRNS 5513	Forensic Bioscience	
FRNS 5523	Forensic Toxicology	
FRNS 5533	Drug Toxicity	
FRNS 5543	Advanced Forensic Toxicology	
FRNS 5553	Introduction to Forensic Crime Analysis	
FRNS 5563	Theories in Forensic Crime Analysis	
FRNS 5622	Crime Scene Laboratory and Moot Court Experience	
FRNS 5713	Forensic Psychology	
FRNS 5723	Advanced Forensic Psychology	
FRNS 5733	Forensic Victimology	
FRNS 5743	Forensic Science Seminar	
FRNS 5753	Criminal Behavioral Analysis	
FRNS 5943	Forensic Management and Organizational Development	
FRNS 5963	Forensic Statistics	
FRNS 5970	Directed Readings in Forensic Sciences (Maximum 6 hours can apply to this degree.)	
FRNS 5980	Non-Thesis Creative Component in Forensic Sciences (Maximum 3 hours. Satisfies capstone requirement.)	
FRNS 5990	Special Topics in Forensic Sciences (Maximum 15 hours can apply to this degree.)	
FRNS 6273	Threat Assessment and Management of Workplace Violence	
FRNS 6990	Advanced Special Topics in Forensic Sciences (Maximum of 9 hours can apply to this degree.)	
Hours Subtotal		**23**
Other FRNS courses not listed may be used as electives with departmental permission.		
This degree requires completion of a capstone requirement.		
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

General Agriculture: Agribusiness, MAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Formal Report Option

Total Hours: 32

Code	Title	Hours
Required Courses		
Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010: [1]		12
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics [2]	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		**12**
Electives		
Select 20 hours of electives.		20
Hours Subtotal		**20**
Total Hours		**32**

1

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2

Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

Creative Component Option

Total Hours: 36

Code	Title	Hours
Required Courses		
Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010: [1]		12
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics [2]	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		**12**
Electives		
Select 24 hours of electives.		24
Hours Subtotal		**24**
Creative Component		
Select a creative component that might include AGEC 5990.		
Total Hours		**36**

1

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2

Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

Professional Internship Option

Total Hours: 36

Code	Title	Hours
Required Courses		
Select a minimum of 12 hours in Agricultural Economics not including AGEC 5000 or AGEC 5010: [1]		12
AGEC 5423	Agribusiness Management	
or AGEC 5043	Advanced Farm and Ranch Management	
AGEC 5603	Advanced Agricultural Finance	
MGMT 5113	Individual and Organizational Behavior	
STAT 5543	Applied Regression Analysis	
ECON 5113	Managerial Economics [2]	
or AGEC 5103	Mathematical Economics	
Hours Subtotal		**12**
Electives		
Select 18 hours of electives.		18
Hours Subtotal		**18**
Professional Internship		
AGEC 5010	Professional Experience in Agricultural Economics or Agribusiness	6
Hours Subtotal		**6**
Total Hours		**36**

1

Students with no background in accounting should take ACCT 5103. Students with strong skills in mathematics and statistics should take STAT 5543 in the fall instead of STAT 5013 and then take AGEC 5213 in the spring. The comprehensive final examination may be administered after the student has completed one year in the program.

2

Students who have had calculus should take AGEC 5103 instead of ECON 5113. Students with no upper-division training in microeconomics should take ECON 3113 before taking ECON 5113.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

General Agriculture: Agricultural Leadership, MAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Required Courses		
AECL 5101	Orientation to Graduate Programs in Agricultural Education, Communications and Leadership	1
Leadership		
AGLE 5303	Foundations of Leadership Theory	3
AGLE 5353	Leadership in Agriculture	3
AGLE 6203	Extension Program Development	3
or AECL 5863	Methods of Technological Change	
Hours Subtotal		**10**
Electives [1]		
Select 6 hours of AGED, AGLE or AGCM electives		6
Hours Subtotal		**6**
Electives/Area of Emphasis [1]		
Select 16 hours		16
Hours Subtotal		**16**
Total Hours		**32**

1

Area of Emphasis to be developed with the student's advisory committee.

Degree Requirement

Totals must include a minimum of 21 hours of 5000 or higher credit and a maximum of 9 transfer credit hours.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Geography, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
GEOG 5001	Professional Development in Geography	1
GEOG 5303	Geographic Analysis I	3
or GEOG 5423	Geographic Renderings in Qualitative Methods	
or GEOG 6313	Mixed Methods in Field Research	
GEOG 5403	Current Geographic Research	3
GEOG 5413	History and Philosophy of Geography	3
Hours Subtotal		**10**
Required Seminars		
Group I Seminar (Human)		
Select 3 hours from the following:		3
GEOG 5140	Seminar in Cultural Geography	
GEOG 5150	Geography of Sport, Recreation and Leisure Seminar	
GEOG 5443	Sustainable Tourism and Geography	
GEOG 6110	Seminar in Cultural and Political Ecology [1]	
GEOG 6120	Seminar in Urban Geography	
GEOG 6130	Seminar in Political Geography	
GEOG 6180	Seminar in Transportation Geography	
GEOG 6210	Seminar in Historical Geography	
Group II Seminar (Physical)		
Select 3 hours from the following:		3
GEOG 5023	Arid Lands and Drought	
GEOG 5063	Geoarchaeology and Environmental History	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5083	Grasslands and Savannas: Evolution and Environmental Issues	
GEOG 5113	Landscape Ecology	
GEOG 5123	International Resource Management	
GEOG 5163	Resource Management in the National Parks	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 6013	Seminar in Quaternary Paleoecology	
GEOG 6110	Seminar in Cultural and Political Ecology [1]	
Hours Subtotal		**6**
Electives		
Select 8 hours		8
Hours Subtotal		**8**
Thesis Hours		
GEOG 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

1

GEOG 6110 cannot satisfy both Group I and Group II requirements simultaneously.

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Required Courses		
GEOG 5001	Professional Development in Geography	1
GEOG 5303	Geographic Analysis I	3
or GEOG 5423	Geographic Renderings in Qualitative Methods	
or GEOG 6313	Mixed Methods in Field Research	
GEOG 5403	Current Geographic Research	3
GEOG 5413	History and Philosophy of Geography	3
Hours Subtotal		**10**
Required Seminars		
Group I Seminar (Human)		
Select 3 hours from the following:		3
GEOG 5140	Seminar in Cultural Geography	
GEOG 5150	Geography of Sport, Recreation and Leisure Seminar	
GEOG 5443	Sustainable Tourism and Geography	
GEOG 6110	Seminar in Cultural and Political Ecology [1]	
GEOG 6120	Seminar in Urban Geography	
GEOG 6130	Seminar in Political Geography	
GEOG 6180	Seminar in Transportation Geography	
GEOG 6210	Seminar in Historical Geography	
Group II Seminar (Physical)		
Select 3 hours from the following:		3
GEOG 5023	Arid Lands and Drought	
GEOG 5063	Geoarchaeology and Environmental History	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5083	Grasslands and Savannas: Evolution and Environmental Issues	
GEOG 5113	Landscape Ecology	
GEOG 5123	International Resource Management	
GEOG 5163	Resource Management in the National Parks	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 6013	Seminar in Quaternary Paleoecology	
GEOG 6110	Seminar in Cultural and Political Ecology [1]	
Hours Subtotal		**6**
Electives		
Select 20 hours		20
Hours Subtotal		**20**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

Geology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Coursework		
GEOL 5243	Research Methods and Techniques in Geosciences	3
Select 21 hours of the following courses. Not to exceed 12 hours of GEOL 5990 "Advanced Studies in Geology." Maximum 9 hours can be transferred with "B" or better. Courses from other academic units can be taken with approval of MS student Research Committee.		21
GEOL 5023	Petroleum Geology	
GEOL 5030	Geologic Field Investigation	
GEOL 5073	Geomorphology	
GEOL 5093	Quaternary Geology and Geochronology	
GEOL 5183	Paleontology and Paleoceanographic Reconstruction	
GEOL 5223	Advanced Methods in Structural Geology	
GEOL 5233	Trace Element Geochemistry	
GEOL 5213	Seismic Interpretation	
GEOL 5253	Petrology and Diagenesis of Clastic Rocks	
GEOL 5273	Depositional Systems	
GEOL 5300	Geology Colloquium	
GEOL 5283	Subsurface Geologic Methods	
GEOL 5313	Plate Tectonics	
GEOL 5333	Applied Geostatistics	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5363	Carbonate Depositional Systems	
GEOL 5383	Sequence Stratigraphy	
GEOL 5343	Advanced Petrophysics	
GEOL 5393	Stratigraphy of the Midcontinent	
GEOL 5403	Environmental Geochemistry	
GEOL 5413	Applied Petroleum Geology for Engineers	
GEOL 5433	Isotope Geochemistry	
GEOL 5453	Groundwater Modeling	
GEOL 5463	Physical Hydrogeology	
GEOL 5483	Petroleum Water Management	
GEOL 5513	Marine Geology	
GEOL 5523	Environmental Organic Geochemistry	
GEOL 5533	Organic Geochemistry	
GEOL 5443	Environmental Geophysics	
GEOL 5543	Introduction to Exploration Seismology	
GEOL 5573	Marine Biogeochemical Cycles	
GEOL 5583	Environmental Data Analytics	
GEOL 5603	Basin Evolution	
GEOL 5633	Exploration Prospect Evaluation	
GEOL 5753	Volcanology	
GEOL 5773	Planetary Geology	
GEOL 5893	Evolution of Sandstone Reservoirs	
GEOL 5990	Advanced Studies in Geology	
GEOL 5990	Advanced Studies in Geology (Plate Techtonics)	
GEOL 5990	Advanced Studies in Geology (Spectral Signal Processing)	
GEOL 5990	Advanced Studies in Geology (Seismic Data Processing)	
GEOL 6103	Gravity and Magnetic Methods	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6303	Electrical and Electromagnetic Methods	
GEOL 6363	Carbonate Reservoir Characterization	
GEOL 6373	Advanced Carbonate Petrology and Geochemistry	
GEOL 6386	Sequence Stratigraphy of Shales	
GEOL 6503	Rock Fractures	
GEOL 6553	Contaminant Hydrogeology	
Hours Subtotal		**24**
Thesis		
GEOL 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Report Option

Total Hours: 32

Code	Title	Hours
Required Coursework		
GEOL 5990	Advanced Studies in Geology	3
Select 29 hours of the following courses. Maximum 9 hours can be transferred. All courses are 3 hours.		29
GEOL 5023	Petroleum Geology	
GEOL 5030	Geologic Field Investigation	
GEOL 5073	Geomorphology	
GEOL 5093	Quaternary Geology and Geochronology	
GEOL 5100	Problems in Hydrogeology	
GEOL 5103	Introduction to Geophysical Exploration	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5143	Geological Remote Sensing	
GEOL 5183	Paleontology and Paleoceanographic Reconstruction	
GEOL 5223	Advanced Methods in Structural Geology	
GEOL 5213	Seismic Interpretation	
GEOL 5233	Trace Element Geochemistry	
GEOL 5243	Research Methods and Techniques in Geosciences	
GEOL 5253	Petrology and Diagenesis of Clastic Rocks	
GEOL 5273	Depositional Systems	
GEOL 5283	Subsurface Geologic Methods	
GEOL 5313	Plate Tectonics	
GEOL 5333	Applied Geostatistics	

GEOL 5343	Advanced Petrophysics
GEOL 5353	Advanced Well Log Analysis
GEOL 5363	Carbonate Depositional Systems
GEOL 5383	Sequence Stratigraphy
GEOL 5393	Stratigraphy of the Midcontinent
GEOL 5403	Environmental Geochemistry
GEOL 5433	Isotope Geochemistry
GEOL 5443	Environmental Geophysics
GEOL 5453	Groundwater Modeling
GEOL 5463	Physical Hydrogeology
GEOL 5483	Petroleum Water Management
GEOL 5513	Marine Geology
GEOL 5523	Environmental Organic Geochemistry
GEOL 5533	Organic Geochemistry
GEOL 5543	Introduction to Exploration Seismology
GEOL 5573	Marine Biogeochemical Cycles
GEOL 5583	Environmental Data Analytics
GEOL 5603	Basin Evolution
GEOL 5633	Exploration Prospect Evaluation
GEOL 5643	Seismic Data Processing
GEOL 5753	Volcanology
GEOL 5773	Planetary Geology
GEOL 5893	Evolution of Sandstone Reservoirs
GEOL 5990	Advanced Studies in Geology (Plate Techtonics)
GEOL 5990	Advanced Studies in Geology (Spectral Signal Processing)
GEOL 5990	Advanced Studies in Geology (Seismic Data Processing)
GEOL 6103	Gravity and Magnetic Methods
GEOL 6133	Unconventional Petroleum Reservoirs
GEOL 6283	Geology of Shales
GEOL 6303	Electrical and Electromagnetic Methods
GEOL 6363	Carbonate Reservoir Characterization
GEOL 6373	Advanced Carbonate Petrology and Geochemistry
GEOL 6386	Sequence Stratigraphy of Shales
GEOL 6503	Rock Fractures
GEOL 6553	Contaminant Hydrogeology
Total Hours	**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Geoscience, MPSM

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Core Courses		
Select 9 hours from the following:		9
GEOL 5213	Seismic Interpretation	
GEOL 5383	Sequence Stratigraphy	
GEOL 5223	Advanced Methods in Structural Geology	
GEOL 5333	Applied Geostatistics	
GEOL 5463	Physical Hydrogeology	
GEOL 5103	Introduction to Geophysical Exploration	
MBA 5300	Current Business Topics (Ethics)	
MBA 5400	Business Practicum (Project Management)	
MBA 5500	Interdisciplinary Inquiry in Business Administration (Descriptive Analytics)	
Hours Subtotal		**9**
Option Requirements		
Select 12 hours from appropriate option:		12
Geophysics		
GEOL 5103	Introduction to Geophysical Exploration	
GEOL 5213	Seismic Interpretation	
GEOL 5543	Introduction to Exploration Seismology	
GEOL 5990	Advanced Studies in Geology	
GEOL 6103	Gravity and Magnetic Methods	
GEOL 6303	Electrical and Electromagnetic Methods	
Petroleum Geology		
GEOL 5023	Petroleum Geology	
GEOL 5253	Petrology and Diagenesis of Clastic Rocks	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5283	Subsurface Geologic Methods	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5363	Carbonate Depositional Systems	
GEOL 5393	Stratigraphy of the Midcontinent	
GEOL 5603	Basin Evolution	
GEOL 6503	Rock Fractures	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6373	Advanced Carbonate Petrology and Geochemistry	
GEOL 6363	Carbonate Reservoir Characterization	
GEOL 6386	Sequence Stratigraphy of Shales	
Hydrogeology		
GEOL 5453	Groundwater Modeling	
GEOL 5463	Physical Hydrogeology	
GEOL 5483	Petroleum Water Management	
GEOL 6553	Contaminant Hydrogeology	
CIVE 5033	GIS Applications for Water Resources	
CIVE 5833	Introduction to Environmental Modeling	
CIVE 5913	Groundwater Hydrology	
CIVE 6843	Stochastic Methods in Hydrology	
SOIL 5223	Soil Chemical Processes and Impact on Environmental Quality	
SOIL 5483	Soil Bioremediation and Sustainability	
SOIL 5583	Soil Physics Measurement Techniques	
Hours Subtotal		**12**
Clusters		
Select any four courses - courses within a cluster can lead to a graduate certification. [1]		12
Big Data (online and certification available through CS)		
STAT 5093	Statistical Computing	
CS 5783	Machine Learning	
CS 5433	Big Data Management	
CS 5683	Big Data Analytics	
Business Administration (online and certification through Spears)		
MGMT 5113	Individual and Organizational Behavior	
ACCT 5183	MBA Financial Reporting	
FIN 5013	Business Finance	
ECON 5113	Managerial Economics	
MKTG 5133	Marketing Management	
Business Data Mining (online and certification through Spears)		
BAN 5733	Descriptive Business Analytics	
BAN 5743	Predictive Business Analytics	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Graduate Database Management	
Marketing Analytics (online and certification through Spears)		
MKTG 5733	Introduction to Marketing Analytics	
MKTG 5743	Advanced Marketing Analytics	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5303	Prescriptive Analytics	
Advanced Computing		
CS 5033	Parallel Algorithms and Programming	
CS 5123	Cloud Computing and Distributed Systems	
CS 5513	Numerical Computation	
STAT 5053	Time Series Analysis	
STAT 5063	Statistical Machine Learning with R	
CS 5793	Artificial Intell II	
ECEN 5733	Neural Networks	
Energy Management (courses available online and in Tulsa)		
FIN 5003	Introduction to Energy Business	
FIN 5363	Energy Finance	
PETE 5363	Petroleum Economics and Investments	
MSIS 5633	Predictive Analytics Technologies	
Environmental Engineering and Management		
CIVE 5713	Soil Mechanics	
CIVE 5813	Environmental Laboratory Analysis	
CIVE 4123	The Legal & Regulatory Environment of Civil Engineering	
SOIL 4893	Environmental Soil Chemistry	
Reservoir Management Cluster		
PETE 4303	Petroleum Rocks and Fluids	
PETE 4313	Drilling and Well Completions	

PETE 4333	Production Engineering	
PETE 4343	Reservoir Engineering and Well Testing	
PETE 5303	Petroleum Geomechanics	
PETE 5513	Directional Drilling	
GEO-Int		
GEOG 5263	Geospatial Applications for Unmanned Aerial Systems	
GEOG 5303	Geographic Analysis I	
GEOG 5343	Advanced Geographic Information Systems: Resource Management Applications	
GEOL 5990	Advanced Studies in Geology	
Hours Subtotal		**12**
Thesis		
Three hours of Capstone Project Course (Professional Internship with a research report)		3
Hours Subtotal		**3**
Total Hours		**36**

[1]

Most of the courses have prerequisites that can be waived with instructor's consent.

Retention Requirements

- The student will complete a Progress Report every semester in consultation with the mentor clearly highlighting previous achievements and immediate expectations, indicating how well the student is progressing towards degree completion.
- Enrollment in minimum of one course per semester or an approved leave of absence.

Graduation Requirements

- Completion of a capstone project to the satisfaction of the student's committee along with a written report
- No pending Incomplete ("I") grades in the coursework contributing towards the professional master's degree. A student can take more than 36 credit hours of course work. However, only 36 credit hours of coursework will be counted towards degree completion.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Global Health, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Required Courses		
GLHE 5103	Introduction to Global Health	3
or HCA 5103	Introduction to Global Health	
GLHE 5143	Relief and Development in Global Health	3
or HCA 5143	Relief and Development in Global Health	
GLHE 5153	International Health Systems	3
or HCA 5153	International Health Systems	
GLHE 5173	Emerging Global Infectious Diseases	3
or HCA 5173	Emerging Global Infectious Diseases	
Hours Subtotal		*12*
Electives		*20*
GLHE 5030	Problems and Issues in Global Health	
or HCA 5030	Problems and Issues in Global Health	
GLHE 5052	Directed Readings in Global Health	
or HCA 5052	Directed Readings in Health Care Administration	
GLHE 5123	Survey of Research and Evaluation in Health Care	
or HCA 5123	Survey of Research and Evaluation in Health Care	
GLHE 5183	Global Environmental and Occupational Health	
or HCA 5183	Global Environmental and Occupational Health	
GLHE 5193	Health Aspects of Disasters	
or HCA 5193	Health Aspects of Disasters	
GLHE 5273	Understanding Global Burden of Diseases	
or HCA 5273	Understanding Global Burden of Diseases	
GLHE 5020	Seminar in Global Health	
or HCA 5020	Seminar in Global Health	
HCA 5010	Special Topics in Health Care Administration	
HCA 5023	Human Resources in Health Care and Public Administration	
HCA 5033	Legal Issues in Health Care Administration	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5063	Health Care Compliance	
HCA 5083	The Financial Structure of Health Care Organizations	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5163	Healthcare Accounting and Auditing	
HCA 5213	Advanced Cases in Healthcare Finance	
HCA 5223	Ethics in Healthcare	
HCA 5263	Patient Safety, Quality Measurement & Improvement	
HCA 5333	American Indian & Alaska Natives Healthcare	
HCA 5353	Tribal Sovereignty	
HCA 5363	American Indian and Alaska Native Leadership and Ethics	
HCA 5373	Administrative Dimensions of American Indian and Alaska Natives Health	
HCA 5383	Tribal Health Cultural Dimensions	
HCA 5990	Internship in Health Care Administration	
HCA 5993	Clinical Operations Management	
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Global Studies, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 33

Code	Title	Hours
Core Course Requirements		
Required Hours		
GS 5013	Contemporary Issues in Global Studies	3
GS 5233	Global Competitive Environment	3
GS 5313	Global Communication and Public Diplomacy	3
GS 5413	Global Development	3
GS 5513	Global Crisis Management	3
Research Hours		
GS 5133	Research Design and Methods for Global Studies	3
Hours Subtotal		**18**
Focus Area Requirements		
Select 9 focus area hours		9
Select 6 Thesis hours		6
Hours Subtotal		**15**
Total Hours		**33**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Course Requirements		
Required Hours		
GS 5013	Contemporary Issues in Global Studies	3
GS 5233	Global Competitive Environment	3
GS 5313	Global Communication and Public Diplomacy	3
GS 5413	Global Development	3
GS 5513	Global Crisis Management	3
Research Hours		
GS 5133	Research Design and Methods for Global Studies	3
Hours Subtotal		**18**
Focus Area Requirements		
Select 12 focus area hours		12
Select 3 Creative Component or Internship hours		3
Hours Subtotal		**15**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Graphic Design, MFA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 60

Code	Title	Hours
Core Requirements		
Students are required to take three core graduate level studio courses—Graphic Design Studio; Motion Design Studio; and Interaction Design Studio-- three times for a total of 27 credit hours. Faculty will provide students with different design projects for each time they take a Studio. Three (3) additional Studio credits may be taken depending on the student's Plan of Study (POS).		27
ART 5420	Graduate Graphic Design Studio	
ART 5450	Graduate Motion Design Studio	
ART 5460	Graduate Interaction Design Studio	
Hours Subtotal		**27**
Graphic Design History		
ART 5423	Graduate Study in Graphic Design History	3
Graphic Design Seminar		
ART 5440	Graduate Special Topics in Graphic Design	3
Teaching Practicum		
ART 5413	Graduate Teaching Practicum in Graphic Design	3
Thesis		
Six hours from:		6
ART 5400	Graduate Study: Graphic Design Thesis	
Art History		
Select 3 hours		3
Students will choose among the many graduate-level classes that are available in the Department of Art, Graphic Design and Art History, including Art 5920, Art History Seminar, Art 5613, Art Since 1960, Art 5833, History of Chinese Art, Art 5763, etc.		
Hours Subtotal		**18**
Electives		**15**
Elective courses may include the following depending on the student's Plan of Study:		
Three (3) to six (6) credit hours of Graduate Level Courses: in Department of Art, Graphic Design and Art History; College of Education; Department of Design, Housing and Merchandising; Department of Computer Science		
Three (3) to six (6) credit hours of Graphic Design internship		
ART 5410	Graduate Graphic Design Internship	
Additional three (3) credit hours in Graduate Studio Class (Graphic Design, Motion Design and Interaction Design)		
ART 5420	Graduate Graphic Design Studio	
ART 5460	Graduate Interaction Design Studio	
Three (3) hours of thesis or Studio credits		
Hours Subtotal		**15**
Total Hours		**60**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health and Human Performance: Applied Exercise Science, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
Hours Subtotal		**6**
Departmental Electives		
Select 12 hours from the following:		12
HLTH 5113	Psychological Aspects of Health	
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5823	Applied Neuromuscular Physiology	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5303	Human Nutrition and Metabolism I	
BIOL 5215	Mammalian Physiology	
HHP 5843	Applied Biomechanics	
Hours Subtotal		**12**
Thesis		
HHP 5000	Master's Thesis	6
Total Hours		**36**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
HHP 5853	Clin Ex Test & Prescript	3
HHP 5873	Human Bioenergetics	3
Hours Subtotal		**6**
Departmental Electives		
Select 12 hours from the following:		12
HLTH 5113	Psychological Aspects of Health	
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5823	Applied Neuromuscular Physiology	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5303	Human Nutrition and Metabolism I	
BIOL 5215	Mammalian Physiology	
HHP 5843	Applied Biomechanics	
Hours Subtotal		**12**
Creative Component		
HHP 5030	Field Problems in Health and Human Performance	3
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health and Human Performance: Health Promotion, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
HLTH 5653	Foundations of Public Health Education and Promotion	3
HLTH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	3
Hours Subtotal		**12**
Departmental Electives		
Select 6 hours of the following:		6
HLTH 5113	Psychological Aspects of Health	
HLTH 5453	Cultural Issues In Health	
HLTH 5133	Environmental Health	
HLTH 5233	Sexuality and Health	
HLTH 5323	General Epidemiology	
Hours Subtotal		**6**
Thesis		
HLTH 5000	Thesis Research	6
Hours Subtotal		**6**
Total Hours		**36**

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
HLTH 5653	Foundations of Public Health Education and Promotion	3
HLTH 5683	Health Behavior Theory and Practice for Public Health	3
HLTH 5973	Designing Public Health Programs	3
HLTH 5983	Implementation and Evaluation of Public Health Programs	3
Hours Subtotal		**12**
Departmental Electives		
Select 9 hours of the following:		9
HLTH 5113	Psychological Aspects of Health	
HLTH 5453	Cultural Issues In Health	
HLTH 5133	Environmental Health	
HLTH 5233	Sexuality and Health	
HLTH 5323	General Epidemiology	
Hours Subtotal		**9**
Non-Thesis		
HLTH 5030	Field Experiences in Health Promotion	3
Hours Subtotal		**3**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health and Human Performance: Physical Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
Select approved courses.		6
Hours Subtotal		**6**
Departmental Electives		
Select 12 hours of the following:		12
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5873	Human Bioenergetics	
CIED 5043	Issues in Teaching	
EPSY 5663	Creativity for Teachers	
Hours Subtotal		**12**
Thesis		
HHP 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**36**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
or HHP 5053	Research Design in Leisure, Health and Human Performance	
HHP 5523	Current Readings in Health	3
Hours Subtotal		**12**
Required Courses		
Select approved courses.		6
Hours Subtotal		**6**
Departmental Electives		
Select 12 hours of the following:		12
HHP 5073	Psychological Aspects of Sport	
HHP 5733	Motor Learning	
HHP 5873	Human Bioenergetics	
CIED 5043	Issues in Teaching	
EPSY 5663	Creativity for Teachers	
Hours Subtotal		**12**
Non-Thesis		
HHP 5030	Field Problems in Health and Human Performance	3
Hours Subtotal		**3**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Health Care Administration, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Degree Core		
Required Courses		
HCA 5013	Survey of Health Care Administration	3
HCA 5033	Legal Issues in Health Care Administration	3
HCA 5093	Leadership Methods and Styles in Healthcare	3
HCA 5123	Survey of Research and Evaluation in Health Care	3
Hours Subtotal		**12**
Optional Electives		
Select 20 hours from the following:		20
HCA 5010	Special Topics in Health Care Administration (Clinical Operations Internship)	
HCA 5010	Special Topics in Health Care Administration	
HCA 5023	Human Resources in Health Care and Public Administration	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5063	Health Care Compliance	
HCA 5052	Directed Readings in Health Care Administration	
HCA 5083	The Financial Structure of Health Care Organizations	
HCA 5103	Introduction to Global Health	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5143	Relief and Development in Global Health	
HCA 5153	International Health Systems	
HCA 5163	Healthcare Accounting and Auditing	
HCA 5173	Emerging Global Infectious Diseases	
HCA 5193	Health Aspects of Disasters	
HCA 5213	Advanced Cases in Healthcare Finance	
HCA 5223	Ethics in Healthcare	
HCA 5233	Advanced Leadership Methods and Styles in Healthcare	
HCA 5263	Patient Safety, Quality Measurement & Improvement	
HCA 5990	Internship in Health Care Administration	
Hours Subtotal		**20**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

History, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Plan 1

Total Hours: 30

Code	Title	Hours
Required Courses		
Select 12 hours in a major field.		12
Select 9 hours from a minor field.		9
Hours Subtotal		**21**
Methods		
HIST 5023	Historical Methods	3
Hours Subtotal		**3**
Thesis		
HIST 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Plan II: Public History

Total Hours: 36

Code	Title	Hours
Required Courses		
HIST 5053	Museum Studies	3
or HIST 5063	Historic Preservation	
Select minimum of 9 hours of Seminar courses		9
Select courses per Plan of Study to complete degree requirements.		18
Hours Subtotal		**30**
Thesis		
HIST 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Horticulture, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Courses		
HORT 5020	Graduate Seminar	1
Select 3 hours of STAT at 5000-level or above		3
Select a minimum of 16 hours of additional HORT or related field (Plant Science, Soil Science, Plant Biology, Biochemistry or NREM)		16
Select 4 hours of HORT or related field		4
Hours Subtotal		**24**
Thesis		
HORT 5000	Master's Research and Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Formal Report Option

Total Hours: 36

Code	Title	Hours
Courses		
Select 28-34 hours (depending on whether 2 or 8 hours is taken in HORT 5110):		28-34
Select 3 hours of STAT in Undergraduate or Graduate transcript.		
HORT 5020	Graduate Seminar (1 hour)	
Select minimum of 16 hours of additional HORT or related field		
Select 8 to 14 hours from HORT or related field.		
Hours Subtotal		**28-34**
Thesis		
HORT 5110	Advanced Horticultural Problems	2-8
Hours Subtotal		**2-8**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Hospitality and Tourism Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Non-Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
HTM 5323	Hospitality and Tourism Financial Management	3
HTM 5413	Hospitality and Tourism Human Resources Management	3
HTM 5423	Hospitality and Tourism Marketing Management	3
HTM 5513	Hospitality and Tourism Strategic Management	3
HTM 5813	Research Methods and Analytics in Hospitality and Tourism	3
Hours Subtotal		**15**
Electives		
Select 15 hours, 9 of which must be HTM.		15
Hospitality and Tourism Management		
HTM 5090	International Hospitality Studies	
HTM 5233	Convention and Special Event Management	
HTM 5263	Applied Revenue Management in Hospitality and Tourism Management	
HTM 5503	Big Data Analytics in Hospitality and Tourism Management	
HTM 5850	Special Topics in the Hospitality and Tourism Industry	
HTM 5870	Current Issues in the Hospitality and Tourism Industry	
(Recommended Outside Elective Courses)		
Accounting and Finance		
ACCT 5103	Seminar in Contemporary Accounting Theory I	
ACCT 5183	MBA Financial Reporting	
ACCT 5283	MBA Managerial Accounting	
ACCT 5603	Advanced Accounting-based Information Systems	
Entrepreneurship		
EEE 5223	Entrepreneurial Marketing	
EEE 5263	Corporate Entrepreneurship	
EEE 5313	Emerging Enterprise Consulting	
Human Resources		
MGMT 5133	Total Rewards	
MGMT 5153	Talent Development	
MGMT 5543	Human Resource Analytics	
MGMT 5823	Talent Acquisition	
LSB 5423	Employment Law	
Management		
MGMT 5113	Individual and Organizational Behavior	
MGMT 5123	Org Design & Research	
MGMT 5223	Seminar in Human Resource Management	
MGMT 5313	Project Management	
MGMT 5533	Leadership Challenges	
Marketing		
BAN 5511	Web Analytics and Digital Marketing	
BAN 5521	GIS Applications in Marketing Analytics	
MKTG 5133	Marketing Management	
MKTG 5213	Services Marketing	
MKTG 5223	Entrepreneurial Marketing	
MKTG 5553	International Marketing Strategy	
MKTG 5613	Seminar in Consumer Behavior	
MKTG 5733	Introduction to Marketing Analytics	
MKTG 5743	Advanced Marketing Analytics	
Information and Technology		
MSIS 5123	Enterprise Resource Planning	
MSIS 5133	Advanced Web Based Application Development	
MSIS 5623	Information and Network Technology Management	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5643	Graduate Database Management	
MSIS 5673	Descriptive Analytics and Visualization	
Business Administration		
BADM 5513	Fundamentals of Business Analytics (Business Administation)	
Hours Subtotal		**15**
Total Hours		**30**

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
HTM 5413	Hospitality and Tourism Human Resources Management	3
or HTM 5323	Hospitality and Tourism Financial Management	
or HTM 5423	Hospitality and Tourism Marketing Management	
HTM 5513	Hospitality and Tourism Strategic Management	3
HTM 5813	Research Methods and Analytics in Hospitality and Tourism	3
REMS 5953	Statistical Methods in Education	3
or STAT 5013	Statistics for Experimenters I	
Hours Subtotal		**12**
Electives		
Select 12 hours, 6 of which need to be HTM		12
Hospitality and Tourism Management		
HTM 5090	International Hospitality Studies	
HTM 5233	Convention and Special Event Management	

HTM 5263	Applied Revenue Management in Hospitality and Tourism Management
HTM 5503	Big Data Analytics in Hospitality and Tourism Management
HTM 5850	Special Topics in the Hospitality and Tourism Industry
HTM 5870	Current Issues in the Hospitality and Tourism Industry
(Recommended Outside Elective Courses)	
Accounting and Finance	
ACCT 5103	Seminar in Contemporary Accounting Theory I
ACCT 5183	MBA Financial Reporting
ACCT 5283	MBA Managerial Accounting
ACCT 5603	Advanced Accounting-based Information Systems
Entrepreneurship	
EEE 5223	Entrepreneurial Marketing
EEE 5263	Corporate Entrepreneurship
EEE 5313	Emerging Enterprise Consulting
Human Resources	
MGMT 5133	Total Rewards
MGMT 5153	Talent Development
MGMT 5543	Human Resource Analytics
MGMT 5823	Talent Acquisition
LSB 5423	Employment Law
Management	
MGMT 5113	Individual and Organizational Behavior
MGMT 5123	Org Design & Research
MGMT 5223	Seminar in Human Resource Management
MGMT 5313	Project Management
MGMT 5533	Leadership Challenges
Marketing	
BAN 5511	Web Analytics and Digital Marketing
BAN 5521	GIS Applications in Marketing Analytics
MKTG 5133	Marketing Management
MKTG 5213	Services Marketing
MKTG 5223	Entrepreneurial Marketing
MKTG 5553	International Marketing Strategy
MKTG 5613	Seminar in Consumer Behavior
MKTG 5733	Introduction to Marketing Analytics
MKTG 5743	Advanced Marketing Analytics
Information and Technology	
MSIS 5123	Enterprise Resource Planning
MSIS 5133	Advanced Web Based Application Development
MSIS 5623	Information and Network Technology Management
MSIS 5633	Predictive Analytics Technologies
MSIS 5643	Graduate Database Management
MSIS 5673	Descriptive Analytics and Visualization
Business Administration	
BADM 5513	Fundamentals of Business Analytics

Hours Subtotal		**12**
Thesis		
HTM 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Hospitality and Tourism Management Requirements

- 50% of coursework must be in Hospitality and Tourism Management (HTM).
- No fewer than 27 semester hours of 5000-level courses.
- A student can only take a maximum of 3 credit hours of independent study (HTM 5870).
- All coursework must be approved by the committee.
- A Hospitality Internship is required of all students (can be waived with appropriate industry experience by graduate admission committee).
- Students may transfer a maximum of nine graduate credit hours with a grade of "B" or better to OSU with the approval of their advisory committee and the Dean of the Graduate College.
- All requirements must be completed within 7 years. No course on plan of study may be more than 10 years old at the time of graduation.
- None of the leveling credit hours can be included in the plan of study.
- Students entering the MS degree program must have a BS/BA degree in hospitality and tourism management or a related field and relevant work experience. Prerequisite courses will be required for students with other degrees and limited professional experience.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science: Aging Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Human Development and Family Science		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Research Methods and Statistics		
HDFS 5123	Research Methods and Design in HDFS	3
REMS 5953	Statistical Methods in Education	3
Aging Sciences Core		
HDFS 5013	Assessment for Aging Research	3
HDFS 5413	Aging in Human Development	3
HDFS 5483	Aging Network Seminar	3
HDFS 5493	Aging and Diverse Families	3
Aging Sciences Electives		
Select 6 hours from the following:		6
NSCI 5393	Nutrition and Aging	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5473	Recreation and Aging	
CPSY 5173	Gerontological Counseling	
Other courses as approved by committee.		
Thesis		
HDFS 5000	Master's Thesis	6
Total Hours		**36**

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Human Development and Family Science		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Research Methods and Statistics		
HDFS 5123	Research Methods and Design in HDFS	3
REMS 5953	Statistical Methods in Education	3
Aging Sciences Core		
HDFS 5013	Assessment for Aging Research	3
HDFS 5413	Aging in Human Development	3
HDFS 5483	Aging Network Seminar	3
HDFS 5493	Aging and Diverse Families	3
Aging Sciences Electives		
Select 9 hours from the following:		9
NSCI 5393	Nutrition and Aging	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5473	Recreation and Aging	
CPSY 5173	Gerontological Counseling	
Other courses as approved by committee.		
Non-Thesis		
HDFS 5163	Master's Capstone in HDFS	3
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science: Applied Human Services, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Degree Core		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Research Methods and Statistics		
HDFS 5123	Research Methods and Design in HDFS	3
REMS 5953	Statistical Methods in Education	3
Topics in Human Development and Family Science		
Select 6 credit hours in HDFS to be selected from the following courses or approved by advisor.		6
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5273	Parent Education	
HDFS 5513	Issues in Family Science	
HDFS 5563	Community and Family	
Hours Subtotal		**18**
Electives		
Students may choose electives from one of the following specializations OR choose electives with their advisory committee:		9-12
Aging Sciences		
HDFS 5413	Contemporary Perspectives in Adult Development and Aging	
HDFS 5423	Research Perspectives in Gerontology	
HDFS 5433	Theories of Aging	
HDFS 5483	Aging Network Seminar	
HDFS 5493	Aging and Diverse Families	
Early Childhood Education		
HDFS 5323	Issues in Early Childhood	
HDFS 5333	Early Childhood Education History and Theory	
HDFS 5353	Diversity in Early Childhood	
HDFS 5363	Early Childhood Development and Education	
Infant Mental Health		
HDFS 5193	Reflective Practice	
HDFS 5233	Infant Mental Health	
HDFS 5243	Infant and Early Childhood Development and Attachment	
HDFS 5343	Developmental Assessment and Interventions	
Intellectual and Developmental Disabilities		
HDFS 5193	Reflective Practice	
HDFS 5283	Developmental Disabilities	
HDFS 5623	Systems Theory and Applications to the Family	
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	
Hours Subtotal		**9-12**
Thesis/Non-Thesis Hours		
Select either thesis option (6 hours) or creative component option (3 hours).		3-6
HDFS 5000	Master's Thesis	
OR		
HDFS 5160	Master's Creative Component	
Hours Subtotal		**3-6**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science: Developmental and Family Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Required Courses		
Theoretical Foundations in Human Development and Family Science		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
Hours Subtotal		**6**
Research Methods and Statistics		
Choose one of the following options:		9
HDFS 5123	Research Methods and Design in HDFS	
STAT 5013	Statistics for Experimenters I	
STAT 5063	Statistical Machine Learning with R	
OR		
PSYC 5304	Quantitative Methods in Psychology I [1]	
PSYC 5314	Quantitative Methods in Psychology II [1]	
HDFS 6143	Structural Equation Modeling for HDFS Applications	
Hours Subtotal		**9**
Electives in Human Development and Family Science		
Select 9 credit hours in HDFS from the following courses or approved by advisor.		9
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5273	Parent Education	
HDFS 5283	Developmental Disabilities	
HDFS 5493	Aging and Diverse Families	
HDFS 5513	Issues in Family Science	
HDFS 5563	Community and Family	
Hours Subtotal		**9**
Thesis		
HDFS 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

1

If PSYC 5304 and PSYC 5314 are selected, total hours required for degree are increased by two.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science: Early Childhood Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Early Childhood Education Core		
HDFS 5323	Issues in Early Childhood	3
HDFS 5333	Early Childhood Education History and Theory	3
HDFS 5353	Diversity in Early Childhood	3
Human Development and Family Science Core		
HDFS 5213	Lifespan Development	3
or HDFS 5293	Human Development Theory	
HDFS 5523	Family Theory	3
Research Methods and Statistics		
HDFS 5123	Research Methods and Design in HDFS	3
Electives (3 hrs for thesis option)		
Selected elective courses in HDFS or approved by advisor.		3
HDFS 5543	Family Crisis and Trauma	
HDFS 5553	Perspectives on Parenting and Parent Education	
HDFS 5563	Community and Family	
HDFS 6273	Parent-Child Relations	
HDFS 5363	Early Childhood Development and Education	
Individual Research (thesis option only)		
(Requires MS Advisory Committee Approval)		
HDFS 5000	Master's Thesis	6
REMS 5953	Statistical Methods in Education (or Committee approved equivalent)	3
or STAT 5013	Statistics for Experimenters I	
Total Hours		**30**

Non-Thesis Option

Total Hours: 30

Code	Title	Hours
Early Childhood Education Core		
HDFS 5323	Issues in Early Childhood	3
HDFS 5333	Early Childhood Education History and Theory	3
HDFS 5353	Diversity in Early Childhood	3
Human Development and Family Science Core		
HDFS 5213	Lifespan Development	3
or HDFS 5293	Human Development Theory	
HDFS 5523	Family Theory	3
Research Methods and Statistics		
HDFS 5123	Research Methods and Design in HDFS	3
Electives		
Selected elective courses in HDFS or approved by advisor.		12
HDFS 5543	Family Crisis and Trauma	
HDFS 5563	Community and Family	
HDFS 5553	Perspectives on Parenting and Parent Education	
HDFS 5363	Early Childhood Development and Education (*For non-thesis option, this course will include a final report, portfolio, or capstone project.)	
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Human Development and Family Science: Marriage and Family Therapy, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 60

Code	Title	Hours
Required Courses		
AREA I. Theoretical Foundations		
HDFS 5613	Theoretical Models of Marriage and Family Therapy	3
HDFS 5623	Systems Theory and Applications to the Family	3
AREA II. Clinical Practice		
HDFS 5603	Pre-Practicum in Marriage and Family Therapy: Counseling Skills	3
HDFS 5633	Couples Treatment in Marriage and Family Therapy	3
HDFS 5643	Child and Adolescent Treatment in Marriage and Family Therapy	3
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	3
AREA III. Individual Development and Family Relations		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5583	Human Sexuality	3
HDFS 5503	Family Diversity	3
AREA IV. Professional Identity and Ethics		
HDFS 5663	Professionalism and Ethics in Marriage and Family Therapy	3
Standard Curriculum Clinical Experience Requirements		
HDFS 5690	Marriage and Family Therapy Practicum (Minimum of 15 months of practicum experience required and a minimum of 400 client contact hours.) [1]	12
AREA V. Research		
HDFS 5123	Research Methods and Design in HDFS	3
Area VI. Additional Learning		
All students are required to complete either thesis (6 hours of HDFS 5000 Masters Research and an advisor-approved statistics/research methods course) or complete a creative component (HDFS 5160) and six additional hours of elective courses.		
HDFS 5000	Master's Thesis	6
Select 3 hours from the following:		3
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Committee-approved equivalent		
Total Hours		**60**

1

Total hours for HDFS 5690 can range from 12-15. Any hours beyond 12 for this course increase the total hours required for this degree.

Non-Thesis Option

Total Hours: 60

Code	Title	Hours
Required Courses		
AREA I. Theoretical Foundations		
HDFS 5613	Theoretical Models of Marriage and Family Therapy	3
HDFS 5623	Systems Theory and Applications to the Family	3
AREA II. Clinical Practice		
HDFS 5603	Pre-Practicum in Marriage and Family Therapy: Counseling Skills	3
HDFS 5633	Couples Treatment in Marriage and Family Therapy	3
HDFS 5643	Child and Adolescent Treatment in Marriage and Family Therapy	3
HDFS 5653	Systemic Approaches to Psychopathology and Psychopharmacology	3
AREA III. Individual Development and Family Relations		
HDFS 5213	Lifespan Development	3
HDFS 5523	Family Theory	3
HDFS 5543	Family Crisis and Trauma	3
HDFS 5583	Human Sexuality	3
HDFS 5503	Family Diversity	3
AREA IV. Professional Identity and Ethics		
HDFS 5663	Professionalism and Ethics in Marriage and Family Therapy	3
Standard Curriculum Clinical Experience Requirements		
(minimum of 12 hours)		
HDFS 5690	Marriage and Family Therapy Practicum (Minimum of 15 months of practicum experience required and a minimum of 400 client contact hours.) [1]	12
AREA V. Research		
HDFS 5123	Research Methods and Design in HDFS	3
Area VI. Additional Learning		
All students are required to complete either thesis (6 hours of HDFS 5000 Masters Research and an advisor-approved statistics/research methods course) or complete a creative component (HDFS 5160) and six additional hours of elective courses.		
HDFS 5160	Master's Creative Component	3
Select two 3-credit hours courses of advisor-approved electives.		6
Total Hours		**60**

1

Total hours for HDFS 5690 can range from 12-15. Any hours beyond 12 for this course increase the total hours required for this degree.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Industrial Engineering and Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
Track Core		
Select 12 approved hours.		12
Select 6 hours of track supporting courses.		6
Hours Subtotal		**18**
Thesis		
IEM 5000	Master's Research and Thesis	6
Hours Subtotal		**6**
Electives		
Select 6 hours of graduate courses approved by the advisory committee.		6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Required Courses		
Track Core Courses		
Select 12 approved hours.		12
Select 12 hours of track-supporting courses.		12
Hours Subtotal		**24**
Electives		
Select one of the three options		9
Coursework Only Option (9 hours)		
Select 9 hours of graduate courses approved by the advisory committee.		
Independent Study Option (9 hours)		
Select 6 hours of graduate courses approved by the advisory committee.		
IEM 5350	Industrial Engineering Problems	
Internship/Practicum Option (9 hours)		
Select 3 to 6 hours of IEM 5020		
IEM 5020	Graduate Engineering Practicum	
Select 3-6 hours from graduate courses approved by the advisory committee.		
Hours Subtotal		**9**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Industrial Engineering and Management: Operations Research and Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		**9**
Specialty Core Courses		
IEM 5063	Network Optimization	3
IEM 5133	Stochastic Processes	3
IEM 5723	Data, Process and Object Modeling	3
Hours Subtotal		**9**
Electives		
Select six hours (including at least one IEM graduate-level course)		6
Hours Subtotal		**6**
Thesis		
IEM 5000	Master's Research and Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		**9**
Specialty Core Courses		
IEM 5063	Network Optimization	3
IEM 5133	Stochastic Processes	3
IEM 5723	Data, Process and Object Modeling	3
Hours Subtotal		**9**
Electives		
Select six hours (including at least one IEM graduate-level course)		6
Hours Subtotal		**6**
Additional Requirements		
Select one of the following options:		9
Option 1		
9 hours of additional approved electives		
Option 2		
IEM 5350	Industrial Engineering Problems	
6 hours of additional approved electives		
Option 3		
3-6 hours of IEM 5020 and/or IEM 5030 plus additional electives to equal 9 hours		
Hours Subtotal		**9**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Industrial Engineering and Management: Supply Chain and Logistics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		**9**
Specialty Core Courses		
IEM 5203	Facility Location, Warehousing and Transportation	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5763	Supply Chain Strategy	3
Hours Subtotal		**9**
Electives		
Select six hours (including at least one IEM graduate-level course)		6
Hours Subtotal		**6**
Thesis		
IEM 5000	Master's Research and Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Common Core		
IEM 5003	Probability and Statistics for Engineers	3
IEM 5013	Introduction to Optimization	3
IEM 5703	Discrete System Simulation	3
Hours Subtotal		**9**
Specialty Core Courses		
IEM 5203	Facility Location, Warehousing and Transportation	3
IEM 5633	Advanced Production and Inventory Control	3
IEM 5763	Supply Chain Strategy	3
Hours Subtotal		**9**
Electives		
Select six hours (including at least one IEM graduate-level course)		6
Hours Subtotal		**6**
Additional Requirements		
Select one of the following options:		9
Option 1		
9 hours of additional approved electives		
Option 2		
IEM 5350	Industrial Engineering Problems	
6 hours of additional approved electives		
Option 3		
3-6 hours of IEM 5020 and/or IEM 5030 plus additional electives to equal 9 hours		
Hours Subtotal		**9**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Integrative Biology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Seminar		
Select a minimum of two one-hour approved seminar classes.		2
5000-level or 6000-level courses		
Select a minimum of 22 hours of 5000-level courses or seminars, not including BIOL 5000. [1]		22
Thesis		
BIOL 5000	Research for Master's Thesis	6
Total Hours		**30**

1

Select a minimum of 15 hours of 5000-level courses or seminars, not including BIOL 5000 from one of the following prefixes: BIOL, MICR, PBIO, NREM, PSYC, ANSI, GEOG, GEOL, RES, ITOX, VBSC, VMED, ENTO, STAT, SMED, REMS, BIOC, MATH, ENVR, CHEM, BIOM, AGEC, AGED, NSCI, PLP, PLNT, HS, HDFS

Formal Report Option

Total Hours: 32

Code	Title	Hours
Seminar		
Select a minimum of two approved seminar classes.		2
5000-level or 6000-level courses		
Select a minimum of 28 hours of 5000-level courses or seminars, not including BIOL 5000. [2]		28
Report		
BIOL 5000	Research for Master's Thesis	2
Total Hours		**32**

2

Select a minimum of 19 hours of 5000-level courses or seminars, not including BIOL 5000 from one of the following prefixes: BIOL, MICR, PBIO, NREM, PSYC, ANSI, GEOG, GEOL, RES, ITOX, VBSC, VMED, ENTO, STAT, SMED, REMS, BIOC, MATH, ENVR, CHEM, BIOM, AGEC, AGED, NSCI, PLP, PLNT, HS, HDFS

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Interdisciplinary Studies, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Thesis		
6 Hours of Thesis (i.e. 5000 Master's Research and Thesis)		6
Hours Subtotal		**6**
Other Requirements		
Select one graduate research methodology (quantitative, qualitative or mixed-methods related) course as approved by advisory committee		3
Select 21 graduate hours in at least two disciplines (prefixes) as approved by advisory committee		21
Hours Subtotal		**24**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Coursework		
Select no more than 3 hours of research with a grade of "SR." [1]		1-3
Select one graduate research methodology (quantitative, qualitative or mixed-methods related) course as approved by advisory committee		3
Select 26-28 graduate hours in at least two disciplines (prefixes) as approved by advisory committee		26-28
Total Hours		**32**

1

May include a culminating experience (e.g., final report, internship, practicum, comprehensive exam, and portfolio or capstone project). Possible courses include such courses in the disciplinary foci the student and advisory committee have selected or GRAD 5990.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

International Agriculture, MAG

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Creative Component Option

Total Hours: 36

Code	Title	Hours
Core Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the following:		3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience [1, 2]	4
AGIN 5102	International Agriculture Creative Component	2
Hours Subtotal		**14**
Focus Area [3]		
The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/staff of the program. Example focus areas include but are not limited to: International Agricultural Development and Trade, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, or Production Agriculture and Food Security.		22
Hours Subtotal		**22**
Total Hours		**36**

1

International students may substitute another course for this requirement.

2

Must be a minimum four-week international experience.

3

Could include an additional international experience.

Professional Internship Option

Total Hours: 36

Code	Title	Hours
Core Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the following:		3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience [1, 2]	6
Hours Subtotal		**14**
Focus Area [3]		
The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/staff of the program. Example focus areas include but are not limited to: International Agricultural Development and Trade, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, or Production Agriculture and Food Security.		22
Hours Subtotal		**22**
Total Hours		**36**

1

International students may substitute another course for this requirement.

2

Must be a minimum four-week international experience.

3

Could include an additional international experience.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

International Agriculture, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Course Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the following:		3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience [1, 2]	1
Hours Subtotal		**9**
Research and Inquiry Core		
Quantitative/Qualitative		
Select one of the following:		3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantitative/qualitative course approved by the Graduate Advisory Committee		
Research Methods		
Select one of the following:		3
AGEC 5101	Research Methodology	
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
Or other quantitative or qualitative research methods course approved by the Graduate Advisory Committee		
AGIN 5000	Master's Thesis/Report in International Agriculture	6
Hours Subtotal		**12**
Focus Area		
The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/staff of the program. Example focus areas include but are not limited to: Rural Development, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, Community Engagement and Sustainabilty, or Production Agriculture and Food Security.		9
Hours Subtotal		**9**
Total Hours		**30**

1

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

Formal Report Option

Total Hours: 32

Code	Title	Hours
Course Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the following:		3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience [1, 2]	4
Hours Subtotal		**12**
Research and Inquiry Core		
Quantitative/Qualitative		
Select one of the following:		3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantitative/qualitative course approved by the Graduate Advisory Committee		
Research Methods		
Select one of the following:		3
AGEC 5101	Research Methodology	
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
Or other quantitative or qualitative research methods course approved by the Graduate Advisory Committee		

AGIN 5000	Master's Thesis/Report in International Agriculture	2
Hours Subtotal		**8**
Focus Area		
The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/staff of the program. Example focus areas include but are not limited to: Rural Development, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, Community Engagement and Sustainabilty, or Production Agriculture and Food Security.		12
Hours Subtotal		**12**
Total Hours		**32**

1

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

Creative Component

Total Hours: 32

Code	Title	Hours
Course Requirements		
AGIN 5312	Applied Issues in International Agriculture and Natural Resources	2
AGIN 5313	Global Food Security and Sustainability	3
Select one of the following:		3
AGIN 5113	Global Agricultural Development Communications	
AGIN 5213	Global Agricultural Entrepreneurship	
AGIN 5333	Guided Reading in International Agriculture and Natural Resources	
AGIN 5353	Advanced Case Studies in Agricultural Marketing and International Development	
AGIN 5413	Overview of Global Development	
AGIN 5800	International Agriculture Internship Experience [1, 2]	4
Hours Subtotal		**12**
Research and Inquiry Core		
Quantitative/Qualitative		
Select one of the following:		3
ECON 5213	Introduction to Econometrics	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
Or other quantitative/qualitative course approved by the Graduate Advisory Committee		
Research Methods		
Select one of the following:		3
AGEC 5101	Research Methodology	
AECL 5983	Social Sciences Research in Agricultural Sciences and Natural Resources	
SOIL 5112	Research Methods in Plant and Soil Sciences	
HORT 5233	Experimental Horticulture	
Or other quantitative or qualitative research methods course approved by the Graduate Advisory Committee		
AGIN 5102	International Agriculture Creative Component	2
Hours Subtotal		**8**
Focus Area		
The student will create an international agriculture focus area in consultation with the graduate advisory committee and faculty/staff of the program. Example focus areas include but are not limited to: Rural Development, Agricultural Entrepreneurship, Agricultural Outreach Education and Extension, Community Engagement and Sustainabilty, or Production Agriculture and Food Security.		12
Hours Subtotal		**12**
Total Hours		**32**

1

International students may substitute another course for the international experience requirement.

2

Must be a minimum four-week international experience.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Management Information Systems, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Degree Core		
Required Courses		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Cybersecurity Systems Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Advanced Data Wrangling	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems (Part-time students can replace with alternative 5000-level course)	3
Hours Subtotal		**21**
Electives [1]		
Select 9 Hours of Electives		9
Suggested Electives		
MSIS 5033	Information Systems Project Management	
MSIS 5133	Advanced Web Based Application Development	
MSIS 5213	Cybersecurity Systems Management	
MSIS 5243	Information Technology Forensics and Incident Response	
MSIS 5273	Legal and Ethical Issues in Information Technology	
MSIS 5303	Prescriptive Analytics	
MSIS 5633	Predictive Analytics Technologies	
MSIS 5683	Advanced Analytics Technologies	
MSIS 5950	Advanced Practicum	
Hours Subtotal		**9**
Total Hours		**30**

1

Appropriate substitutes, such as other upper-division Spears School of Business courses or upper-division courses from other colleges, can be made on a case-by-case basis.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Management Information Systems: Big Data Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Cybersecurity Systems Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Advanced Data Wrangling	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		**21**
Electives		
Select 9 hours from the following:		9
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5313	Supply Chain Analytics	
MSIS 5503	Statistics for Data Science	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Advanced Analytics Technologies	
Appropriate substitutions can be made on a case-by-case basis.		
Hours Subtotal		**9**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Management Information Systems: Cybersecurity, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Cybersecurity Systems Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Advanced Data Wrangling	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		**21**
Electives		
Select 9 hours from the following:		9
MSIS 5203	Advanced Infrastructure Development	
MSIS 5233	Advanced Applied Ethical Hacking	
MSIS 5253	Advanced System Certification and Accreditation	
MSIS 5273	Legal and Ethical Issues in Information Technology	
Appropriate substitutions can be made on a case-by-case basis.		
Hours Subtotal		**9**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Management Information Systems: Health Analytics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Common Core		
MSIS 5193	Programming for Data Science and Analytics I	3
MSIS 5213	Cybersecurity Systems Management	3
MSIS 5633	Predictive Analytics Technologies	3
MSIS 5663	Advanced Data Wrangling	3
MSIS 5693	Digital Transformation Strategy	3
MSIS 5713	Scripting Essentials	3
MSIS 5900	Practicum in Management Information Systems	3
Hours Subtotal		**21**
Health Analytics Requirements		
HCA 5013	Survey of Health Care Administration	3
Hours Subtotal		**3**
Electives		
Select 6 hours from the following:		6
MSIS 5223	Programming for Data Science and Analytics II	
MSIS 5303	Prescriptive Analytics	
MSIS 5313	Supply Chain Analytics	
MSIS 5673	Descriptive Analytics and Visualization	
MSIS 5683	Advanced Analytics Technologies	
Appropriate substitutions can be made on a case-by-case basis.		
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mass Communications, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 31

Code	Title	Hours
Core Courses		
MC 5651	Introduction to Graduate Study in Mass Communications	1
MC 5113	Methods of Research in Mass Communication	3
MC 5333	Media Theory	3
MC 5733	Responsibility in Mass Communication	3
Hours Subtotal		**10**
Select 15 hours from:		15
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5030	Independent Study in Mass Communication	
MC 5040	Media International Experience	
MC 5143	Diversity In Sports Media	
MC 5163	Mass Communication Law	
MC 5223	Mass Communication Research Analysis and Interpretation [1]	
MC 5253	International Mass Communication	
MC 5283	Citizen Branding	
MC 5323	Nation Branding	
MC 5383	Media Relations	
MC 5443	Sports Branding	
MC 5483	Nonprofit Branding	
MC 5520	Specialized Strategic Communications Applications	
MC 5540	Specialized Multimedia Journalism Applications	
MC 5560	Specialized Sports Media Applications	
MC 5603	Integrated Marketing Communication	
MC 5613	Storytellers Studio	
MC 5753	Media And Elections	
MC 5770	Seminar in Communication Media	
MC 5773	Censorship	
MC 5843	Sport Fanship	
MC 5883	Media Management	
MC 5933	Theories of Persuasion	
MC 5953	Strategic Health Communications Campaigns	
Other approved graduate-level electives (6 hours max)		
Hours Subtotal		**15**
Thesis		
MC 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**31**

1 An advanced research course is required for thesis track.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
MC 5651	Introduction to Graduate Study in Mass Communications	1
MC 5113	Methods of Research in Mass Communication	3
MC 5333	Media Theory	3
MC 5733	Responsibility in Mass Communication	3
Hours Subtotal		**10**
Select 15 hours from:		15
MC 5020	Advanced Practicum or Internship in Mass Communication	
MC 5030	Independent Study in Mass Communication	
MC 5040	Media International Experience	
MC 5143	Diversity In Sports Media	
MC 5163	Mass Communication Law	
MC 5223	Mass Communication Research Analysis and Interpretation	
MC 5253	International Mass Communication	
MC 5323	Nation Branding	
MC 5283	Citizen Branding	
MC 5383	Media Relations	
MC 5443	Sports Branding	
MC 5483	Nonprofit Branding	
MC 5520	Specialized Strategic Communications Applications	
MC 5540	Specialized Multimedia Journalism Applications	
MC 5560	Specialized Sports Media Applications	
MC 5603	Integrated Marketing Communication	
MC 5613	Storytellers Studio	
MC 5753	Media And Elections	
MC 5770	Seminar in Communication Media	
MC 5773	Censorship	
MC 5843	Sport Fanship	
MC 5883	Media Management	
MC 5933	Theories of Persuasion	
MC 5953	Strategic Health Communications Campaigns	
Other approved graduate-level electives (6 hours max)		
Hours Subtotal		**15**
Non-Thesis Options		
Select from the following degree completion options:		7
Creative Component:		

Additional MC Elective (3 graduate MC hours from list above)		
MC 5001	Capstone Project Prep	
MC 5010	Capstone Creative Project (3 hours)	
Practicum:		
MC 5020	Advanced Practicum or Internship in Mass Communication (6 hours)	
MC 5011	Experience Report	
Study Abroad:		
MC 5011	Experience Report	
MC 5040	Media International Experience	
Hours Subtotal		**7**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Materials Science and Engineering, MEN

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Core Courses		
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
Hours Subtotal		**15**
Electives		
Select 15 hours from the following:		15
MSE 5053	Smart Materials	
MSE 5123	Advanced Composites Manufacturing: Materials, Methods and Applications	
MSE 5153	Crystal Physics and Materials Properties	
MSE 5063	Biomedical Materials	
MSE 5073	Tissue Engineering	
MSE 5103	Electrical and Optical Properties of Ceramics	
MSE 5133	Solid Oxide Fuel Cells	
MSE 5143	Batteries and Supercapacitors for Energy Storage	
MSE 5583	Corrosion Engineering	
or MAE 5583	Corrosion Engineering	
MSE 5553	Fatigue and Fracture	
or MAE 5553	Fatigue and Fracture Mechanics	
MSE 5683	Thermodynamics and Thermostatistics of Materials (Introductory UG Material Science course or equivalent)	
or MAE 5683	Thermodynamics and Thermostatistics of Materials	
MSE 5200	Applied Innovation I	
or EEE 5200	Special Topics in Entrepreneurship	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
MAE 5503	Mechanics of Advanced Composites for Structural Design	
MAE 5543	Modern Materials	
ECEN 5843	Microelectronic Fabrication	
ECEN 6843	Advanced Microelectronic Fabrication	
MAE 5003	Advanced Biomaterials Science and Engineering	
Chemistry		
CHEM 5223	Polymer Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5283	Solid State Chemistry	
CHEM 6113	Analytical Spectroscopy	
CHEM 5613	Chemistry I	
CHEM 5960	Inorganic Chemistry II	
Physics		
PHYS 5613	Quantum Mechanics I	
PHYS 5663	Solid State Physics I	
PHYS 5713	Solid State Physics II	
PHYS 5960	Problems in Chemical Physics	
PHYS 6243	Semiconductors I	
PHYS 6313	Quantum Mechanics II	
Biological/Health Science		
BIOM 6175	Molcular And Cellular Biology	
Chemical Engineering		
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Electrical & Computer Engineering		
ECEN 6840	Photonics III: Microscopy I	
ECEN 6843	Advanced Microelectronic Fabrication	
ECEN 6850	Photonics III: Microscopy II	
ECEN 6860	Photonics III: Microscopy III and Image Processing	
ECEN 6890	Photonics IV: Semiconductor Synthesis and Devices III	
Mechanical & Aerospace Engineering		
MAE 5143	Tribology	
MAE 5243	Micro Flows	
MAE 5573	Continuum Mechanics	
MAE 5633	Advanced Thermal Energy Systems Analysis	
MAE 5993	Microstructural Mechanics	
MAE 6133	Surface Mechanics	
Graduate courses from other disciplines may be allowed but will require approval of the student's Graduate Advisory Committee and the MSE Graduate Program Coordinator prior to enrollment.		
Hours Subtotal		**15**
MSE 5022	Masters of Engineering Capstone Project	2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Materials Science and Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
MSE 5010	Materials Science and Engineering Seminar for Masters Students	0
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
Hours Subtotal		**15**
Electives		
Select 9 hours of the following:		9
MSE 5030	Independent Study in Materials Science and Engineering	
MSE 5053	Smart Materials	
MSE 5063	Biomedical Materials	
MSE 5073	Tissue Engineering	
MSE 5093	Fundamentals of Materials Science [1]	
MSE 5103	Electrical and Optical Properties of Ceramics	
MSE 5113	Diffraction in Materials	
or MAE 5113	Diffraction in Materials	
MSE 5123	Advanced Composites Manufacturing: Materials, Methods and Applications	
MSE 5133	Solid Oxide Fuel Cells	
MSE 5143	Batteries and Supercapacitors for Energy Storage	
MSE 5153	Crystal Physics and Materials Properties	
MSE 5173	Organic Electronic Materials and Devices	
MSE 5174	Fundamentals of Photovoltaics	
MSE 5193	Advanced Materials Processing [1]	
MSE 5200	Applied Innovation I	
or EEE 5200	Special Topics in Entrepreneurship	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
MSE 5553	Fatigue and Fracture	
MSE 5583	Corrosion Engineering	
or MAE 5583	Corrosion Engineering	
MSE 5693	Phase Transformations in Materials	
or MAE 5693	Phase Transformations in Materials	
MSE 5683	Thermodynamics and Thermostatistics of Materials	
or MAE 5683	Thermodynamics and Thermostatistics of Materials	
MAE 5503	Mechanics of Advanced Composites for Structural Design	
MAE 5543	Modern Materials	
ECEN 5843	Microelectronic Fabrication	
ECEN 6843	Advanced Microelectronic Fabrication	
The following related MS&E graduate courses currently offered in various departments at OSU are also available to satisfy degree requirements. MSE program approval will be required for registration		
Chemistry		
CHEM 5223	Polymer Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5283	Solid State Chemistry	
CHEM 6113	Analytical Spectroscopy	
CHEM 5623	Quantum Chemistry I	
CHEM 5963	Advanced Inorganic Chemistry	
Physics		
PHYS 5613	Quantum Mechanics I	
PHYS 5663	Solid State Physics I	
PHYS 5713	Solid State Physics II	
PHYS 5960	Problems in Chemical Physics	
PHYS 6243	Semiconductors I	
PHYS 6313	Quantum Mechanics II	
Biological/Health Science		
BIOM 6175	Molcular And Cellular Biology	
Chemical Engineering		
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Electrical and Computer Engineering		
ECEN 6840	Photonics III: Microscopy I	
ECEN 6843	Advanced Microelectronic Fabrication	
ECEN 6840	Photonics III: Microscopy I	
ECEN 6850	Photonics III: Microscopy II	
ECEN 6860	Photonics III: Microscopy III and Image Processing	
ECEN 6890	Photonics IV: Semiconductor Synthesis and Devices III	
Mechanical and Aerospace Engineering		
MAE 5143	Tribology	
MAE 5243	Micro Flows	
MAE 5573	Continuum Mechanics	
MAE 5633	Advanced Thermal Energy Systems Analysis	
MAE 5993	Microstructural Mechanics	
MAE 6133	Surface Mechanics	
Hours Subtotal		**9**
Thesis Research		
6 hours of MSE 5000		6
Hours Subtotal		**6**
Total Hours		**30**

1

With departmental approval, these courses may be substituted for a required MSE course.

Non-Thesis Option

Total Hours: 35

Code	Title	Hours
Required Courses		
MSE 5010	Materials Science and Engineering Seminar for Masters Students	0
MSE 5013	Advanced Thermodynamics of Materials	3
MSE 5023	Diffusion and Kinetics	3
MSE 5043	Advanced Materials Characterization	3
MSE 5093	Fundamentals of Materials Science	3
MSE 5193	Advanced Materials Processing	3
Hours Subtotal		**15**
Electives		
Select 18 hours of the following:		18
Materials Science and Engineering		
MSE 5030	Independent Study in Materials Science and Engineering	
MSE 5053	Smart Materials	
MSE 5063	Biomedical Materials	
MSE 5073	Tissue Engineering	
MSE 5093	Fundamentals of Materials Science [1]	
MSE 5103	Electrical and Optical Properties of Ceramics	
MSE 5113	Diffraction in Materials	
or MAE 5113	Diffraction in Materials	
MSE 5123	Advanced Composites Manufacturing: Materials, Methods and Applications	
MSE 5133	Solid Oxide Fuel Cells	
MSE 5143	Batteries and Supercapacitors for Energy Storage	
MSE 5153	Crystal Physics and Materials Properties	
MSE 5173	Organic Electronic Materials and Devices	
MSE 5174	Fundamentals of Photovoltaics	
MSE 5193	Advanced Materials Processing [1]	
MSE 5200	Applied Innovation I	
or EEE 5200	Special Topics in Entrepreneurship	
MSE 5223	Additive Manufacturing: Materials, Methods and Applications	
MSE 5553	Fatigue and Fracture	
MSE 5583	Corrosion Engineering	
or MAE 5583	Corrosion Engineering	
MSE 5693	Phase Transformations in Materials	
or MAE 5693	Phase Transformations in Materials	
MSE 5683	Thermodynamics and Thermostatistics of Materials	
or MAE 5683	Thermodynamics and Thermostatistics of Materials	
MAE 5543	Modern Materials	
ECEN 5843	Microelectronic Fabrication	
ECEN 6843	Advanced Microelectronic Fabrication	
The following related MS&E graduate courses currently offered in various departments at OSU are also available to satisfy degree requirements. MSE program approval will be required for registration		
Chemistry		
CHEM 5223	Polymer Chemistry	
CHEM 5263	Foundations of Inorganic Chemistry	
CHEM 5283	Solid State Chemistry	
CHEM 6113	Analytical Spectroscopy	
CHEM 5623	Quantum Chemistry I	
CHEM 5963	Advanced Inorganic Chemistry	
Physics		
PHYS 5613	Quantum Mechanics I	
PHYS 5663	Solid State Physics I	
PHYS 5713	Solid State Physics II	
PHYS 5960	Problems in Chemical Physics	
PHYS 6243	Semiconductors I	
PHYS 6313	Quantum Mechanics II	
Biological/ Health Science		
BIOM 6175	Molcular And Cellular Biology	
Chemical Engineering		
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
Electrical and Computer Engineering		
ECEN 6843	Advanced Microelectronic Fabrication	
ECEN 6840	Photonics III: Microscopy I	
ECEN 6850	Photonics III: Microscopy II	
ECEN 6860	Photonics III: Microscopy III and Image Processing	
ECEN 6890	Photonics IV: Semiconductor Synthesis and Devices III	
Mechanical and Aerospace Engineering		
MAE 5143	Tribology	
MAE 5243	Micro Flows	
MAE 5573	Continuum Mechanics	
MAE 5633	Advanced Thermal Energy Systems Analysis	
MAE 5993	Microstructural Mechanics	
MAE 6133	Surface Mechanics	
Independent Study		
2 hours required		2
Hours Subtotal		**20**
Total Hours		**35**

1

With departmental approval, these courses may be substituted for a required MSE course.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic

regulations for minimal GPA, language proficiency and other general requirements.

Mathematics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
Choose one of the following tracks:		18
Applied Track		
Select one of the following two courses:		
MATH 5023	Advanced Linear Algebra	
MATH 5043	Advanced Calculus I	
Select one of the following two courses:		
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
Select four of the following courses:		
MATH 5203	Intermediate Differential Equations	
MATH 5513	Introduction to Numerical Analysis	
MATH 5503	Introduction to Optimization	
MATH 5213	Fourier Analysis and Wavelets	
MATH 5233	Partial Differential Equations	
MATH 5243	Ordinary Differential Equations	
MATH 5253	Advanced Ordinary Differential Equations	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
MATH 5580	Case Studies in Applied Mathematics	
MATH 5593	Methods of Applied Mathematics	
Pure Track		
Option 1		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5303	General Topology	
MATH 5273	Functions of a Complex Variable	
Option 2		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
Select two of the following courses:		
MATH 5143	Real Analysis I	
MATH 5153	Real Analysis II	
MATH 5283	Complex Analysis I	
MATH 5293	Complex Analysis II	
MATH 5313	Geometric Topology	
MATH 6323	Algebraic Topology I	
MATH 5613	Algebra I	
MATH 5623	Algebra II	
Math Education Track		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5913	Introduction to Research in Mathematics Education	
Select one of the following courses:		
MATH 5713	Number Theory	
MATH 5753	Introduction to Cryptography	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5023	Advanced Linear Algebra	
Select three of the following (with exactly two in one area):		
Discrete Math		
MATH 5513	Introduction to Numerical Analysis	
MATH 5503	Introduction to Optimization	
MATH 5673	Combinatorics	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
CS 5723	Artificial Intelligence I	
Geometry		
MATH 5423	Geometry and Algorithms in Three-Dimensional Modeling	
MATH 5803	Groups and Representations	
CS 5143	Computer Graphics	
Statistics		
STAT 5543	Applied Regression Analysis	
STAT 5123	Probability Theory	
STAT 5223	Statistical Inference	
STAT 5013	Statistics for Experimenters I	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5063	Statistical Machine Learning with R	
STAT 5303	Experimental Designs	
Hours Subtotal		**18**
Additional Graduate Courses		
Electives		
Select 9 hours of electives (no more than 6 hours can be outside MATH, STAT or CS).		9
Thesis/Report		
MATH 5000	Master's Research and Thesis	6
Hours Subtotal		**15**
Total Hours		**33**

Non-Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
Choose one of the following tracks:		18
Applied Track		
Select one of the following two courses:		
MATH 5023	Advanced Linear Algebra	
MATH 5043	Advanced Calculus I	
Select one of the following two courses:		
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
Select four of the following courses:		
MATH 5203	Intermediate Differential Equations	
MATH 5513	Introduction to Numerical Analysis	
MATH 5503	Introduction to Optimization	
MATH 5213	Fourier Analysis and Wavelets	
MATH 5233	Partial Differential Equations	
MATH 5243	Ordinary Differential Equations	
MATH 5253	Advanced Ordinary Differential Equations	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
MATH 5563	Finite Element Methods for Partial Differential Equations	
MATH 5580	Case Studies in Applied Mathematics	
MATH 5593	Methods of Applied Mathematics	
Pure Track		
Option 1		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5303	General Topology	
MATH 5273	Functions of a Complex Variable	
Option 2		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5053	Advanced Calculus II	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
Select two of the following courses:		
MATH 5143	Real Analysis I	
MATH 5153	Real Analysis II	
MATH 5283	Complex Analysis I	
MATH 5293	Complex Analysis II	
MATH 5313	Geometric Topology	
MATH 6323	Algebraic Topology I	
MATH 5613	Algebra I	
MATH 5623	Algebra II	
Math Education Track		
Required:		
MATH 5043	Advanced Calculus I	
MATH 5913	Introduction to Research in Mathematics Education	
Select one of the following courses:		
MATH 5713	Number Theory	
MATH 5753	Introduction to Cryptography	
MATH 5003	Abstract Algebra I	
MATH 5013	Abstract Algebra II	
MATH 5023	Advanced Linear Algebra	
Select three of the following (with exactly two in one area):		
Discrete Math		
MATH 5513	Introduction to Numerical Analysis	
MATH 5503	Introduction to Optimization	
MATH 5673	Combinatorics	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
CS 5723	Artificial Intelligence I	
Geometry		
MATH 5423	Geometry and Algorithms in Three-Dimensional Modeling	
MATH 5803	Groups and Representations	
CS 5143	Computer Graphics	
Statistics		
STAT 5543	Applied Regression Analysis	
STAT 5123	Probability Theory	
STAT 5223	Statistical Inference	
STAT 5013	Statistics for Experimenters I	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5063	Statistical Machine Learning with R	
STAT 5303	Experimental Designs	
Hours Subtotal		**18**
Additional Graduate Courses		
Electives		
Select 12 hours of electives (no more than 6 hours can be outside MATH, STAT or CS).		12
Thesis/Report		
MATH 5000	Master's Research and Thesis	3
Hours Subtotal		**15**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mechanical and Aerospace Engineering, MEN

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Required Core		
Select 21 credit hours of MAE courses (5000- and 6000-level) that are approved for graduate credit.		21
Technical Electives		
Select 9 hours of graduate-level courses in BAE/CIVE/CHE/ECEN/IEM/MAE/MATH/MSE/PETE with the approval of the student's Graduate Advisory Committee and the MAE Graduate Coordinator. [1]		9
Capstone		
The Capstone requirement will be satisfied by enrollment in MAE 5010 and will require a term project or creative requirement.		
MAE 5010	Mechanical and Aerospace Engineering Projects	3
Total Hours		**33**

1

Graduate courses from other disciplines may be allowed but will require approval of the student's Graduate Advisory Committee and the MAE Graduate Coordinator prior to enrollment.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mechanical and Aerospace Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Required Courses		
Select 18 hours of MAE Graduate-Level Courses		18
Hours Subtotal		**18**
Technical Elective		
Select 6 hours		6
Hours Subtotal		**6**
Research Hours		
MAE 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Mechanical and Aerospace Engineering: Unmanned Aerial Systems, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Unmanned Aerial Systems Core:		
Select 12 hours from the following:		12
MAE 5083	Engineering Acoustics	
MAE 5233	Advanced Fluid Dynamics I	
MAE 5343	Advanced Aero Propulsion and Power	
MAE 5913	Advanced Aerodynamics	
MAE 5923	Guidance and Control of Aerospace Vehicles	
MAE 5943	Unsteady Aerodynamics and Aeroacoustics	
MAE 5963	Unmanned Aerial Systems Design and Analysis	
MAE 5973	Unmanned Aerial Systems Propulsion	
MAE 5983	Aircraft Certification and Test	
MAE 6313	Atmospheric Flight Control	
Mechanical and Aerospace Engineering Electives:		
Any MAE graduate-level course supporting UAS thesis research will be allowed with permission of the student's faculty advisory committee.		6
Technical Electives:		
Any graduate-level course will be allowed with permission of the student's faculty advisory committee.		6
MAE 5000	Master's Thesis	6
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Medical Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Program Core		
Select 2 credit hours of a capstone project completed towrad the end of the program from the following:		2
BIOM 5010	Special Topics in Biomedical Sciences	
FRNS 5990	Special Topics in Forensic Sciences	
HCA 5010	Special Topics in Health Care Administration	
GLHE 5052	Directed Readings in Global Health	
Electives		
30 customized credit hours of courses from either BIOM, FRNS, HCA, or GLHE. The ratio of coursework among the disciplines would be the ratio of the academic specialty of the three members of the faculty advisory committee. BIOM course are cross-listed with COM foundations and systems courses (PCME prefix) and clinical course (CLME prefix). HCA and GLHE courses are cross-listed and interchangeable.		30
Biomedical Sciences (including but not limited to the following courses)		
BIOM 5116	Clinical Anatomy	
BIOM 6762	Foundations in Medical Biochemistry	
BIOM 6743	Foundations in Medical Genetics, Molecular Biology and Development	
BIOM 6752	Foundations in Medical Cell and Tissue Biology	
BIOM 6771	Foundations in Medical Pharmacology	
BIOM 6781	Foundations in Medical Immunology	
BIOM 6793	Foundations in Medical Microbiology	
BIOM 6810	Structure and Function of the Human Cardiovascular System	
BIOM 6820	Structure and Function of the Human Gastrointestinal/Hepatic System	
BIOM 6830	Biomedical Perspectives on Human Hematology	
BIOM 6840	Structure and Function of the Human Musculoskeletal System	
BIOM 6850	Structure and Function of the Human Renal System	
BIOM 6860	Structure and Function of the Human Reproductive Systems and Reproductive Biology	
BIOM 6870	Structure and Function of the Human Respiratory System	
BIOM 6880	Biomedical Perspectives on Psychiatry	
BIOM 6900	Structure and Function of the Human Endocrine System	
BIOM 6910	Structure and Function of the Human Nervous System	
Or additional BIOM courses with faculty advisor and instructor approval.		
Forensic Sciences (including but not limited to the following courses)		
FRNS 5013	Survey of Forensic Sciences	
Or additional FRNS courses with faculty advisor and instructor approval.		
Health Care Administration (including but not limited to the following courses)		
HCA 5013	Survey of Health Care Administration	
Or additional HCA courses with faculty advisor and instructor approval		
Global Health (including but not limited to the following course)		
GLHE 5030	Problems and Issues in Global Health	
Or additional GLHE courses with faculty advisor and instructor approval		
Total Hours		**32**

Other Requirements

- Must maintain a GPA of 3.0 in all courses applicable to the MSMS
- Student must not earn a grade lower than a "C"

Microbiology, Cell and Molecular Biology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
MICR 5160	Seminar	1
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Hours Subtotal		**3**
Electives		
Select 21 hours from the following:		21
Non-zero ending MICR courses at the 5000-level		
Non-zero ending MICR courses at the 5000-level or above		
Hours Subtotal		**21**
Thesis		
MICR 5000	Thesis	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Courses		
MICR 5160	Seminar	1
MICR 5163	Foundations of Cellular Life	3
Six hours from:		6
MICR 5990	Special Problems	
Two hours from:		2
MICR 6120	Recent Advances in Microbiology	
Hours Subtotal		**12**
Electives		
Select 18 hours from the following:		18
MICR 6153	Molecular Microbial Genetics	
BIOL 5524	Biological Laboratory Instrumentation	
Non-zero ending MICR courses at the 5000-level		
Non-zero ending MICR courses at the 5000-level or above		
Hours Subtotal		**18**
Additional Requirements		
MICR 5000	Thesis	2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Music: Applied Music, MM

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Required Courses		
Courses in Pedagogy		
MUSI 5890	Special Studies in Music Pedagogy	2
MUSI 5733	Techniques of Pedagogy and Performance	3
MUSI 5842	Music Repertory	2
Courses in Performance		
MUSI 5002	Final Degree Performance	2
Eight hours from:		8
MUSI 5490	Lessons in Applied Music (Major Field)	
Hours Subtotal		**17**
Additional Requirements		
MUSI 5012	Final Degree Project and Oral Examination	2
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5972	Analytical Techniques in Music II	2
Hours Subtotal		**12**
Electives		
All Students in the Applied Music Track will complete 3 hours in Elective Courses in Music. Other courses may be counted as elective credits with the approval of the Graduate Coordinator.		3
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Music: Conducting, MM

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Required Courses		
Courses in Pedagogy		
MUSI 5512	Advanced Studies in Music Literature and Pedagogy I	2
MUSI 5522	Advanced Studies in Music Literature and Pedagogy II	2
MUSI 5733	Techniques of Pedagogy and Performance	3
Courses in Performance		
MUSI 5002	Final Degree Performance	2
MUSI 5712	Advanced Studies in Conducting I	2
MUSI 5722	Advanced Studies in Conducting II	2
MUSI 5742	Conducting Practicum	2
Hours Subtotal		**15**
Additional Requirements		
MUSI 5012	Final Degree Project and Oral Examination	2
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5972	Analytical Techniques in Music II	2
Hours Subtotal		**12**
Electives		
All students in the Applied Music Track will complete 3 hours in Elective Courses in Music. Other courses may be counted as elective credits with the approval of the Graduate Coordinator. [1]		5
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
Hours Subtotal		**5**
Total Hours		**32**

1

Admission to all ensembles is by audition.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Music: Multiple Woodwinds, MM

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Pedagogy Courses		
MUSI 5733	Techniques of Pedagogy and Performance	3
Hours Subtotal		**3**
Courses in Performance		
Eight hours from:		8
MUSI 5490	Lessons in Applied Music (Major Field)	
Six hours from:		6
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5002	Final Degree Performance	2
Hours Subtotal		**16**
Additional Required Courses		
MUSI 5113	Introduction to Graduate Studies in Music	3
MUSI 5750	Seminar in Music History	3
MUSI 5962	Analytical Techniques in Music I	2
MUSI 5012	Final Degree Project and Oral Examination	2
Hours Subtotal		**10**
Elective Courses in Music		
Select three hours from the following:		3
MUSI 5600	Chamber Ensembles	
MUSI 5610	University Bands	
MUSI 5620	Symphony Orchestra	
MUSI 5630	University Choral Ensembles	
MUSI 5480	Lessons in Applied Music (Minor Field)	
MUSI 5890	Special Studies in Music Pedagogy	
MUSI 5842	Music Repertory	
MUSI 5972	Analytical Techniques in Music II	
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimum of 23 hours of approved graduate-level coursework [1]		23
Hours Subtotal		**23**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		**7**
Total Hours		**30**

1

Total hours for thesis option could reach maximum of 36 depending on the courses selected.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum of 29 hours of approved graduate-level coursework		29
Hours Subtotal		**29**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Fisheries and Aquatic Ecology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimum of 23 hours of approved graduate-level coursework [1]		23
Hours Subtotal		**23**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		**7**
Total Hours		**30**

1

Total hours for thesis option could reach maximum of 36 depending on courses selected.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum of 29 hours of approved graduate-level coursework		29
Hours Subtotal		**29**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Forest Resources, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimum of 23 hours of approved graduate-level coursework [1]		23
Hours Subtotal		**23**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		**7**
Total Hours		**30**

1

Total hours for thesis option could reach maximum of 36 depending on courses selected.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum of 29 hours of approved graduate-level coursework		29
Hours Subtotal		**29**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Rangeland Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimum of 23 hours of approved graduate-level coursework [1]		23
Hours Subtotal		**23**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		**7**
Total Hours		**30**

1

Total hours for thesis option could reach maximum of 36 depending on courses selected.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum of 29 hours of approved graduate-level coursework		29
Hours Subtotal		**29**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Natural Resource Ecology and Management: Wildlife Ecology and Management, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Courses		
Select a minimum of 23 hours of approved graduate-level coursework [1]		23
Hours Subtotal		**23**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	6
Hours Subtotal		**7**
Total Hours		**30**

1

Total hours for thesis option could reach maximum of 36 depending on courses selected.

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Core Courses		
Select a minimum of 29 hours of approved graduate-level coursework		29
Hours Subtotal		**29**
Additional Requirements		
NREM 5020	Graduate Seminar	1
NREM 5000	Master's Thesis Report	2
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Nutritional Sciences: Dietetics Practice, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 32

Code	Title	Hours
Common Core		
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
Option Specific Core		
NSCI 5403	Contemporary Issues in Dietetics Practice	3
NSCI 5613	Nutrition Education and Behavior Change	3
NSCI 5713	Public Health Nutrition and Food Policy	3
Hours Subtotal		**22**
Electives		
Select 10 hours of the following:		10
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5033	Macronutrients in Human Nutrition	
NSCI 5043	Micronutrients in Human Nutrition	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5870	Problems in Nutritional Science	
NSCI 6033	Functional Foods and Phytochemicals	
HDFS 5413	Contemporary Perspectives in Adult Development and Aging	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HHP 5083	Physiology of Aging	
HHP 5853	Clin Ex Test & Prescript	
HHP 5873	Human Bioenergetics	
MPH 5133	Environmental Health	
MPH 5323	General Epidemiology	
MPH 5453	Cultural Issues in Health	
MPH 5653	Foundations of Public Health Education and Promotion	
MPH 5683	Health Behavior Theory and Practice for Public Health	
MPH 5973	Designing Public Health Programs	
MPH 5983	Implementation and Evaluation of Public Health Programs	
HCA 5013	Survey of Health Care Administration	
HCA 5030	Problems and Issues in Global Health	
HCA 5033	Legal Issues in Health Care Administration	
HCA 5103	Introduction to Global Health	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5153	International Health Systems	
EPSY 5103	Human Development in Psychology	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
Or other elective courses as approved by the committee.		
Hours Subtotal		**10**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Nutritional Sciences: Dietetics Research, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Hours

Total Hours: 36

Code	Title	Hours
Degree Core		
NSCI 5000	Master's Thesis	6
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
or REMS 5953	Statistical Methods in Education	
Hours Subtotal		**28**
Electives		
Select 8 hours from the following:		8
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5443	Precision Nutrition	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5870	Problems in Nutritional Science	
NSCI 6033	Functional Foods and Phytochemicals	
BIOC 5753	Biochemical Principles	
BIOC 6723	Signal Transduction	
BIOC 5102	Molecular Genetics	
BIOC 5112	Articulation of Research Logic	
BIOC 5824	Biochemical Laboratory Methods	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5013	Survey of Health Care Administration	
HCA 5030	Problems and Issues in Global Health	
HCA 5033	Legal Issues in Health Care Administration	
HCA 5103	Introduction to Global Health	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5153	International Health Systems	
HHP 5853	Clin Ex Test & Prescript	
HHP 5873	Human Bioenergetics	
HLTH 5113	Psychological Aspects of Health	
MPH 5323	General Epidemiology	
MPH 5453	Cultural Issues in Health	
MPH 5683	Health Behavior Theory and Practice for Public Health	
MPH 5973	Designing Public Health Programs	
MPH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6003	Analyses of Variance	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5083	Statistics for Biomedical Researchers	
STAT 5303	Experimental Designs	
EPSY 5403	Issues in Adolescent Development	
EPSY 5463	Psychology of Learning	
EPSY 5473	Psychology of Adult Learning	
EPSY 5603	Developmental Issues in Instruction	
EPSY 5983	Instructional Effectiveness in Higher Education	
Or other elective courses as approved by the committee.		
Hours Subtotal		**8**
Total Hours		**36**

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Degree Core		
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5412	Dietetic Internship Management Practicum	2
NSCI 5422	Dietetic Internship Clinical Practicum	2
NSCI 5432	Dietetic Internship Community Nutrition Practicum	2
NSCI 5643	Advanced Medical Nutrition Therapy	3
NSCI 5843	Non-thesis Graduate Capstone	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
or REMS 5953	Statistical Methods in Education	
Hours Subtotal		**25**
Electives		
Select 11 hours from the following:		11
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	

NSCI 5313	Dietary and Herbal Supplements
NSCI 5443	Precision Nutrition
NSCI 5553	Global Nutrition and Food Security
NSCI 5613	Nutrition Education and Behavior Change
NSCI 5713	Public Health Nutrition and Food Policy
NSCI 5870	Problems in Nutritional Science
NSCI 6033	Functional Foods and Phytochemicals
BIOC 5753	Biochemical Principles
BIOC 6723	Signal Transduction
BIOC 5102	Molecular Genetics
BIOC 5112	Articulation of Research Logic
BIOC 5824	Biochemical Laboratory Methods
CPSY 5473	Basic Counseling Skills
CPSY 5503	Multicultural Counseling
HCA 5013	Survey of Health Care Administration
HCA 5030	Problems and Issues in Global Health
HCA 5033	Legal Issues in Health Care Administration
HCA 5043	Organizational Leadership and Development in Health Care
HCA 5103	Introduction to Global Health
HCA 5113	Entrepreneurship and the Health Sciences
HCA 5133	Health Care Informatics
HCA 5153	International Health Systems
HHP 5853	Clin Ex Test & Prescript
HHP 5873	Human Bioenergetics
HLTH 5113	Psychological Aspects of Health
MPH 5323	General Epidemiology
MPH 5453	Cultural Issues in Health
MPH 5683	Health Behavior Theory and Practice for Public Health
MPH 5973	Designing Public Health Programs
MPH 5983	Implementation and Evaluation of Public Health Programs
REMS 6003	Analyses of Variance
SCFD 5913	Introduction to Qualitative Inquiry
STAT 5023	Statistics for Experimenters II
STAT 5043	Sample Survey Designs
STAT 5083	Statistics for Biomedical Researchers
STAT 5303	Experimental Designs
EPSY 5403	Issues in Adolescent Development
EPSY 5463	Psychology of Learning
EPSY 5473	Psychology of Adult Learning
EPSY 5603	Developmental Issues in Instruction
EPSY 5983	Instructional Effectiveness in Higher Education
Or other elective courses as approved by the committee.	
Hours Subtotal	**11**
Total Hours	**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Nutritional Sciences: Nutrition, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Core Requirements		
NSCI 5000	Master's Thesis	6
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**19**
Electives		
Select 11 hours of the following:		11
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5443	Precision Nutrition	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5870	Problems in Nutritional Science	
NSCI 6033	Functional Foods and Phytochemicals	
BIOC 5753	Biochemical Principles	
BIOC 6723	Signal Transduction	
BIOC 5102	Molecular Genetics	
BIOC 5112	Articulation of Research Logic	
BIOC 5824	Biochemical Laboratory Methods	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HCA 5013	Survey of Health Care Administration	
HCA 5033	Legal Issues in Health Care Administration	
HCA 5043	Organizational Leadership and Development in Health Care	
HCA 5103	Introduction to Global Health	
HCA 5113	Entrepreneurship and the Health Sciences	
HCA 5133	Health Care Informatics	
HCA 5153	International Health Systems	
HHP 5853	Clin Ex Test & Prescript	
HHP 5873	Human Bioenergetics	
HLTH 5113	Psychological Aspects of Health	
MPH 5133	Environmental Health	
MPH 5323	General Epidemiology	
MPH 5453	Cultural Issues in Health	
MPH 5653	Foundations of Public Health Education and Promotion	
MPH 5683	Health Behavior Theory and Practice for Public Health	
MPH 5973	Designing Public Health Programs	
MPH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6003	Analyses of Variance	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5023	Statistics for Experimenters II	
STAT 5043	Sample Survey Designs	
STAT 5083	Statistics for Biomedical Researchers	
STAT 5303	Experimental Designs	
Or other elective courses as approved by the committee.		
Hours Subtotal		**11**
Total Hours		**30**

Non-Thesis Option

Total Hours: 34

Code	Title	Hours
Core Requirements		
NSCI 5843	Non-thesis Graduate Capstone	3
NSCI 5123	Research Approaches and Translation in Nutritional Sciences	3
NSCI 5033	Macronutrients in Human Nutrition	3
NSCI 5043	Micronutrients in Human Nutrition	3
NSCI 5960	Master's Seminar in Nutritional Sciences	1
STAT 5013	Statistics for Experimenters I	3
Hours Subtotal		**16**
Electives		
Select 18 hours of the following:		18
NSCI 5023	Advanced Nutrition in the Pathophysiology of Chronic Disease	
NSCI 5133	Advanced Nutrition for Exercise and Sport	
NSCI 5363	Maternal and Child Nutrition	
NSCI 5313	Dietary and Herbal Supplements	
NSCI 5443	Precision Nutrition	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5613	Nutrition Education and Behavior Change	
NSCI 5643	Advanced Medical Nutrition Therapy	
NSCI 5713	Public Health Nutrition and Food Policy	
NSCI 5870	Problems in Nutritional Science	
NSCI 6033	Functional Foods and Phytochemicals	
BIOC 5753	Biochemical Principles	
BIOC 6723	Signal Transduction	
BIOC 5102	Molecular Genetics	
BIOC 5112	Articulation of Research Logic	
BIOC 5824	Biochemical Laboratory Methods	
CPSY 5473	Basic Counseling Skills	
CPSY 5503	Multicultural Counseling	
HCA 5013	Survey of Health Care Administration	

HCA 5033	Legal Issues in Health Care Administration
HCA 5043	Organizational Leadership and Development in Health Care
HCA 5103	Introduction to Global Health
HCA 5113	Entrepreneurship and the Health Sciences
HCA 5133	Health Care Informatics
HCA 5153	International Health Systems
HHP 5853	Clin Ex Test & Prescript
HHP 5873	Human Bioenergetics
HLTH 5113	Psychological Aspects of Health
MPH 5133	Environmental Health
MPH 5323	General Epidemiology
MPH 5453	Cultural Issues in Health
MPH 5653	Foundations of Public Health Education and Promotion
MPH 5683	Health Behavior Theory and Practice for Public Health
MPH 5973	Designing Public Health Programs
MPH 5983	Implementation and Evaluation of Public Health Programs
REMS 6003	Analyses of Variance
SCFD 5913	Introduction to Qualitative Inquiry
STAT 5023	Statistics for Experimenters II
STAT 5043	Sample Survey Designs
STAT 5083	Statistics for Biomedical Researchers
STAT 5303	Experimental Designs
Or other elective courses as approved by the committee.	
Hours Subtotal	**18**
Total Hours	**34**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Peace, Conflict, and Security Studies, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Core Courses		
Thematic Core		
POLS 5203	ProSeminar in International Relations	3
POLS 5253	Conflict Management and Peacebuilding	3
POLS 5403	ProSeminar in Comparative Politics	3
Methodology		
POLS 5103	Research Design	3
POLS 5013	Quantitative Methods	3
Hours Subtotal		**15**
Electives		
Must fulfill the following two areas (12 hours). Students must take at least one class in a different area:		12
Conflict & Peace Studies		
POLS 5210	Topics Seminar in International Relations	
POLS 5163	International Organization	
POLS 5673	Understanding and Responding to Terrorism	
POLS 5273	Diplomacy	
GEOG 6130	Seminar in Political Geography	
GS 5313	Global Communication and Public Diplomacy	
GS 5323	Nation Branding	
GS 5523	Transnational Criminal Organizations and the War on Drugs	
GS 5533	Complex Emergencies	
SOC 5583	Comparative Criminal Justice Systems	
Appropriate electives with approval of Director of Graduate Studies		
Justice & Sustainability		
POLS 5210	Topics Seminar in International Relations (Human Rights/Transitional Justice)	
POLS 5213	Seminar in the International Political Economy	
POLS 5410	Topics Seminar in Comparative Politics (Social Movements)	
POLS 5410	Topics Seminar in Comparative Politics (Electoral Integrity)	
POLS 5810	Seminar in Women and Politics	
FEMP 5623	Emergency Management in the International Setting	
GEOG 5073	Climate Change: Past, Present and Future	
GEOG 5233	Human Dimensions of Global Environmental Change	
GEOG 5243	Geography of the World's Indigenous Peoples	
GS 5043	Politics of the Global Economy	
GS 5413	Global Development	
GS 5553	Global Poverty and Inequality	
SOC 5333	Global Population and Social Problems	
SOC 5493	Seminar in Environmental Justice	
SOC 5653	Gender and the Middle East	
Hours Subtotal		**12**
Thesis or Report		
Select thesis or report:		6
POLS 5000	Thesis	
OR		
POLS 5100	Directed Study	
AND		
POLS 5020	Creative Component	
Hours Subtotal		**6**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Petroleum Engineering, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Core Courses		
PETE 5313	Advanced Drilling Modeling and Simulation	3
PETE 5333	Advanced Production and Flow Assurance	3
PETE 5373	Advanced Well Stimulation	3
Hours Subtotal		**9**
Thesis		
PETE 5000	Master's Thesis	6
Hours Subtotal		**6**
Electives		
Graduate-approved elective (PETE or other) courses, selected by the student with approval of the student's advisor.		15
Suggested Elective Courses		
Petroleum Engineering (PETE) Courses		
PETE 5303	Petroleum Geomechanics	
PETE 5343	Advanced Reservoir Engineering	
PETE 5363	Petroleum Economics and Investments	
PETE 5413	Advanced Well Design and Operational Analysis	
PETE 5513	Directional Drilling	
PETE 5613	Advanced Well Completions	
Mathematics (MATH) and Statistics (STAT) Courses		
5000-level advanced mathematics courses as approved by advisor		
5000-level advanced statistics courses as approved by advisor		
Other courses		
Any 4000-level course in PETE, MATH and STAT must be pre-approved by advisor as part of the plan of study.		
Hours Subtotal		**15**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Philosophy, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
Select 24 hours of approved courses.		24
Hours Subtotal		**24**
Research		
Select 6 hours of approved research courses.		6
Hours Subtotal		**6**
Total Hours		**30**

Formal Report Option

Total Hours: 32

Code	Title	Hours
Required Courses		
Select 30 hours of approved courses.		30
Hours Subtotal		**30**
Report		
Select 2 hours of approved report.		2
Hours Subtotal		**2**
Total Hours		**32**

Creative Component Option

Total Hours: 32

Code	Title	Hours
Required Courses		
Select 30 hours of approved courses.		30
Hours Subtotal		**30**
Creative Component		
Select 2 hours of approved coursework.		2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Physician Assistant Studies, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 124

Code	Title	Hours
PA 5011	Introduction to Pharmacology	1
PA 5021	Fundamentals of Medical Imaging	1
PA 5031	Introduction to Microbiology and Immunology	1
PA 5041	Laboratory Medicine	1
PA 5015	Human Anatomy	5
PA 5112	Developing the Physician Assistant I	2
PA 5121	Rural and Underserved Populations	1
PA 5114	Applied Clinical Medicine I	4
PA 5223	Gastrointestinal System	3
PA 5125	Nervous System	5
PA 5233	Psychiatry System	3
PA 5134	Applied Clinical Medicine II	4
PA 5163	Developing the Physician Assistant II	3
PA 5124	Cardiovascular System	4
PA 5113	Respiratory System	3
PA 5132	Hematology System	2
PA 5144	Genitourinary System	4
PA 5273	Applied Clinical Medicine III	3
PA 5242	Developing the Physician Assistant III	2
PA 5243	Endocrine System	3
PA 5263	Musculoskeletal/Integumentary System	3
PA 5253	Reproductive System	3
PA 5301	Research Methods for Evidence-Based Medicine	1
PA 5302	Developing the Physician Assistant IV	2
PA 5404	Family Medicine I	4
PA 5414	Family Medicine II	4
PA 5424	Internal Medicine I	4
PA 5434	Internal Medicine II	4
PA 5444	Emergency Medicine I	4
PA 5454	Emergency Medicine II	4
PA 5464	Obstetrics & Gynecology	4
PA 5474	Pediatrics	4
PA 5484	Psychiatry	4
PA 5494	General Surgery	4
PA 5504	Medicine Elective I	4
PA 5514	Medicine Elective II	4
PA 5524	Medicine Elective III	4
PA 5544	Medicine Selective	4
PA 5554	Professional Enrichment	4
Total Hours		**124**

For more information on requirements, please visit https://medicine.okstate.edu/pa/prospective-students.html.

Physics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Hours Subtotal		**15**
Electives		
Select 9 hours from PHYS, MATH or an allied field in consultation with student's advisor.		9
Hours Subtotal		**9**
Thesis		
PHYS 5000	Master's Thesis Research or Report	6
Hours Subtotal		**6**
Total Hours		**30**

Report Option

Total Hours: 32

Code	Title	Hours
Required Courses		
PHYS 5113	Statistical Thermodynamics and Kinetic Theory	3
PHYS 5313	Electromagnetic Theory	3
PHYS 5413	Classical Mechanics	3
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Hours Subtotal		**15**
Electives		
Select 15 hours from PHYS or a related field in consultation with student's advisor.		15
Hours Subtotal		**15**
Non-Thesis		
PHYS 5000	Master's Thesis Research or Report (Report)	2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Physics: Optics and Photonics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Courses		
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Select 9 hours of Photonics core courses from the following with advisor approval:		9
PHYS 5123	Geometrical Optics	
PHYS 5163	Lasers	
PHYS 5303	Physical Optics	
ECEN 4843	Design of Lasers and Systems	
ECEN 5833	Fiber-Optic Communication Systems	
Hours Subtotal		**15**
Electives		
Select 9 hours from the two groups of electives with a minim of one course and a maximum of two from Group I. Courses at the graduate level from other departments may be substituted for electives in Group II with Physics Department permission, but alternate courses must have a strong connection to optics and photonics.		9
Group I		
PHYS 4813	Electromagnetic Radiation	
PHYS 5313	Electromagnetic Theory	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
Group II		
PHYS 5133	Laser Spectroscopy	
PHYS 5663	Solid State Physics I	
PHYS 6313	Quantum Mechanics II	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
ECEN 4823	Design of Optical Systems	
ECEN 5843	Microelectronic Fabrication	
ECEN 5853	Ultrafast Optoelectronics	
ECEN 5793	Digital Image Processing	
Hours Subtotal		**9**
Thesis/Research		
Select 6 hours (or more) of supervised research with submission of an approved thesis.		
PHYS 5000	Master's Thesis Research or Report (Or equivalent)	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Courses		
PHYS 5453	Mathematical Methods for Physicists	3
PHYS 5613	Quantum Mechanics I	3
Select 9 hours of Photonics core courses from the following with advisor approval:		9
PHYS 5123	Geometrical Optics	
PHYS 5163	Lasers	
PHYS 5303	Physical Optics	
ECEN 4843	Design of Lasers and Systems	
ECEN 5833	Fiber-Optic Communication Systems	
Hours Subtotal		**15**
Electives		
Select 9 hours from the two groups of electives with a minim of one course and a maximum of two from Group I. Courses at the graduate level from other departments may be substituted for electives in Group II with Physics Department permission, but alternate courses must have a strong connection to optics and photonics.		9
Group I		
PHYS 4813	Electromagnetic Radiation	
PHYS 5313	Electromagnetic Theory	
PHYS 6713	Advanced Electromagnetic Radiation	
ECEN 5613	Electromagnetic Theory	
Group II		
PHYS 5133	Laser Spectroscopy	
PHYS 5663	Solid State Physics I	
PHYS 6313	Quantum Mechanics II	
PHYS 6413	Nonlinear Optics	
PHYS 6423	Quantum Optics	
ECEN 4823	Design of Optical Systems	
ECEN 5843	Microelectronic Fabrication	
ECEN 5853	Ultrafast Optoelectronics	
ECEN 5793	Digital Image Processing	
Hours Subtotal		**9**
Additional Electives		
Select 6 hours of advanced courses at the graduate level.		6
Hours Subtotal		**6**
Report		
Students must complete a two-credit hour report.		2
Hours Subtotal		**2**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Plant and Soil Sciences, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Course Requirements		
Select 24 hours from the following:		24
A minimum of 15 hours of 5000-level or higher courses that include:		
PLNT 5020	Graduate Seminar	
or SOIL 5020	Graduate Seminar	
SOIL 5131	Professional Development Colloquium in Plant and Soil Sciences	
PLNT 5110	Problems and Special Study	
or SOIL 5110	Problems and Special Study	
9 hours of MATH (including at least 3 hours of STAT in combined BS and MS programs):		
No more than 9 credit hours of 3000- or 4000-level coursework approved for graduate credit.		
Recommended courses at the discretion of the graduate committee that students emphasizing soil science should complete 4 of the 5 courses listed below (or equivalent) during their undergraduate or graduate programs:		
SOIL 5353	Advanced Soil Genesis and Classification	
SOIL 5234	Soil Nutrient Management	
SOIL 5223	Soil Chemical Processes and Impact on Environmental Quality	
SOIL 5683	Soil, Water, and Weather	
or SOIL 6583	Soil Physics Theory	
SOIL 5383	Advanced Soil Microbiology	
A student may take a maximum of 3 research credit hours. Research hours are to be taken to document student effort in areas not associated with the students thesis. All students must indicate on their Plan of Study whether or not their research will involve human subjects. If human subjects are to be used, approval must be received from the Institutional Research Board (IRB) prior to the beginning of the research.		
PLNT 5230	Research	
or SOIL 5230	Research	
Hours Subtotal		**24**
Thesis		
PLNT 5000	Master's Thesis	6
or SOIL 5000	Master's Thesis	
Hours Subtotal		**6**
Total Hours		**30**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Plant Biology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 30

Code	Title	Hours
Required Courses		
PBIO 5110	Special Topics in Plant Biology (Professional Development)	1
PBIO 5000	Master's Thesis	6
Two hours from:		2
PBIO 5850	Plant Biology Seminar	
Hours Subtotal		**9**
Electives		
At least 3 graduate courses totaling 9 credit hours at the 5000 level or higher and remaining hours at 5000 level or higher from BIOC, BIOL, CHEM, CS, ENVR, GENE, GEOG, GEOL, MATH, MICR, PBIO, PHYS, PLNT, NREM, STAT		21
Hours Subtotal		**21**
Total Hours		**30**

Additional Plant Biology Requirements

- `Minimum of "B" in all courses`
- `Research Proposal Defense`
- `Teaching one semester as a Graduate Teaching Assistant`

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Politics and Policy Studies, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 33

Code	Title	Hours
Core Courses		
POLS 5203	ProSeminar in International Relations	3
or POLS 5403	ProSeminar in Comparative Politics	
POLS 5613	Public Policy Analysis	3
POLS 5703	ProSeminar in American Politics	3
Methods Courses		
POLS 5013	Quantitative Methods	3
POLS 5103	Research Design	3
Thesis		
POLS 5000	Thesis	6
Hours Subtotal		**21**
Electives		
Any POLS graduate-level courses		12
Up to 9 credit hours of electives can be taken outside the department from the list below:		
AGEC 5073	Rural Economics Development	
ENVR 5433	Environmental Law for Management Professionals	
ENVR 5823	Watershed Management	
FEMP 5633	Emergency Management and Public Policy in the United States	
GEOG 5123	International Resource Management	
GEOG 5133	Environment and Development	
GEOG 5233	Human Dimensions of Global Environmental Change	
GLHE 5030	Problems and Issues in Global Health	
GLHE 5103	Introduction to Global Health	
GLHE 5153	International Health Systems	
HDFS 5153	Policy in Human Development and Family Science	
NSCI 5553	Global Nutrition and Food Security	
SOC 5463	Seminar in Environmental Sociology	
SOC 5553	Seminar in Medical Sociology	
SOC 5583	Comparative Criminal Justice Systems	
Hours Subtotal		**12**
Total Hours		**33**

Creative Component Option

Total Hours: 33

Code	Title	Hours
Core Courses		
POLS 5203	ProSeminar in International Relations	3
or POLS 5403	ProSeminar in Comparative Politics	
POLS 5613	Public Policy Analysis	3
POLS 5703	ProSeminar in American Politics	3
Methods Courses		
POLS 5013	Quantitative Methods	3
POLS 5103	Research Design	3
Creative Component		
POLS 5020	Creative Component	3
POLS 5100	Directed Study	3
Hours Subtotal		**21**
Electives		
Any POLS graduate-level courses		12
Up to 9 credit hours of electives can be taken outside the department from the list below:		
AGEC 5073	Rural Economics Development	
ENVR 5433	Environmental Law for Management Professionals	
ENVR 5823	Watershed Management	
FEMP 5633	Emergency Management and Public Policy in the United States	
GEOG 5123	International Resource Management	
GEOG 5133	Environment and Development	
GEOG 5233	Human Dimensions of Global Environmental Change	
GLHE 5030	Problems and Issues in Global Health	
GLHE 5103	Introduction to Global Health	
GLHE 5153	International Health Systems	
HDFS 5153	Policy in Human Development and Family Science	
NSCI 5553	Global Nutrition and Food Security	
SOC 5463	Seminar in Environmental Sociology	
SOC 5553	Seminar in Medical Sociology	
SOC 5583	Comparative Criminal Justice Systems	
Hours Subtotal		**12**
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Public Health, MPH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
or HLTH 5653	Foundations of Public Health Education and Promotion	
MPH 5203	Evidence-Based Approaches to Public Health	3
or REMS 5953	Statistical Methods in Education	
MPH 5323	General Epidemiology	3
or HLTH 5323	General Epidemiology	
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
Select 3 hours from the following:		3
HCA 5093	Leadership Methods and Styles in Healthcare	
HCA 5013	Survey of Health Care Administration	3
MPH 5453	Cultural Issues in Health	3
or HLTH 5453	Cultural Issues In Health	
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
or HLTH 5683	Health Behavior Theory and Practice for Public Health	
MPH 5973	Designing Public Health Programs	3
or HLTH 5973	Designing Public Health Programs	
Select 3 hours from the following:		3
MPH 5983	Implementation and Evaluation of Public Health Programs	
or HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
Thesis		
MPH 5000	Master's Thesis	6
		3
Total Hours		**42**

Non-Thesis

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
or HLTH 5653	Foundations of Public Health Education and Promotion	
MPH 5203	Evidence-Based Approaches to Public Health	3
or REMS 5953	Statistical Methods in Education	
MPH 5323	General Epidemiology	3
or HLTH 5323	General Epidemiology	
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
Select 3 hours from the following:		3
HCA 5093	Leadership Methods and Styles in Healthcare	
HCA 5013	Survey of Health Care Administration	3
MPH 5453	Cultural Issues in Health	3
or HLTH 5453	Cultural Issues In Health	
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
or HLTH 5683	Health Behavior Theory and Practice for Public Health	
MPH 5973	Designing Public Health Programs	3
or HLTH 5973	Designing Public Health Programs	
Select 3 hours from the following:		3
MPH 5983	Implementation and Evaluation of Public Health Programs	
or HLTH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
Non-Thesis Report		
MPH 5030	Master of Public Health Practicum	3
Select 6 hours of electives		6
Total Hours		**42**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Public Health: Rural and Underserved Populations, MPH

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
or HLTH 5653	Foundations of Public Health Education and Promotion	
REMS 5953	Statistical Methods in Education	3
or MPH 5203	Evidence-Based Approaches to Public Health	
HLTH 5323	General Epidemiology	3
or MPH 5323	General Epidemiology	
HLTH 5133	Environmental Health	3
or MPH 5133	Environmental Health	
HCA 5013	Survey of Health Care Administration	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
HCA 5093	Leadership Methods and Styles in Healthcare	3
or MPH 5543	Leadership, Policy, and Ethics in Public Health	
MPH 5453	Cultural Issues in Health	3
or HLTH 5453	Cultural Issues In Health	
REMS 5013	Research Design and Methodology	3
or HDFS 5133	Research Methods in HDFS II	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
or HLTH 5683	Health Behavior Theory and Practice for Public Health	
HLTH 5973	Designing Public Health Programs	3
or MPH 5973	Designing Public Health Programs	
Select 3 hours of the following:		3
AECL 6223	Program Evaluation in Agriculture and Extension	
HLTH 5983	Implementation and Evaluation of Public Health Programs	
or MPH 5983	Implementation and Evaluation of Public Health Programs	
REMS 6373	Program Evaluation	
Hours Subtotal		**36**
Guided Electives		
HLTH 5113	Psychological Aspects of Health	
NSCI 5323	Physical Health, Nutrition, Wellness and Active Aging	
HLTH 5233	Sexuality and Health	
NSCI 5453	Nutrition and Health Disparities	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5713	Public Health Nutrition and Food Policy	
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5403	Foundations in Integrative Aging Studies	
HDFS 5411	Ethics and Aging	
HDFS 5433	Theories of Aging	
HDFS 5493	Aging and Diverse Families	
HDFS 5523	Family Theory	
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	
Thesis		
MPH 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**42**

Public Health Practicum

Total Hours: 42

Code	Title	Hours
Core Courses		
MPH 5653	Foundations of Public Health Education and Promotion	3
or HLTH 5653	Foundations of Public Health Education and Promotion	
REMS 5953	Statistical Methods in Education	3
or MPH 5203	Evidence-Based Approaches to Public Health	
HLTH 5323	General Epidemiology	3
or MPH 5323	General Epidemiology	
HLTH 5133	Environmental Health	3
or MPH 5133	Environmental Health	
HCA 5013	Survey of Health Care Administration	3
MC 5953	Strategic Health Communications Campaigns	3
or AGCM 5403	Public Relations Campaigns in Agricultural Sciences and Natural Resources	
HCA 5093	Leadership Methods and Styles in Healthcare	3
or MPH 5543	Leadership, Policy, and Ethics in Public Health	
MPH 5453	Cultural Issues in Health	3
or HLTH 5453	Cultural Issues In Health	
MPH 5683	Health Behavior Theory and Practice for Public Health	3
or HLTH 5683	Health Behavior Theory and Practice for Public Health	
HLTH 5973	Designing Public Health Programs	3
or MPH 5973	Designing Public Health Programs	
Select 3 hours of the following:		3
AECL 6223	Program Evaluation in Agriculture and Extension	
REMS 6373	Program Evaluation	
Hours Subtotal		**33**
Guided Electives		

Select 6 hours		6
HLTH 5113	Psychological Aspects of Health	
NSCI 5323	Physical Health, Nutrition, Wellness and Active Aging	
HLTH 5233	Sexuality and Health	
NSCI 5453	Nutrition and Health Disparities	
NSCI 5553	Global Nutrition and Food Security	
NSCI 5713	Public Health Nutrition and Food Policy	
HDFS 5153	Policy in Human Development and Family Science	
HDFS 5403	Foundations in Integrative Aging Studies	
HDFS 5411	Ethics and Aging	
HDFS 5433	Theories of Aging	
HDFS 5493	Aging and Diverse Families	
HDFS 5523	Family Theory	
HDFS 5583	Intimate Relationships and Sexuality across the Lifespan	
Hours Subtotal		**6**
Public Health Practicum		
MPH 5030	Master of Public Health Practicum	3
Hours Subtotal		**3**
Total Hours		**42**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Quantitative Finance, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 33

Code	Title	Hours
Required Courses		
FIN 5223	Investment Theory and Strategy	3
FIN 5633	Computational Finance	3
FIN 5653	Bond Markets	3
FIN 5763	Derivative Securities and the Management of Financial Price Risk	3
FIN 5883	Quantitative Financial Applications	3
FIN 5833	Student Managed Investment Fund	3
MATH 5473	Financial Calculus	3
Electives (Partial list)		
Select 12 hours from the following:		12
AGEC 5103	Mathematical Economics	
AGEC 5113	Applications of Mathematical Programming	
ECON 6213	Econometrics I	
ECON 6243	Econometrics II	
ECON 6323	Mathematical Economics I	
FIN 5053	Theory and Practice of Financial Management	
FIN 5343	Valuation and Financial Modeling	
FIN 5363	Energy Finance	
FIN 5550	Special Topics in Finance (Portfolio Management)	
FIN 5763	Derivative Securities and the Management of Financial Price Risk	
FIN 5773	Financial Engineering	
FIN 6053	Financial Theory and Corporate Policy	
STAT 5053	Time Series Analysis	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	
Total Hours		**33**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Recreation Management and Recreational Therapy, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Research and Inquiry		
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
Hours Subtotal		**6**
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
RMRT 5413	Organization and Administration of Recreation and Leisure Services	3
RMRT 5433	Current Issues in Recreation Management	3
RMRT 5443	Social Foundations of Recreation Management	3
Hours Subtotal		**12**
Cognate		
Select 12 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:		12
RMRT 5030	Field Problems in Recreation Management	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5403	Outdoor Recreation	
RMRT 5423	Supervision of Recreation Management People and Programs	
RMRT 5483	Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493	Recreational Therapy in Mental Health and Intellectual Disabilities	
RMRT 5553	Tourism in Recreation Settings	
RMRT 5563	Entrepreneur Recreation Management	
RMRT 5603	Outdoor Education	
RMRT 5703	Areas and Facilities in Recreation Management Services	
RMRT 5943	Grant Writing and Nonprofit Management	
And other courses as approved by the student's graduate committee.		
Hours Subtotal		**12**
Thesis		
RMRT 5000	Master's Thesis	6
Hours Subtotal		**6**
Total Hours		**36**

Non-Thesis Option

Total Hours: 36

Code	Title	Hours
Research and Inquiry		
REMS 5953	Statistical Methods in Education	3
REMS 5013	Research Design and Methodology	3
Hours Subtotal		**6**
Core Courses		
RMRT 5023	Legal Aspects of Recreation Management, Health, Physical Education, and Leisure Services	3
RMRT 5413	Organization and Administration of Recreation and Leisure Services	3
RMRT 5433	Current Issues in Recreation Management	3
RMRT 5443	Social Foundations of Recreation Management	3
Hours Subtotal		**12**
Cognate		
Select 18 hours, which may include RMRT and LEIS courses, to form a cognate appropriate to the student's goals:		18
RMRT 5030	Field Problems in Recreation Management	
RMRT 5073	Recreational Therapy and Geriatrics	
RMRT 5403	Outdoor Recreation	
RMRT 5423	Supervision of Recreation Management People and Programs	
RMRT 5483	Recreational Therapy for Persons with Physical Disabilities	
RMRT 5493	Recreational Therapy in Mental Health and Intellectual Disabilities	
RMRT 5553	Tourism in Recreation Settings	
RMRT 5563	Entrepreneur Recreation Management	
RMRT 5603	Outdoor Education	
RMRT 5703	Areas and Facilities in Recreation Management Services	
RMRT 5943	Grant Writing and Nonprofit Management	
And other courses as approved by the student's graduate committee.		
Hours Subtotal		**18**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Social Foundations of Education, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Required Courses		
SCFD 5123	History of Education	3
SCFD 5713	Educational Philosophy	3
SCFD 5873	Culture, Society and Education	3
SCFD 5883	Educational Sociology	3
Hours Subtotal		**12**
Research and Inquiry		
Select 9 hours of the following:		9
CIED 5073	Pedagogical Research	
HIST 5023	Historical Methods	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
SOC 5243	Social Research Design	
SOC 5263	Quantitative Analysis of Social Research	
SOC 5273	Qualitative Research Methods	
SOC 5283	Advanced Qualitative Sociological Research	
STAT 5043	Sample Survey Designs	
Hours Subtotal		**9**
Electives		
Select 9 hours of the following:		9
SCFD 5223	Role of Teacher in American Schools	
SCFD 5850	Directed Study	
SCFD 5923	Popular Culture and Education	
SCFD 5990	Problems and Issues in Social Foundations	
SCFD 5993	Urban Education	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5723	Gender and Curriculum	
EDLE 5813	Leadership Theory and Ethical Decision Making	
EDLE 5953	Developing Educational Organizations	
GWST 5300	Seminar in Gender and Women's Studies	
HIST 5120	Reading Seminar in American History	
HIST 5220	Research Seminar in American History	
HIST 5140	Reading Seminar in European and World History	
HIST 5240	Research Seminar in European and World History	
SOC 5063	Seminar in Social Inequality and Stratification	
SOC 5493	Seminar in Environmental Justice	
SOC 5643	Gender and Society	
SOC 5663	Seminar in Race and Ethnicity	
Hours Subtotal		**9**
Master's Thesis		
Choose 6 hours from the following:		6
SCFD 5000	Master's Report or Thesis	
SCFD 5020	Master's Final Project	
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Sociology, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 31

Code	Title	Hours
Required Coursework		
Sociological Theory		
Select 3 hours		6
SOC 5113	Classical Sociological Theory	
SOC 5123	Contemporary Sociological Theory	
Social Research Methods		
Select 6 hours		3
SOC 5243	Social Research Design	
SOC 5273	Qualitative Research Methods	
SOC 5283	Advanced Qualitative Sociological Research	
SOC 5950	Seminar in Sociology	
Statistics		
Select 3 hours		3
SOC 5263	Quantitative Analysis of Social Research	
SOC 5950	Seminar in Sociology	
Additional Sociology Courses		
Select 12 hours		12
SOC 5063	Seminar in Social Inequality and Stratification	
SOC 5643	Gender and Society	
SOC 5653	Gender and the Middle East	
SOC 5663	Seminar in Race and Ethnicity	
SOC 5463	Seminar in Environmental Sociology	
SOC 5493	Seminar in Environmental Justice	
SOC 6493	Sociology of Disaster	
SOC 5323	Seminar on Collective Behavior and Social Movements	
SOC 6653	Seminar in Social Psychology	
SOC 6753	Seminar in Deviance and Criminology	
SOC 5343	Sociology of Law and Punishment	
SOC 5583	Comparative Criminal Justice Systems	
SOC 5950	Seminar in Sociology	
Hours Subtotal		**24**
Thesis		
Select 6 hours of approved thesis coursework.		6
Hours Subtotal		**6**
Pro-Seminar		
Select 1 hour of approved pro-seminar coursework.		1
Hours Subtotal		**1**
Total Hours		**31**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Coursework		
Sociological Theory		
Select 3 hours		6
SOC 5113	Classical Sociological Theory	
SOC 5123	Contemporary Sociological Theory	
Social Research Methods		
Select 6 hours		3
SOC 5243	Social Research Design	
SOC 5273	Qualitative Research Methods	
SOC 5283	Advanced Qualitative Sociological Research	
SOC 5950	Seminar in Sociology	
Statistics		
Select 3 hours		3
SOC 5263	Quantitative Analysis of Social Research	
SOC 5950	Seminar in Sociology	
Additional Sociology Courses		
Select 16 hours		16
SOC 5063	Seminar in Social Inequality and Stratification	
SOC 5643	Gender and Society	
SOC 5653	Gender and the Middle East	
SOC 5663	Seminar in Race and Ethnicity	
SOC 5463	Seminar in Environmental Sociology	
SOC 5493	Seminar in Environmental Justice	
SOC 6493	Sociology of Disaster	
SOC 5323	Seminar on Collective Behavior and Social Movements	
SOC 6653	Seminar in Social Psychology	
SOC 6753	Seminar in Deviance and Criminology	
SOC 5343	Sociology of Law and Punishment	
SOC 5583	Comparative Criminal Justice Systems	
SOC 5950	Seminar in Sociology	
Hours Subtotal		**28**
Creative Component		
SOC 5013	Creative Component in Sociology	3
Hours Subtotal		**3**
Pro-Seminar		
Select 1 hour of approved pro-seminar coursework.		1
Hours Subtotal		**1**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Statistics, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Required Courses		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Electives		
Select 6 hours of electives. [1]		6
Hours Subtotal		**30**
Thesis		
Thesis Research		6
Hours Subtotal		**6**
Total Hours		**36**

1

Three hours need not have STAT or MATH suffix. Electives must not have significant overlap with other courses used to satisfy degree requirements. Electives without a STAT prefix require approval from the advisory committee. The following courses will NOT be approved: AGEC 5103, BAE 5513, IEM 5003, IEM 5133, PSYC 5303, PSYC 5313, REMS 5013, REMS 5953, REMS 6003, REMS 6013, STAT 5013.

Formal Report

Total Hours: 32

Code	Title	Hours
Required Courses		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Electives		
Select 6 hours of electives. [1]		6
Hours Subtotal		**30**
Formal Report		
Select 2 hours		2
Hours Subtotal		**2**
Total Hours		**32**

1

Three hours need not have STAT or MATH suffix. Electives must not have significant overlap with other courses used to satisfy degree requirements. Electives without a STAT prefix require approval from the advisory committee. The following courses will NOT be approved: AGEC 5103, BAE 5513, IEM 5003, IEM 5133, PSYC 5303, PSYC 5313, REMS 5013, REMS 5953, REMS 6003, REMS 6013, STAT 5013.

Creative Component

Total Hours: 36

Code	Title	Hours
Required Courses		
STAT 5023	Statistics for Experimenters II	3
STAT 5063	Statistical Machine Learning with R	3
STAT 5193	SAS and R Programming	3
STAT 5123	Probability Theory	3
STAT 5223	Statistical Inference	3
STAT 5303	Experimental Designs	3
STAT 5323	Theory of Linear Models I	3
STAT 5333	Theory of Linear Models II	3
Select 3 hours of electives [1]		3
Hours Subtotal		**27**
Select 9 hours of STAT or MATH electives [2]		9
Creative Component [3]		
Hours Subtotal		**9**
Total Hours		**36**

1

This elective need not have STAT or MATH suffix and must not have significant overlap with other courses used to satisfy degree requirements. Electives without a STAT prefix require approval from the advisory committee. The following courses will NOT be approved: AGEC 5103, BAE 5513, IEM 5003, IEM 5133, PSYC 5303, PSYC 5313, REMS 5013, REMS 5953, REMS 6003, REMS 6013, STAT 5013.

2

Up to 9 credit hours can be chosen from MATH 5043, MATH 5053, MATH 5073, MATH 5083, MATH 5143.

3

A satisfactory score on the MS Comprehensive Exam is necessary to satisfy this requirement. The MS Comprehensive Exam also serves as the PhD Preliminary Exam.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Curriculum and Leadership Studies, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research and Inquiry		
CIED 5073	Pedagogical Research	3
Selected Research course with advisor's approval		3
Example courses:		
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5953	Statistical Methods in Education	
REMS 5013	Research Design and Methodology	
Hours Subtotal		**6**
Program Core		
CIED 5623	Multicultural and Diversity Issues in Curriculum	3
CIED 5043	Issues in Teaching	3
Or selected course with advisor's approval		
Hours Subtotal		**6**
Area of Emphasis		
Curriculum and Leadership		
Select 12 hours from the following:		12
CIED 5043	Issues in Teaching	
CIED 5123	Curriculum in the Secondary School	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5723	Gender and Curriculum	
CIED 5730	Seminar in Education	
CIED 5823	Mindfulness, Curriculum, and Teaching	
OSU Writing Project OR other courses with Advisor's approval		
Hours Subtotal		**12**
Thesis		
CIED 5000	Master's Report or Thesis	6
Hours Subtotal		**6**
Total Hours		**36**

Creative Component Option

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research and Inquiry		
CIED 5073	Pedagogical Research	3
Selected Research course with advisor's approval		3
Example courses:		
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5953	Statistical Methods in Education	
REMS 5013	Research Design and Methodology	
Hours Subtotal		**6**
Program Core		
CIED 5623	Multicultural and Diversity Issues in Curriculum	3
CIED 5043	Issues in Teaching	3
Or selected course with advisor's approval		
Hours Subtotal		**6**
Area of Emphasis		
Curriculum and Leadership		
Select 12 hours from the following:		12
CIED 5043	Issues in Teaching	
CIED 5123	Curriculum in the Secondary School	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum	
CIED 5723	Gender and Curriculum	
CIED 5730	Seminar in Education	
CIED 5823	Mindfulness, Curriculum, and Teaching	
OSU Writing Project OR other courses with Advisor's approval		
Hours Subtotal		**12**
Electives		
Courses with Advisor's approval		6
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Gifted and Talented Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Degree Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
GTED 5063	Introduction to Gifted and Talented Education	3
GTED 5163	Counseling Techniques for Teachers of Gifted and Talented Students	3
GTED 5363	Differentiating Curriculum for Gifted Learners	3
GTED 5620	Practicum with Exceptional Learners	3
GTED 5763	Teaching Methods and Techniques for Gifted Education	3
GTED 5863	Developing Programs for the Gifted and Talented	3
GTED 5993	Identification and Behavioral Characteristics of the Gifted and Talented	3
Select 3 hours from the following:		3
CIED 5073	Pedagogical Research	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		**30**
Electives		
Select 6 hours from any discipline in consultation with your advisory committee.		6
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: K-12 Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues *	3
CIED 5813	Educational Advocacy and Leadership *	3
Hours Subtotal		**6**
Research Requirement		
Select one research course and ensure three courses found in the common or program core that are designated with an asterisk (*) are selected.		3
SCFD 5913	Introduction to Qualitative Inquiry (OR)	
REMS 5013	Research Design and Methodology (OR)	
CIED 5073	Pedagogical Research (OR)	
REMS 5953	Statistical Methods in Education	
Hours Subtotal		**3**
Program Core		
CIED 5043	Issues in Teaching *	3
Select 3 hours from the following:		3
CIED 5343	Introduction to K-12 English Language Learners	
CIED 5623	Multicultural and Diversity Issues in Curriculum *	
CIED 5663	Integrating Teaching in the Secondary School	
SMED 5183	Social Justice by the Numbers: Learning to Teach Science & Math for Understanding & Equity	
SPED 5993	Culturally Responsive Teaching in Special Education	
Hours Subtotal		**6**
Areas of Emphasis		
In consultation with an advisor, select 21 hours from the following:		21
CIED 5713	Teaching and Learning in the Secondary School	
CIED 5350	The Visual Arts in the Curriculum	
CIED 5153	Advanced Studies in Children's Literature	
CIED 5353	Literature for Children, Adolescents and Adults	
CIED 5443	Teaching Reading with Literature	
CIED 5513	Young Adult Literature	
CIED 5173	Kindergarten-Primary Curriculum	
CIED 5313	Curriculum of the Elementary School	
CIED 5123	Curriculum in the Secondary School	
CIED 5143	Language Arts in the Curriculum	
CIED 5183	Media Literacy Across the Curriculum	
CIED 5433	Reading and Writing in the Content Areas	
CIED 5463	Practicum I: Literacy Assessment and Instruction	
CIED 5473	Reading & Writing Difficulties	
CIED 5483	Literacy and Technology Across the Curriculum	
CIED 5553	Literacy Leadership and Coaching	
CIED 5733	History of Reading	
CIED 5843	First and Second Language Acquisition for Teachers	
CIED 5863	Foreign Language Instruction, Curriculum and Assessment: Grades Pk-12	
CIED 5423	Literacy Instruction in Primary Grades *	
CIED 5523	Practicum II: Advanced Literacy Interventions	
CIED 5493	Multisensory Phonics Instruction	
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions *	
SMED 5263	Assessment and Evaluation in School Mathematics *	
SMED 5270	Practicum in School Mathematics	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5283	Problem-Centered Learning in Mathematics	
SMED 5293	Teaching and Learning Mathematics in Technology *	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5943	Mathematics Leadership and Coaching	
SMED 5203	Teaching the Nature of Science Through and Inquiry Approach	
SMED 5713	Teaching and Learning Science in the Secondary School	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5243	Environmental Education in the Curriculum	
SMED 5280	Workshop in Science Education	
SMED 5313	Introduction to K-12 Engineering Education	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
CIED 5323	Teaching Social Studies in the Schools	
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities	
SPED 5743	Planning, Compliance and Current Practices	
SPED 5883	Classroom and Behavior Management	

SPED 5993	Culturally Responsive Teaching in Special Education	
CIED 5720	Education Workshop	
CIED 5730	Seminar in Education	
CIED 5373	Design and Management of the Elementary School Classroom	
CIED 5893	Reading Processes and Practices GR 1-8	
SMED 5013	Mathematics Education: Theory and Practice(Grade 1-4)	
SMED 5083	Teaching Science in the Elementary School (Grades 1-8)	
CIED 5333	Effective Classroom Management for Secondary Schools	
CIED 5363	Effective Teaching Strategies for the 6-12 Classroom	
CIED 5010	Practicum for Early Career Secondary Teachers	
CIED 5403	Teaching and Learning in the Secondary Schools: English Language Arts Methods	
CIED 5413	Teaching and Learning in the Secondary Schools: Social Studies Methods	
SMED 5153	Methods for Teaching Secondary Math	
SMED 5143	Methods for Teaching Secondary Science	
Hours Subtotal		**21**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Mathematics/Science Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Program Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research Requirement		
Select 6 hours from the following:		6
CIED 5073	Pedagogical Research	
MATH 5913	Introduction to Research in Mathematics Education	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
SCFD 5913	Introduction to Qualitative Inquiry	
Hours Subtotal		**6**
Program Core		
SMED 5750	Seminar in Mathematics Education	3
SMED 5193	Inquiry and Problem-Based Learning in Science Education	3
or SMED 5283	Inquiry Teaching and Learning in Science and Mathematics Education	
Hours Subtotal		**6**
Areas of Emphasis		
Select 12 hours		12
Hours Subtotal		**12**
Elective or Thesis		
Select 6 hours		6
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5243	Environmental Education in the Curriculum	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5263	Assessment and Evaluation in School Mathematics	
SMED 5270	Practicum in School Mathematics	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5280	Workshop in Science Education	
SMED 5283	Inquiry Teaching and Learning in Science and Mathematics Education	
SMED 5293	Teaching and Learning Mathematics in Technology	
SMED 5313	Introduction to K-12 Engineering Education	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
SMED 5613	Effective Teaching of Mathematics in the Secondary School	
SMED 5750	Seminar in Mathematics Education	
SMED 5813	Assessment in Science Education	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5943	Mathematics Leadership and Coaching	
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Reading and Literacy, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research and Inquiry		
Select 3 hours from the following:		3
SCFD 5913	Introduction to Qualitative Inquiry	
REMS 5013	Research Design and Methodology	
CIED 5073	Pedagogical Research	
Hours Subtotal		**3**
Area of Emphasis (Reading Specialist Certification Program)		
CIED 5143	Language Arts in the Curriculum	3
CIED 5153	Advanced Studies in Children's Literature	3
CIED 5423	Literacy Instruction in Primary Grades	3
CIED 5433	Reading and Writing in the Content Areas	3
CIED 5463	Practicum I: Literacy Assessment and Instruction	3
CIED 5523	Practicum II: Advanced Literacy Interventions	3
CIED 5553	Literacy Leadership and Coaching	3
Hours Subtotal		**21**
Electives or Thesis		
Select 6 hours		6
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Special Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research and Inquiry		
Select 3 hours from the following:		3
CIED 5073	Pedagogical Research	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SPSY 6253	Single Case Designs in Behavior Analytic Settings	
Hours Subtotal		**3**
Program Core		
SPED 5723	Transition Into Adulthood for Individuals with Disabilities	3
SPED 5743	Planning, Compliance and Current Practices	3
Area of Emphasis		
Select one emphasis (15 hours)		15
Behavior and Academic Interventionist		
FDEP 5493	Psychology of Learning and Behavior	
SPSY 5853	Applied Behavior Analysis	
SPSY 5873	Applied Behavior Analysis II	
SPSY 6313	Advanced Interventions for Increased Academic Achievement	
SPSY 6343	Behavioral Assessment and Consultation	
Or related coursework as deemed appropriate by student's advisor.		
Mild/Moderate Disabilities		
Select 15 hours from the following:		
CIED 5473	Reading & Writing Difficulties	
SPED 5123	Characteristics and Teaching Methods for Students with Autism Spectrum Disorders	
SPED 5623	Characteristics of Students with Mild/ Moderate Disabilities	
SPED 5673	Improving Literacy Skills of Individuals with Disabilities	
SPED 5683	Models of Instruction in the Inclusive Classroom	
SPED 5783	Assessing Students with Disabilities	
SPED 5883	Classroom and Behavior Management	
SPED 5993	Culturally Responsive Teaching in Special Education	
Hours Subtotal		**21**
Electives or Thesis		
Select up to 6 hours with Advisor approval.		6
Each student must complete either 6 hours of thesis (SPED 5000 or equivalent content course) or SPED 5150 (3 hours) and 3 hours of electives. Students must discuss their options with their advisor.		
Hours Subtotal		**6**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Teaching, Learning and Leadership: Workforce and Adult Education, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Total Hours: 36

Code	Title	Hours
Common Core		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
Hours Subtotal		**6**
Research and Inquiry Requirement		
WAED 5443	Interpreting Research in Workforce and Adult Education	3
Select three hours from the following:		3
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
SCFD 5913	Introduction to Qualitative Inquiry	
STAT 5013	Statistics for Experimenters I	
Hours Subtotal		**6**
Program Core		
WAED 5153	Curriculum Planning in Workforce and Adult Education	3
WAED 5233	Advanced Instructional Procedures in Workforce and Adult Education	3
WAED 5313	Overview of Workforce and Adult Education	3
Hours Subtotal		**9**
Areas of Emphasis		
Select 15 hours from, but not limited to, the following (students should work with advisor to select courses appropriate for emphasis in WAED teaching, administration, workforce development or engineering education):		15
EDLE 5723	Education Law	
WAED 5000	Thesis or Report	
WAED 5010	Seminar	
WAED 5013	Foundations and Characteristics of Adult Learning	
WAED 5113	Principles of Leadership in Workforce Education	
WAED 5123	Administration & Evaluation of Workforce and Adult Education	
WAED 5133	Internationalism, Globalization and Workforce Education	
WAED 5143	Organization and Administration of Adult Education	
WAED 5203	Foundations of Adult and Continuing Education	
WAED 5223	Program Planning for Workforce and Adult Educators	
WAED 5333	Administration and Supervision of Workforce Education Programs	
WAED 5340	Special Problems in Workforce and Adult Education	
WAED 5353	Instructional Strategies for Adults	
WAED 5423	Individualized Competency Based Instruction and Customized Training	
WAED 5703	Adult Learning in Diverse Settings	
WAED 5720	Workshop	
WAED 5730	Special Topics in Adult Education	
WAED 5833	Global Consulting	
WAED 5880	Internship in Workforce and Adult Education	
WAED 5910	Developing and Analyzing Teaching Content	
Hours Subtotal		**15**
Total Hours		**36**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Theatre, MA

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (p.).

Thesis Option

Total Hours: 30

Code	Title	Hours
Required Core		
TH 4953	Directing	3
TH 5113	Theatre History and Theory I	3
TH 5513	Theatre History and Theory II	3
TH 5313	Dramaturgy	3
TH 5600	Seminar in Dramatic Literature	3
One approved graduate-level seminar outside of the Department of Theatre		3
Hours Subtotal		**18**
Electives		
Select 6 hours		6
TH 5240	Topics in Advanced Acting	
TH 5400	Seminar in Theatre	
TH 5500	Individual Theatre Projects	
TH 5953	Problems in Advanced Directing	
TH 5600	Seminar in Dramatic Literature	
Graduate electives in other departments		
TH 4000-level courses with an * in the OSU Catalog.		
Hours Subtotal		**6**
Thesis		
TH 5000	Master's Thesis and Research	6
Hours Subtotal		**6**
Total Hours		**30**

Non-Thesis Option

Total Hours: 32

Code	Title	Hours
Required Core		
TH 4953	Directing	3
TH 5113	Theatre History and Theory I	3
TH 5513	Theatre History and Theory II	3
TH 5313	Dramaturgy	3
TH 5600	Seminar in Dramatic Literature	3
One approved graduate-level seminar outside of the Department of Theatre		3
Hours Subtotal		**18**
Electives		
Select 11 hours		11
TH 5240	Topics in Advanced Acting	
TH 5400	Seminar in Theatre	
TH 5500	Individual Theatre Projects	
TH 5953	Problems in Advanced Directing	
TH 5600	Seminar in Dramatic Literature	
Graduate electives in other departments		
TH 4000-level courses with an * in the OSU Catalog.		
Hours Subtotal		**11**
Creative Component		
TH 5100	Master's Creative Component and Research	3
Hours Subtotal		**3**
Total Hours		**32**

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (p. 2927). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

CENTER FOR HEALTH SCIENCES

College Administration

Johnny Stephens, PharmD—President
Jeffrey Stroup, PharmD—Provost and Vice President, Senior Associate Dean, Academic Affairs
Dennis Blankenship, DO—Dean of College of Osteopathic Medicine
Eric Polak, MBA—Vice President for Administration and Finance
Randall Davis, PhD—Associate Dean and Director for Biomedical Sciences
LeRoy Young, DO—Senior Associate Dean for Clinical Affairs
Christopher C. Thurman, DO—Associate Dean for Clinical Education and Simulation Medicine
Kent Smith, PhD—Associate Dean, Office for the Advancement of American Indians in Medicine and Science
Natasha Bray, DO—Dean, OSU College of Osteopathic Medicine, Cherokee Nation, Associate Dean of Accreditation
Jeff Hackler, JD—Associate Dean of Academic Affairs and Enrollment Management
Mousumi Som, DO—Designated Institutional Official, GME Programs
Ashley L. Adkins, MS—Assistant Vice President for Operations
Carrie Gilstrap, DO—Associate Dean, Curriculum and Academic Success, and Clinical Professor of Medical Education
Denna Wheeler—Executive Director, Center for Rural Health
Angela Bacon, ABD, MS—Assistant Dean of Student Life and Wellness

Campus Address and Phone

Address: 1111 West 17th St., Tulsa, OK 74107
Phone: 918.582.1972**,** 800.677.1972
Website: medicine.okstate.edu (https://medicine.okstate.edu)
E-mail: admissions@chs.okstate.edu

College of Osteopathic Medicine

As health care grows more sophisticated, the supply of primary care physicians will continue to be a challenge. The OSU College of Osteopathic Medicine is helping to address that challenge and to fulfill a critical need in Oklahoma, and beyond, by training physicians who are qualified to treat every member of the family and enhance the health care process by applying his or her knowledge to treat the whole person. The mission of the OSU College of Osteopathic Medicine is to educate osteopathic primary care physicians with an emphasis on serving rural and underserved Oklahoma.

The majority of graduates of the OSU College of Osteopathic Medicine practice in the primary care fields—family medicine, pediatrics, internal medicine and obstetrics/gynecology. The remaining graduates do their postdoctoral training in other specialties and subspecialties—anesthesiology, neurology, psychiatry, radiology, surgery, dermatology and oncology, to name a few. Regardless of the field they pursue, our students are trained to be excellent physicians, beginning with a strong background in general osteopathic medicine.

The college was founded in 1972 in response to a physician shortage in the small towns and rural areas of Oklahoma. The college opened its doors in 1974 and graduated its first class in 1977. In 1988, the college was merged with Oklahoma State University and confirmed its mission to prepare students to be primary care physicians with emphasis in rural medicine. In 2001, the Oklahoma legislature added another designation by creating the OSU Center for Health Sciences—the umbrella organization for the College of Osteopathic Medicine; and graduate programs in biomedical and forensic sciences, health care administration, athletic training and physician assistant program.

The OSU Center for Health Sciences is located on 16 acres along the west bank of the Arkansas River with an impressive view of downtown Tulsa. Modern buildings house conference facilities, a hospital simulation center, new anatomy lab, dedicated neuroanatomy lab, state-of-the-art research facility, expanded classroom and study space, wellness center, a medical bookstore and a forensic sciences and biomedical research facility. The OSU Medical Center, located a half-mile north of campus, is the primary teaching hospital for the college. The medical center serves Tulsa and the surrounding communities, and serves as both a teaching clinic for medical students, interns and residents, and a health care resource for residents of Tulsa and the surrounding area. The medical center is a state entity operated by the Oklahoma State University Medical Authority, with management by Saint Francis Health System. The hospital provides comprehensive and specialized health care and is staffed by licensed physicians and other health care professionals who supervise students in the care of patients. The OSU combined clinic system covers a wide variety of specialties. The clinics provide essential health care to the community.

The OSU College of Osteopathic Medicine at the Cherokee Nation is an additional teaching site located in Tahlequah, Oklahoma. The 84,000-square-foot facility includes an anatomy laboratory, clinical skills and OMM labs, standardized patient labs and a simulation center that features state-of-the-art computer programmable manikins. There are also lecture halls, classrooms, a gym, faculty offices and study carrels.

Promoting a patient-centered approach to health care, osteopathic physicians are concerned with the entire patient. The doctor of osteopathic medicine is a fully-trained and licensed physician who selectively utilizes all accepted scientific modalities to maintain and restore health. Osteopathic physicians and surgeons are licensed in every state to practice all phases of medicine, and offer their patients the added dimension of health care through osteopathic manipulation, a hands-on technique that uses palpation and manipulative procedures of the musculoskeletal system to diagnose and treat illness.

Minimum Academic Requirements

Prior to matriculation, the applicant must have an overall grade-point average of at least 3.00 (on a 4.00 scale), a pre-professional science GPA of at least 2.75, and a minimum score of 492 on the Medical College Admissions Test (MCAT). All applicants must take the MCAT within three years of the deadline for submitting the AACOMAS application for the application cycle. The last MCAT test date accepted for each application cycle is January in the year of matriculation. Under special circumstances, the College may use discretion to admit students who do not meet these minimum requirements.

At the time of entry, the applicant must have completed:

- Completion of at least three years (90 semester hours) and not less than 75 percent of the courses required for a baccalaureate degree at a regionally accredited college or university.
- Satisfactory completion of the following courses with no grade below "C" (2.0 on a 4.0 scale):
  - English, 2 semesters
  - Biology, 2 semesters (including laboratory)
  - Physics, 2 semesters

  - General Chemistry, 2 semesters
  - Organic Chemistry, 2 semesters
- At least one upper-division (3000-4000) level science course, including but not limited to:
  - Human Anatomy or Comparative Anatomy
  - Biochemistry
  - Microbiology
  - Molecular Biology
  - Histology
  - Cellular Biology
  - Embryology
  - Physiology

The annual AACOMAS application deadline is February 28. The deadline for supplemental application materials is March 30.

An on-campus interview with the Applicant Interview Committee is by invitation only. Interviews are conducted by clinical and adjunct faculty members, as well as alumni. Applicants must participate in the interview to qualify for further consideration. Interview results and other data submitted will be considered when determining which applicants have demonstrated appropriate levels of scholarship, aptitude and motivation for admission to the program. Class size is approved for 165 students (in 2022).

Selection Factors

The College considers applications for admission from all qualified candidates. The Oklahoma State University Center for Health Sciences provides equal employment and/or educational opportunity on the basis of merit and without discrimination because of age, race, ethnicity, color, religion, sex, sexual orientation, genetic information, gender, gender identity or expression, national origin, disability, protected veteran status, or other protected status in any of its policies, practices, or procedures. Preference is given to Oklahoma residents. Applicants must be U.S. citizens or permanent residents of the U.S. Non-U.S. citizens must have a permanent resident visa ("green card") at the time of application in order to be considered for admission.

College Curriculum

The four-year program emphasizes the integration of biomedical sciences with clinical systems. The curriculum includes early hands-on clinical experiences with patients, patient models, and simulations. Instructional methods are student-centered and include traditional lecture, and small group and team-based learning. Problem-solving and information retrieval skills are emphasized to produce and develop skills that support lifelong learning.

The culture of the OSU College of Osteopathic Medicine encourages students to establish an academic relationship with faculty members and community-based physicians. The curriculum emphasizes integration of biomedical with clinical and behavioral sciences to permit the full comprehension of the clinician's work and promote a holistic approach to the care of patients and their families. Students receive training in all areas of medicine, with additional emphasis on osteopathic manipulative medicine.

Incorporated within the OSU-COM curriculum is a Rural Medical Track, Tribal Medical Track, Global Medical Track and Urban and Underserved Medical Track. Each of these stresses the unique nature and characteristics of a rural practice, provides a pathway for student matriculation into a rural primary care residency, and supports residency graduates in the establishment of a practice in a rural or underserved Oklahoma location.

The first semester focuses on the foundations of biomedical and clinical sciences along with an introduction to patient care. Starting in the second semester and continuing through the end of the second year, students are introduced to a total of 11 clinical systems that systematically prepare students for addressing conditions typically seen in the primary care environment. The third and fourth years are comprised of clinical rotations, which are community-based, consisting of clerkship experiences in hospitals and clinics where students observe patient care and participate in the evaluation and treatment of patients under physician faculty supervision.

In the Clerkship Program, students are required to complete 22, four-week rotations in the core areas of family medicine, osteopathic manipulative medicine, pediatrics, internal medicine, surgery, obstetrics-gynecology, psychiatry and emergency medicine. In addition to the core rotations, students are also required to complete three rotations at affiliated teaching sites in rural communities, two of which are focused on gaining experience in a rural hospital setting. Students must also complete two primary care electives, seven general electives and one required vacation. Many rotations are completed at the OSU Medical Center in Tulsa, one of the largest osteopathic hospitals in the United States.

Furthermore, students enrolled in the Rural Medical Track Program take our mission to serve rural Oklahoma to new heights. The Rural Medical Track Program is designed to allow students to complete, whenever possible, the core rotations in rural communities. In addition to the core rotations, the Rural Medical Track students must also complete at least two sub-internships with rural residency programs, as well as two sub-specialty electives.

All medical students will be dually-enrolled in the Graduate College and transfer 30-credit hours to cross-listed courses allowing them to earn a Doctor of Osteopathic Medicine degree and M.S. degree upon graduation. Although more than half of graduates enter primary care, graduates are prepared to enter residencies in all medical specialty fields. This training period lasts a minimum of three years with several specialties requiring up to five years of postgraduate education. To see a full list of residency programs our recent graduates have entered and residency acceptance data, along with OSU-COM's pass rate on the COMLEX-USA, please visit: https://medicine.okstate.edu/com/admissions/graduates.html (https://health.okstate.edu/com/admissions/graduates.html).

Accreditation

The college is accredited by the Commission on Osteopathic College Accreditation (COCA) of the American Osteopathic Association, the recognized accrediting agency for institutions that educate osteopathic physicians. The Oklahoma State Regents for Higher Education are empowered by the Oklahoma Constitution to prescribe standards for higher education applicable to each institution in the Oklahoma State System of Higher Education.

Financial Aid

Financing a medical education should be seriously considered. The primary responsibility for meeting your educational costs rests with the student and his or her family; however, the Office of Student Financial Aid makes every attempt to assist prospective students as they navigate this process.

The Office of Student Financial Aid supports the mission of the University by enabling students and families to reduce or eliminate financial barriers that might prohibit their participation in the programs offered by OSU Center for Health Sciences. The office administers financial aid programs funded by federal, state, University and private sources in the form of Federal Stafford loan (Unsubsidized), Graduate PLUS loan, employment, as well as need- and merit-based scholarships.

Tuition and fees at the College of Osteopathic Medicine (for the 2024-2025 school year) average $28,884.00[1] per year for Oklahoma residents and $56,388.00[1] per year for out-of-state residents.

Most financial aid is renewable on an annual basis, provided there is adequate funding and the student remains eligible (enrolled in a matriculated program, in good academic standing and with continued need for need-based aid). To qualify, each student should file the Free Application for Federal Student Aid (FAFSA).

Office of Financial Aid - OSU College of Osteopathic Medicine
1111 West 17th Street
Tulsa, OK 74107-1898;

Students may apply online at www.fafsa.ed.gov/ (http://www.fafsa.gov/) (School code is G11282).

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subject to change

Graduate Education

The Center for Health Sciences offers graduate degree programs in Biomedical Sciences, Forensic Sciences, Health Care Administration, Athletic Training and Physician Assistant studies.

The Biomedical Sciences Graduate Program offers PhD, MS, DO/MS and DO/PhD degree programs. These programs provide students with a foundation in biomedical sciences that is broadly applicable to many disciplines, including anatomy, biochemistry, cell biology, microbiology, pathology, pharmacology and physiology.

The Master of Science in Biomedical Sciences offers a thesis and non-thesis option, with both programs designed to be completed in two years with a minimum of 30 credit hours (thesis) and 32 credit hours (non-thesis). The PhD program is designed to be completed in four years with a minimum of 60 credit hours. The DO/PhD program is designed to be completed in a minimum of seven years. The first two years are the basic science years of the program. The middle three years are graduate study, research and dissertation of the PhD program. The final two years are the clinical sciences years of the DO program. The DO/MS program is designed to be completed in a minimum of five years. The first year is primarily the graduate portion of the program. The last four years consist of the medical portion of the degree, with any remaining graduate work completed during the first year of medical school and subsequent summers.

The Master of Science in Forensic Sciences requires a minimum of 30 credit hours for a thesis track and 32 credit hours for a non-thesis track. For full-time students, the M.S. in Forensic Sciences may be completed in two years. Specializations designed for students from a variety of backgrounds include the areas of Forensic Biology/DNA, Forensic Chemistry/Toxicology, Forensic Investigative Sciences and Forensic Psychology. Specializations designed for practitioners with related professional experience include Arson, Explosives, Firearms and Toolmarks Investigations, and Forensic Science Administration. Working professionals may complete the M.S. degree online, usually over three to four years while maintaining full-time careers. The Master of Science in Forensic Sciences degree is designed for individuals pursuing many professional avenues, including careers in federal agencies, crime labs, investigative agencies, or research institutions.

The Master of Science in Health Care Administration consists of 32 total hours with a creative component or thesis including six hours of general graduate level electives. The program has an option in healthcare leadership and entrepreneurship or an option in administration. The curriculum provides exposure to management concepts, processes and techniques associated with administration and entrepreneurship functions in a variety of health care organizations. This degree is ideal for those individuals working in health care who wish to move into management or executive positions; however, healthcare experience is not required. This degree offers on-site courses at OSU-Stillwater and OSU-Tulsa as well as distance learning opportunities. This degree can be completed in-class or fully online. The DO/MS program is designed to be completed in five years. The first year is the graduate portion of the program and the last four years consist of the medical portion of the degree.

The Doctorate in Health Care Administration (DHA) consists of 62 total credit hours. This is a doctoral program, and as such, no thesis or research is required. The curriculum provides exposure to management concepts, processes and techniques associated with administration and entrepreneurship functions in a variety of health care organizations. This degree is ideal for those individuals working in health care who wish to move into management or executive positions; however, health care experience is not required. This degree is offered entirely online, and the majority of courses are asynchronous. Those who have completed the MHA at OSU or a similar degree may be eligible to count up to 30 of their credit hours towards the program. Transcripts are evaluated after admission and on a case-by-case basis.

The DO/MBA is an accelerated program that allows DO students to gain their MBA through the Spears School of Business in a single year. Six hours of elective credit can be shared from the DO coursework or business electives of the student's choice. The DO/MPH is an accelerated program that allows DO students to gain their M.P.H. in one calendar year, by allowing DO coursework to serve as elective coursework for the MPH degree. This 42-hour program captures 27 hours of the MPH's core coursework in the fall and spring semesters with six elective hours taken in the summer.

The Master of Athletic Training Program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Once accepted into the program, students are assigned to a Board of Certification (BOC) Certified Athletic Trainer (AT) where they are responsible to provide for the overall health care of patients over the course of their respective seasons or occupation. Clinical instruction of students is achieved through direct supervision by health care providers. The curriculum is based in the human sciences with anatomy, physiology, biomechanics, pathology, pharmacology, nutrition and psychology providing the theoretical foundation of student inquiry. Students learn how to apply these theoretical concepts while in the clinical setting learning under licensed physicians, athletic trainers, physical therapists and other allied health care professionals. This balance of theory and practical application prepares students to sit for the Board of Certification examination where upon successful completion, may earn the credentials ATC. Additional information about these programs can be found at:

https://medicine.okstate.edu/athletic-training/index.html (https://medicine.okstate.edu/athletic-training/).

The on-campus Physician Assistant Program recruits, educates and mentors a diverse group of students to increase competent and compassionate health care with an emphasis on increasing access to healthcare in rural and medically underserved Oklahoma. The Program places an importance on fostering collegial relationships among students within the Physician Assistant, Osteopathic Medicine and Athletic Training disciplines to provide professional, flexible, team-based, health care. The Master of Science in Physician Assistant Studies is designed for students to be eligible for certification as a Physician Assistant. The PA program has a directed curriculum of 124 hours. All students are required to be enrolled full-time. Students will spend 13 months in the didactic phase of education where they will receive traditional lectures as well as many hands-on experiences in laboratory and simulation settings. The second phase of training includes 15 months of clinical rotations. Students are required to have experiences in family medicine, internal medicine, emergency medicine, OBGYN, pediatrics, psychiatry, and surgery. Students will also have a minimum of two (2) rotations in a rural location. For additional information regarding admissions requirements please visit https://medicine.okstate.edu/pa/index.html (https://medicine.okstate.edu/pa/).

Honor and Service Organizations

The College emphasizes community service, and many students volunteer their time in giving school and athletic physicals, visiting nursing homes, working with school children and working at College-sponsored health fairs or the annual Osteopathic Scrub Run. Listed below are official student organizations.

American College of Osteopathic Emergency Physicians (ACOEP)
American College of Osteopathic Pediatricians (ACOP)
American College of Osteopathic Surgeons-Medical Student Section (ACOS-MSS)
American Indians in Medicine and Science (AIMS)
American Medical Student Association (AMSA)
American Medical Women's Association (AMWA)
American Muslim Medical Student Association (AMMSA)
American Osteopathic College of Physical Medicine and Rehabilitation (AOCPMR)
Anesthesiology Student Interest Group (ASIG)
Asian Pacific American Medical Student Association (APMSA)
Association of Native American Medical Students (ANAMS)
Biomedical Sciences Graduate Student Association (BSGSA)
Business & Leadership in Medical Practice (BLiMP)
Christian Medical Association (CMA)
Dermatology Interest Group (DIGA)
Forensic Science Organization (FSO)
Global Medicine Club (GMC)
Gold Humanism Honor Society (GHHS)
International Student Ministries (ISM)
Latino Medical Student Association (LMSA)
Medical Ethics Using Secular Humanism (MESH)
Medical Interdisciplinary Specialty Club (MISC)
Medical Students for Choice (MSC)
National Marrow Donation Program Campus Chapter (NMDP)
Native American Students in Osteopathic Medicine (NASOM)
Oklahoma Osteopathic Obstetrics and Gynecology Student Association (OOOGSA)
Pediatrics Club
Physician Assistant Student Association
Sexuality and Gender Alliance
Sigma Sigma Phi (SSP)—honor society
Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS)
Sports Medicine Club
Student American Academy of Osteopathy (SAAO)
Student American Osteopathic Academy of Orthopedics (SAOAO)
Student Association of Military Osteopathic Physicians & Surgeons (SAMOPS)
Student Association of the American College of Osteopathic Family Physicians (SAACOFP)
Student American Osteopathic Academy of Sports Medicine (SAOASM)
Student Government Association (SGA)
Student Interest Group in Neurology (SIGN)
Student National Medical Association (SNMA)
Student Osteopathic Association of Radiology (SOAR)
Student Osteopathic Internal Medicine Association (SOIMA)
Student Osteopathic Medical Association (SOMA)
Student Osteopathic Psychiatry Association (SOPA)
Student Osteopathic Rural Medicine Club (StORM)
Student PAs in Rural Communities (SPARC)
Student Political Action Committee
Wilderness Medicine Club (WMS)

Faculty

Center for Health Sciences

President of the Center for Health Sciences—Johnny Stephens, PharmD
Dean of the College of Osteopathic Medicine—Dennis Blankenship, DO
Provost of the Center for Health Sciences and Senior Associate Dean of Operations—Jeffrey S. Stroup, PharmD

Biomedical Sciences and Graduate Studies

Randall Davis, PhD—Associate Dean and Director, Biomedical Sciences

Anatomy and Cell Biology

Nedra Wilson, PhD—Associate Professor and Chair
Professors—Holly Ballard, PhD; Kent Smith, PhD
Clinical Assistant Professor—Ian D. Browne, PhD
Associate Professors—Eric Snively, PhD; Dolores Vazquez Sanroman, PhD; Anne Weil, PhD
Assistant Professors—Daniel Barta, PhD; Vikram Gujar, PhD; Zachary Klukkert, PhD

Athletic Training

Jennifer L. Volberding, PhD—Professor and Chair
Professor—Matthew O'Brien, PhD; Aric Warren, PhD

Biochemistry and Microbiology

Gerwald A. Kohler, PhD—Professor and Chair
Professors—Rashmi Kaul, PhD
Assistant Professors—Subhas Das, PhD; I-Hsiu (George) Huang, PhD; Crystal Nicole Johnson, PhD
Clinical Assistant Professors—Malabika Maulik
Professors Emeritus—Martin W. Banschbach, PhD; Frank Champlain, PhD; Charles G. Sanny, PhD

Emergency Medicine

Aaron Lane, DO—Chair and Clinical Professor
Clinical Professor—Dennis Blankenship, DO-Dean, College of Osteopathic Medicine; Michael Cannon, DO; Gavin Gardner, DO; David Gearhart, DO; Kelly A. Murray, PharmD
Clinical Associate Professors—Bobby Abernathy, DO; Tyson Bryant, DO; Linden Cowley, DO; Anastasia Fisher, DO; James Herrington, DO
Clinical Assistant Professor and Section Chief - Jason Moore, DO
Clinical Assistant Professors—Kenneth Argo, DO; Mary Asal, MD; Yakiji Bailey, DO; Joshua Baker, DO; Michelle Bates, DO; David Behm, DO; William Bickell, DO; Jennifer Briggs, DO; Jamin Brown, DO; John Carlson, DO; Cass Cherry, DO; Levi Duetham, DO; Tyler G. Evilsizer, DO; Gary Fennema, DO; Steven Gearhart, DO; Shane Hnatusko, DO; Johnathon Lowe, DO; Rebecca Massey, DO; Curtis Mayz, MD; Mary K. Moore, DO; Jonathan Peaster, DO; Roy Reed, DO; Jonathan D. Robins, DO; William T Rockwell, DO; Brianne Roepke, DO; Sarah Shelton, MD; Matthew Sims, DO; Matthew E. Stiger, DO

Family Medicine

Lora D. Cotton, DO—Professor, Director and Chair
Steffen Carey, DO—Clinical Associate Professor, Vice Chair and Director
Professor—Sarah Hall, DO; Regina Lewis, DO
Clinical Associate Professors—Amanda Carey, DO; Crystal David, PharmD; Chelsey D. Griffin, DO; Erin Kratz, DO
Clinical Assistant Professors—Kristin Browning, DO; Thomas Dewey, DO; Matt Fowler, DO; John Miller, DO; Sherrita Polk, DO; Marinn Rank, DO; Rachel Ray, DO; Glennda Tiller, DO

Forensic Sciences

Jason Beaman, DO—Chair, Clinical Associate Professor
Professor and Director—Jarrad Wagner, PhD
Clinical Assistant Professor—Jun Fu, PhD; Matthew Green, PhD
Assistant Professor and Director—John J. Frucci, EdD

Health Care Administration

Bavette Miller, PhD, MHA—Chair and Assistant Professor
Clinical Professor—Zack Varughese, PhD
Clinical Assistant Professor—Ashley Keener, PhD
Adjunct Professors—Andrew Hill, JD; Barrett Hunter, JD

Internal Medicine

Damon L. Baker, DO—Professor, Chair and Chief Medical Officer for OSUMC
Professor/DIO—Mousumi Som, DO;
Professor—Katherine Cook, DO
Clinical Professor—Jay Johnson, DO
Associate Professor—Justin Chronister, DO, John Carabello, DO; Arash Karnama. DO; Steve Kim, DO; Daniel Wildes, DO; William Woods, DO; Shane Yamane, DO
Clinical Assistant Professors—Bradley Anderson, DO; Amanda Bozell, PharmD; Bryan Bozell, PharmD; Kryston Boyer, DO; Rachel Cobbs, DO; Jennifer Cox, DO; Andrew Hale, DO; Alessandra Gearhart, MD; Thomas Palmer, DO; Kristina Smith, DO

Medical Education

Nicole Farrar, DO—Clinical Assistant Professor and Chair
Professor—Tony Alfrey, DO; Shawna Segraves Duncan, DO
Clinical Professor and Director—Laurie Clark, DO
Clinical Professor and Associate Dean—Carrie Gilstrap, DO
Clinical Associate Professor—Tamar Baruch-Finkel, DO; Stacy Chronister, DO; Eric Harp, DO; Kelly Rudd, DO
Clinical Assistant Professors—Leah Bailey, DO; Amanda Cain, DO; Zachary Fowler, DO; Janel Johnson, DO; Jenny Lessley, DO; John Vogel, DO

Obstetrics and Gynecology

Erin E. Brown, DO—Clinical Associate Professor and Chair
Clinical Professor—William Po, MD; Katherine Moxley, MD
Clinical Associate Professor—Carlos M. Guevera, DO
Clinical Assistant Professors—Sarah Bradley, DO; Michelle Brotherton, MD; Justin Parks, DO; Lauren D. Thomas, DO

Osteopathic Manipulative Medicine

Jennifer Wilson, DO—Associate Professor and Chair
Julie Dionne, DO—Clinical Assistant and Vice Chair
Clinical Professor/Executive Director—Mark Thai, DO
Clinical Associate Professor—Leslie Ching, DO
Clinical Assistant Professors—Kim Barron, DO; David Cook, DO; Cameron Henderson, DO; Darci Coffman, DO; Janell Largent, DO; Philip Ridgway, DO; Courtney Thompson, DO

Pathology

Anthony Alfrey, MD—Associate Professor and Chair
Clinical Associate Professor—Eric Harp, DO

Pediatrics

Amanda Foster, DO—Clinical Professor and Chair
Laura Bode, DO—Clinical Associate Professor and Vice Chair
Clinical Professor—Travis Campbell, DO; Christine Clary, DO; Colony S. Fugate, DO; Heather Rector, DO
Clinical Associate Professors—Christel Dixon, DO; Binh Phung, DO
Clinical Assistant Professors—Baylee Arreola, DO; Terri Reed, DO, Philip Tolentino, DO

Pharmacology and Physiology

David R. Wallace, PhD—Chair and Professor
Professors—Craig Stevens, PhD; W. Kyle Simmons, PhD
Clinical Professor—Hugo Arias, PhD
Clinical Associate Professors—Alexis Jones, PhD; Dusti Sloan, PhD
Clinical Assistant Professor—Sheri Core, PhD;
Assistant Professor—Bart Ford, PhD; Swarup Mitra, PhD

Physician Assistant

Amy Harrison, MHS, PA-C—Director, PA Program and Clinical Assistant Professor
Ashley McCrary, MPAS, PA-C—Clinical Assistant Professor and Director
Clinical Assistant Professors—Courtney Abernathy, MMSc, PA-C; Jennifer Stauffer, MHS, PA-C; Rebecca Stephen, MHS, PA-C

Psychiatry and Behavioral Sciences

Sara Coffey, DO—Clinical Associate Professor and Chair
Professor and CIRCA Director—Jennifer Hays Grudo, PhD
Professor—Vivian Stevens, PhD
Clinical Professor—Aaron Pierce, DO
Clinical Assistant Professor and Director—Brian Goetsch, PsyD

Clinical Associate Professor—Swapna Deshpande, MD; Alicia Ford, PhD; Jeffrey Grantham, MD; Samuel Martin, MD; Anna Mazur, PhD; Matt Vassar, PhD
Clinical Assistant Professors—Trevor Anderson, MD; Joshua Day, DO; Kelly J. Dunn, MD; Reagan Gill, DO; Amy Gordon, PA-C; Jennifer Hale, PhD; Micah Hartwell, PhD; Tvli Jacob, PhD; Desiree Lyon, MD; Kaelyn Lu, DO; Heath Mueller, MD; Sara Rich, PhD; Osekpamen Wickliffe, MD; Rachel Wirginis, DO
Clinical Director—Christina Brent, MA, LPC
Director—Lana Beasley, PhD

Rural Health

Denna Wheeler, PhD—Chair and Clinical Professor
Professor and Executive Director—Julie M. Croff, PhD, MPH;
Clinical Associate Professor—Wenjie Sun, PhD
Clinical Assistant Professor—Chao Li, PhD

Surgery

Michael Thomas, MD—Clinical Professor and Chair
Brian C. Diener, DO—Professor and Vice Chair
Clinical Professor—Laurie Duckett, DO; Brent Norris, DO; Hal H. Robbins, DO
Clinical Associate Professor—Adam Bradley, DO
Assistant Professors—Clint Basener, DO; Trevor Bright, DO; Garrett Decker, DO; Chad Hanson, DO; Bryan Hawkins, DO; Katie Mettler, DO; Aaron Relic; DO; Wesley Stotler, DO; Brad White, DO

COLLEGE OF PROFESSIONAL STUDIES

College Administration

Jeanette Mendez, PhD—Provost and Senior Vice President for Academic Affairs
Craig Freeman, JD—Vice Provost and Dean
Gina Noble, MS—Director, College of Professional Studies
Zach Litwack—Filmaker in Residence and Director, Entertainment Media
Beverly Morris, MS—Director of Academic Advising

Campus Address and Phone

Address: 700 N. Greenwood Ave., Tulsa, OK 74106-0702
Phone: 918-594-8271
Website: https://tulsa.okstate.edu/cps (https://tulsa.okstate.edu/cps/)

College Description

The OSU College of Professional Studies, housed at OSU-Tulsa, is designed to address the workforce needs of local industries and agencies in Tulsa with a special emphasis on working adults with some college credit but no degree.

The College of Professional Studies offers flexible bachelor's degree programs to help working adults complete a bachelor's degree that adds value to their current career. The Bachelor of Professional Studies is adaptable, with a flexible credit for prior learning, transfer credit and military credits.

From an employer's perspective, these degree programs are a new form of workforce development, providing a clear pathway to overcome the college degree barrier and enable employees to advance within their organization. Curricula are designed to meet the needs of students and the companies who employ them. Tulsa-area employers who have partnered with OSU-Tulsa on these degree programs include the Tulsa Police Department and TTCU Federal Credit Union.

Academic Programs

The Bachelor of Professional Studies in Organizational Leadership (p. 3328) is a practical, comprehensive degree option for professionals seeking to advance in their current career by earning a bachelor's degree. In many companies and organizations, advancement opportunities are tied to educational attainment. The Bachelor of Professional Studies in Organizational Leadership is designed to help earn a raise, get a promotion, or meet career goals.

The Bachelor of Professional Studies in Public Safety (p. 3329) is a practical, comprehensive degree option for public safety professionals. Students will gain the knowledge and skills to take on a variety of roles in the public safety sector. The coursework emphasizes essential human skills to successfully work in public safety, including cultural awareness, conflict resolution and effective communication.

The Bachelor of Professional Studies in Health Care Administration (https://tulsa.okstate.edu/undergraduate-academics/healthcareadministration.html) equips a student with the knowledge and skills to develop a career in leading health care organizations such as hospitals, physician offices, care facilities and other health care organizations. Students will learn the aspects of leadership and organizational development to prepare them for service in both small and large healthcare environments.

The Bachelor of Professional Studies in Entertainment Media (https://tulsa.okstate.edu/undergraduate-academics/entertainment-media.html) offers a comprehensive understanding of the entertainment industry. This degree is ideal for those seeking to build or advance careers in filmmaking, television production, digital storytelling, public relations, advertising, music production, and brand management. Students will learn valuable skills from a curriculum that keeps pace with the latest trends and best practices in this ever evolving and rapidly expanding landscape.

Transfer Student Success Center

Students who complete degrees in the College of Professional Studies often start their coursework elsewhere and transfer credits to OSU-Tulsa to complete their degree. Academic advisors play an important role in helping prospective students understand how their previous coursework will transfer to meet degree requirements. Students can meet with an advisor in the Transfer Student Success Center before they apply and are admitted. After admission to OSU, students will be assigned an advisor who will help them navigate the enrollment process throughout their academic career. Professional academic advisors are invested in the student's success and help students to develop an academic plan to complete their educational goals with their other commitments in mind. In addition to helping students with enrollment and educational goals, advisors also guide and encourage students and connect them to various campus resources.

Undergraduate Programs

- Entertainment Media, BPS (p. 3325)
- Health Care Administration, BPS (p. 3327)
- Organizational Leadership, BPS (p. 3328)
- Public Safety, BPS (p. 3329)

Graduate Programs

- Environmental Science: Environmental Management Professional Science Masters, PSM (p. 3215)

Entertainment Media, BPS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.0
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 Hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include on Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
CPS 3013	Inclusive Leadership	3
CPS 3513	Experiential Learning & Civic Engagement	3
CPS 4013	Case Study in Organizational Leadership	3
Hours Subtotal		**10**
Major Requirements		
24 credit hours focusing on an occupational specialization to achieve career goals. Upper or lower division courses includes Military Training from the Joint Service Transcript, courses needed for an Associate's Degree, transfer work from previous study gathered around the same subject area, credit for prior learning, additional coursework to complete specific OSU minors or meet prerequisite courses, internship or other credit approved by your advisor to meet career goals.		24
Major Concentration		
CPS 4213	Data Driven Decision Making	3
ENTM 4123	Entertainment Media Law	3
ENTM 3063	Storytelling Across Screens	3
ENTM 3113	Graphic Design for Entertainment Media	3
ENTM 4223	Ethics and Professionalism in the Entertainment Industry	3
ENTM 3443	Social Media for the Entertainment Industry	3
ENTM 4443	Media Writing for the Entertainment Industry	3
ENTM 3043	The World of Entertainment Media	3
ENTM 4743	Entertainment Media Capstone	3
Select 3 hours from the following:		3
ENGL 3483	Screenwriting	
ENGL 4053	Film Directing	
AMST 3513	Film And American Society (H)	
ENGL 3263	Film & TV Criticism	
ENGL 3353	Film and Literature	
ENGL 3433	Introduction to Television Studies (H)	
ENGL 3440	Studies in Film Genre	
ENGL 3453	History of American Film (H)	
ENGL 3463	History of International Film (GH)	
ENGL 3473	Race, Gender, and Ethnicity in American Film (D)	
ENGL 3503	Television and American Society (DH)	
ENGL 4263	Moving Image Aesthetics (H)	
ENGL 4350	Contemporary International Cinema	
ENGL 4450	Culture and the Moving Image	
MMJ 3153	Fundamentals of Video and Studio Production	
Any ENTM, CPS or other course approved by advisor		
Hours Subtotal		**54**
Electives		16
Select 16 hours to complete total required for the degree		
Hours Subtotal		**16**
Total Hours		**120**

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as

these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2031.

Health Care Administration, BPS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.0
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Culture (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Courses designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F)		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first-year seminar course)	1
CPS 3013	Inclusive Leadership	3
CPS 3513	Experiential Learning & Civic Engagement	3
CPS 4013	Organizational Leadership	3
Hours Subtotal		**10**
Major Requirements		
24 hours credit focusing on an occupational specialization to achieve career goals. Upper or lower division courses includes military training from the Joint Service Transcript, courses needed for an Associate's Degree, transfer work from previous study gathered around the same subject area, credit for prior learning, additional course work to complete specific OSU minors or meet prerequisite courses, internship or other credit approved by your advisor to meet career goals.		24
HCA 4013	Survey of Health Care Administration	3
HCA 4123	Survey of Research and Evaluation in Health Care	3
HCA 4223	Ethics in Healthcare	3
HCA 4263	Patient Safety and Quality Improvement in Health Care	3
6 hours from:		6
HCA 4010	Special Topics in Health Care Administration	
HCA 4083	The Financial Structure of Health Care Organizations	
HCA 4103	Introduction to Global Health	
HCA 4133	Health Care Informatics	
HLTH 3113	Health Issues in Diverse Populations (D)	3
ORGL 3613	Developing Early-Career Leadership Skills	3
6 hours from:		6
ORGL 3113	Effective Leadership Communication Skills	
ORGL 4513	Leadership & Organizational Change	
HLTH 3010	Health Workshop	
BADM 3113	Practical Business and Interpersonal Skills	
MGMT 3013	Fundamentals of Management (S)	
MGMT 4083	Corporate and Social Responsibility	
MGMT 4213	The Fair Workplace (D)	
MGMT 4533	Leadership Dynamics	
MGMT 4713	Negotiation Essentials	
Hours Subtotal		**54**
Electives		
Select 16 hours to complete required total for degree.		16
Total Hours		**120**

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Organizational Leadership, BPS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.0
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
Any course designated (S)		3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar	1
CPS 3013	Inclusive Leadership	3
CPS 3513	Experiential Learning & Civic Engagement	3
CPS 4013	Case Study in Organizational Leadership	3
Hours Subtotal		**10**
Major Requirements		
Select 24 additional hours focusing on an occupational specialization to achieve career goals.		24
Major Concentration		
ORGL 3113	Effective Leadership Communication Skills	3
ORGL 3613	Developing Early-Career Leadership Skills	3
ORGL 4513	Leadership & Organizational Change	3
PHIL 3803	Ethics, Society, and Business (H)	3
SPCH 4763	Organizational Communication	3
CPSY 4443	Cultural Diversity in Professional Life (D)	3
EPSY 3063	Critical Thinking, Problem Solving, and Creative Processes	3
CPS 4213	Data Driven Decision Making	3
6 hours from:		6
ENGL 3323	Technical Writing	
SPCH 3723	Business and Professional Communication	
ORGL 4010	Special Topics In Organizational Leadership	
CPS 3010	Special Topics in Professional Studies	
CPS 3250	Credit for Prior Learning	
CPS 4990	Internship in Professional Studies	
Other courses in CPS or ORGL or as approved by your advisor.		
Hours Subtotal		**54**
Electives		
Select 16 hours to complete required total for degree.		16
Hours Subtotal		
Total Hours		**120**

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

Public Safety, BPS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (p. 1006).

Minimum Overall Grade Point Average: 2.0
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (p. 1007)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Quantitative Thought & Logical Reasoning (Q)		
3 hours of MATH or STAT designated "Q"		3
Understanding Humanities-Human Heritage & Cultures (H)		
Courses designated (H)		6
Reasoning in the Natural Sciences (N)		
Must include one Laboratory Science (L) course		
Courses designated (N) with one (L)		7
Exploring Society & Human Behavior (S)		
PSYC 1113	Introductory Psychology (S)	3
Diversity (D)		
Courses designated (D)		3
Global Cultural Competency (G)		
Courses designated (G)		3
Additional General Education		
Additional general education credit hours (at least 3 hours) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 3 hours of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		3
Hours Subtotal		**40**
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
CPS 3013	Inclusive Leadership	3
CPS 3513	Experiential Learning & Civic Engagement	3
CPS 4013	Case Study in Organizational Leadership	3
Hours Subtotal		**10**
Major Requirements		
Occupational Specialization (Some hours from a four-year institution may be required)		
Select 24 hours credit focusing on an occupational specialization to achieve career goals. Upper- or lower-division courses include military training from the Joint Service Transcript, courses needed for an Associate's Degree, transfer work from previous study gathered around the same subject area, credit for prior learning, additional coursework to complete specific OSU minors or meet prerequisite courses, internship or other credit approved by your advisor to meet career goals.		24
Major Concentration		
SOC 3133	Racial and Ethnic Relations (DS)	3
SOC 4383	Social Stratification (S)	3
CPSY 4443	Cultural Diversity in Professional Life (D)	3
SPCH 4753	Intercultural Communication (G)	3
Select 3 hours from the following:		3
ORGL 3613	Developing Early-Career Leadership Skills	
BADM 3113	Practical Business and Interpersonal Skills	
Select 3 hours from the following:		3
ORGL 3113	Effective Leadership Communication Skills	
ENGL 3323	Technical Writing	
Select 3 hours from the following:		3
BCOM 3223	Oral Communication	
SPCH 3723	Business and Professional Communication	
Select 9 hours from the following:		9
ORGL 4513	Leadership & Organizational Change	
CPSY 3023	Mental Health in Schools and the Community	
SOC 4333	Criminology (S)	
SOC 3523	Juvenile Delinquency (DS)	
POLS 3893	Terrorism & Counterterrorism	
HLTH 3113	Health Issues in Diverse Populations (D)	
HDFS 4473	Policy, Law and Advocacy	
HDFS 4793	The Family: A World Perspective (GS)	
MGMT 4713	Negotiation Essentials	
Other courses in CPS, CPSY, HDFS, POLS, PSYC, or SOC as approved by your advisor		
Hours Subtotal		**54**
Electives		
Select 16 hours to complete required total for degree.		16
Hours Subtotal		
Total Hours		**120**

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2031.

COLLEGE VETERINARY MEDICINE

College Administration

Jerry W. Ritchey, DVM, PhD, DACVP—Professor and Interim Dean
Jennifer Rudd, DVM, PhD, DACVM—Interim Associate Dean Academic and Student Affairs
Jerry Malayer, PhD—Sr. Associate Dean for Research and Graduate Education
Martin Furr, DVM, PhD, MA Ed, DACVIM—Assistant Dean for Professional Programs

Campus Address and Phone

Address: 205 McElroy Hall, Stillwater, OK 74078
Phone: 405.744.6648
Website: www.vetmed.okstate.edu (https://vetmed.okstate.edu/)

College of Veterinary Medicine

The College of Veterinary Medicine (CVM) is the premier provider of animal care in the state of Oklahoma and for the region. The CVM provides quality educational opportunities to prepare our graduates for varied careers within the veterinary profession. The veterinary medical profession is rewarding, exciting, and one that touches the environment as well as the lives of humans and animals alike. The career options available to graduates with a Doctor of Veterinary Medicine (DVM) degree are as varied as the people who make veterinary medicine their life-long commitment. The College of Veterinary Medicine at Oklahoma State University offers a program designed to prepare new graduates for a variety of biomedical careers including private practice, post-DVM clinical training, research, industry, military, and government.

Mission: Innovation in animal and human health.
Vision: To be innovative world leaders in healthcare, research, and professional education.

Core Values:

- Communication: Understanding the importance of good communication for the proper functioning of the team and advancing our common goals.
- Integrity: We will demonstrate at all times, and expect of our colleagues, the highest standards of personal integrity.
- Accountability: We will be accountable for our own actions, work, and words
- Teamwork: Understanding that a team is stronger than the sum of its parts, and that we perform better as a team.
- Leadership: Recognizing that we can all be leaders.

Accreditation

The College is fully accredited by the Council on Education of the American Veterinary Medical Association. Accreditation is based on an assessment of 11 essential factors: the college's organization, its finances, facilities and equipment, clinical resources, library and learning resources, enrollment, admissions, faculty, curriculum, continuing and post-graduate education, and research.

High School Preparation

Preparation for a career in veterinary medicine includes understanding the profession. Volunteering or working with a veterinarian is essential. Students should develop emotional maturity and become aware of how medical decisions include patient, client, and financial issues. Professionalism and ethics are fundamental for veterinarians. Although the OSU DVM Program does not use an applicant's high school information to determine eligibility, K-12 students are strongly encouraged to take advanced placement math and science classes to prepare for more difficult college level coursework.

Admission and Application Requirements

Earning a DVM degree requires dedication and hard work, but the rewards are returned for a lifetime. In general, students must complete three to four years of pre-veterinary undergraduate coursework followed by four years of a professional veterinary medical program.

Students can select any accredited college/university to complete their pre-veterinary coursework. Choosing an undergraduate major related to the student's interest in science and animals is advised. The College requires all applicants to be within 1 year of completing specific required courses to be eligible for application. Other factors can contribute to an applicant's eligibility to the Oklahoma State University DVM Program, so students are encouraged to review all eligibility requirements.

Early Admission Program

Students pursuing careers in the health sciences often make their career decision prior to undergraduate enrollment. The goal of the Early Admission Program is to aid pre-veterinary students with strong academic ability and guide them in their pursuit of a veterinary medical career. The Early Admission Program strives to provide direction, mentorship, and provisional admission for students with superior academic achievement and interpersonal skills that are well-suited to the missions of the veterinary profession. The application opens August 1st to freshman enrolled in the fall in an Oklahoma Institution which confers bachelor's degrees. Eligible applicants must have recently graduated high school by the end of the spring semester prior to August 1st.

Scholarships

The College has a variety of scholarships available to currently enrolled veterinary medical students. The scholarship application portal opens at the end of the fall semester.

Selection Factors

The Admissions Committee seeks to admit students with excellent records of academic achievement, in addition to backgrounds that help predict potential success in a variety of veterinary medical careers. Because the veterinary medical profession is constantly changing, the faculty supports the concept of achieving diversity in each entering class. The College of Veterinary Medicine typically admits 106 students annually of which 69 are Oklahoma residents and 37 are out-of-state.

In selecting applicants for admission, the Admissions Committee will consider both quantitative (grade point averages) and qualitative factors (veterinary experience, background, personal statement, and letters of recommendation).

The CVM requires a minimum of three letters of recommendation, one of which must come from a veterinarian. Strong applications will include

letters of recommendation from individuals who have had recent working or mentorship experiences with the applicant.

An out-of-state applicant's qualitative score is based on their application materials evaluated by members of the Admissions Committee. An in-state applicant's qualitative score is also based on their application materials in addition to a personal interview conducted by members of the Admissions Committee. Interviews are administered to in-state applicants by invitation only and not automatically granted. Personal interviews are not available for out-of-state applicants.

College Curriculum

The Oklahoma State University College of Veterinary Medicine offers a rigorous, hands-on curriculum designed to prepare students for the wide-ranging and evolving demands of the veterinary profession. Spanning four years, the program integrates foundational biomedical sciences with clinical training, emphasizing all common domestic species, especially companion, equine, and food animal medicine. From day one, students are immersed in real-world learning experiences through state-of-the-art facilities, clinical skills labs, and extensive exposure to primary care, specialty services, and rural veterinary practice. The curriculum also fosters critical thinking, ethical decision-making, and professional development to equip graduates for careers in private practice, public health, research, industry, and beyond. Through its comprehensive approach and commitment to excellence, the college ensures that graduates are not only clinically proficient but also compassionate, collaborative, and ready to serve both animals and society.

Graduate Program

Comparative Biomedical Sciences

Jerry R. Malayer, PhD—Professor and Senior Associate Dean for Research and Graduate Education

The comparative biomedical sciences (CBSC) graduate program is a multidisciplinary program intended to provide students with a broad base of research areas to address individual student interests. The program is administered within the College of Veterinary Medicine but may involve faculty from other colleges. Programs of research and study leading to the degrees of Master of Science and Doctor of Philosophy are available within the broad areas of focus: infectious diseases, pathobiology, and physiological sciences. The program is designed to prepare individuals for careers in teaching and research, and specialization is possible within each area dependent upon student and faculty interests and available funding.

Current areas of research focus include molecular, cell and developmental biology, clinical sciences (including laser applications and oncology); infectious and parasitic diseases (including vector-borne diseases, bacterial and viral diseases in wild and domestic animals); pathobiology; and toxicology. Faculty and their specific areas of interest are available through the graduate coordinator (cbsc@okstate.edu (vbsc@okstate.edu)) or online at https://vetmed.okstate.edu/students/comparative-biomedical-sciences/index.html (https://vetmed.okstate.edu/students/comparative-biomedical-sciences/).

Prerequisites

Candidates for admission must possess a bachelor's degree or equivalent, with a background in biological or physical sciences. Although there are no absolute performance level requirements, applicants with GPAs of 3.0 (out of 4.0) or greater, will receive the strongest consideration.

The Master of Science Degree

The MS may be earned with 30 credit hours beyond a bachelor's degree or 21 hours beyond the DVM degree, including not more than six credit hours for the thesis. The plan of study is designed to meet the student's needs and interests and typically includes two credits of seminar, one course in statistics, and courses in molecular or cell biology and pathophysiology. The student must also pass a final oral examination covering the thesis and related course work.

The Doctor of Philosophy Degree

The PhD requires a minimum of 60 credit hours beyond the bachelor's degree or DVM degree, including up to 45 credit hours for research and dissertation. The plan of study is designed to meet the student's needs and interests and typically includes courses in cell and molecular biology, pathophysiology, statistics, and seminar. Written and oral qualifying examinations are required. Students must prepare a research proposal and complete and defend a dissertation based on original research.

Application Procedure

Applications are made to the Graduate College (http://gradcollege.okstate.edu/apply (http://gradcollege.okstate.edu/apply/)) and are accepted at any time; however, all documents should be received before March 15th for admission to the fall semester and August 15th for admission to the spring semester. Applicants are required to submit transcripts of all college-level work. International applicants are required to take an English proficiency exam, unless a student completed a baccalaureate or graduate degree from an accredited institution of higher learning at which English is the primary language of instruction, located in a country in which English is a recognized primary language. For students seeking graduate teaching assistantships, a score of 22 or greater on the speaking part of the internet-based TOEFL (ibT) or 7.0 on the speaking portion of the IELTS is required. In addition, the applicant will submit a statement of purpose stating their preparation for graduate study as well as how earning a graduate degree will further their educational and career goals and will have three persons knowledgeable of their preparation for graduate study write and submit letters of reference.

Information about faculty research interests is available upon request to the graduate coordinator (cbsc@okstate.edu (vbsc@okstate.edu)). After acceptance to the graduate program, students select a major professor and an advisory committee and develop a plan of study consistent with the CBSC graduate program requirements and subject to the approval of the dean of the Graduate College.

Assistantships

A limited number of graduate teaching and research assistantships are available.

Internship and Residency Programs

Internships and residency programs in clinical medicine and surgery are offered through the Department of Veterinary Clinical Sciences. Residency programs in pathology are offered through the Department of Veterinary Pathobiology.

Academic Areas

- Veterinary Clinical Sciences (p. 3333)
- Veterinary Pathobiology (p. 3335)
- Physiological Sciences (p. 3336)
- Degree Programs (p. 3337)

Graduate Programs

- Comparative Biomedical Sciences, MS (p. 3174)
- Comparative Biomedical Sciences, PhD (p. 2976)

Professional Programs

- Veterinary Medicine, DVM (p. 3338)

Veterinary Clinical Sciences

*Julia B. Montgomery, Med Vet, PhD, DACVIM (LAIM)—Professor and VCS Department Head

The Department of Veterinary Clinical Sciences (VCS) is one of three academic departments at the CVM. The Veterinary Clinical Sciences faculty are an integral part of the Boren Veterinary Medical Teaching Hospital. The faculty train veterinary students through didactic teaching and hands-on clinical training and provide the highest quality of care to clients and patients. In addition to training veterinary students, there are several residents and interns in various sections of the hospital who are guided by the VCS faculty.

Visit the Veterinary Medical Teaching Hospital webpage (https://cvhs.okstate.edu/veterinary-medical-hospital/) to learn more about the faculty and staff and the services they provide.

Internship and Residency Programs

The VCS department offers graduate professional programs (internships and residencies). Internships are one-year post-DVM clinical training programs.

Internships are designed in part to prepare DVM graduates for residencies or graduate academic programs. Currently, internships are offered in mixed animal rotating, equine internal medicine and surgery rotating, small animal emergency and critical care, small animal internal medicine, equine surgery & sports medicine, food animal medicine & surgery, shelter medicine and surgery, ophthalmology, theriogenology, and avian, exotics, and zoological medicine.

Residencies are three-year clinical programs in various disciplines designed in part to prepare for specialty board certification. Currently, residencies are offered in equine internal medicine, equine surgery, food animal medicine and surgery, ophthalmology, theriogenology, and avian, exotics, and zoological medicine.

Graduate academic programs may be available in association with residencies.

Application Procedure

Most open positions are listed in the Veterinary Internship/Residency Matching Program at www.virmp.org (http://www.virmp.org) and applications are submitted through the VIRMP. Some programs may be offered outside the match.

***Board Certification in Specialty Area**

Faculty

Regents Professor and Endowed Chairs: Kenneth Bartels, DVM, MS, and Cohn Family Chair for Animal Care (emeritus); *Joao Manuel Lemos Brandao, LMV, MS, DECZM, DACZM, and Deborah and Wayne Bell Professorship; *Daniel J. Burba, DVM, DACVS, and McCasland Endowed Chair; *Ana Costa, DVM, PhD, DACVIM and Tracy Kyle Chair; *Lyndi Gilliam, DVM, DACVIM, and Jack and June Jacobs Chair; G. Reed Holyoak, DVM, PhD, DACT, Regent's Professor and Bullock Professor; *Michael D. Lorenz, DVM, DACVIM, and Regents Service Professor (emeritus); Amanda Samuels, VMD, PhD, and McCasland Professorship; *Michael J. Schoonover, CVM, MS, DACVS, DACVCMR and Ricks-Rapp Professorship; *Lara Sypniewski, DVM, DABVP, and Henthorne Clinical Professorship
Professors: *Joseph Alexander, DVM, DACVS (President, CIED) (emeritus); *Kenneth Bartels, DVM, MS (emeritus); *Melanie Boileau, DVM, MS, DACVIM; *Joao Manuel Lemos Brandao, LMV, MS, DECZM, DACZM; *Daniel J. Burba, DVM, DACVS; *Lionel J. Dawson, BVSc, MS, DACT; *Lyndi Gilliam, DVM, DACVIM; *Margi A. Gilmour, DVM, MS, DACVO (emeritus); *G. Reed Holyoak, DVM, PhD, DACT; *John P. Hoover, DVM, MS, DACVIM, DABVP (emeritus); *Charles G. MacAllister, DVM, DACVIM (emeritus); *Julia B. Montgomery, Med Vet, PhD, DACCVIM (LAIM); *Mark Neer, DVM, DACVIM (emeritus); *Carlos Risco, DVM, DACT (emeritus); *Michael J. Schoonover, DVM, MS, DACVS, DACVSMR; *Richard Shawley, DVM, MS, DACVA (emeritus)
Associate Professors: *Robert J. Bahr, DVM, DACVR (emeritus); *Mary H. Bowles, DVM, DACVIM (emeritus); *John Kirkpatrick, DVM, DABVP (emeritus); Carolynn T. MacAllister, DVM (emeritus); *Gregor L. Morgan, MVSc, PhD, DACT (emeritus); *Megan Williams, DVM, DACVS
Assistant Professors: Gianluca Bini, DVM, MRCVS, DACVAA; Rosslyn Biggs, DVM; Giovana Catandi, DVM, PhD, DACT; Andreza Conti Patara, DVM, MS, PhD, DACVECC; Myriam Jimenez, DVM, MS, PhD; *Dale Kelley, DVM, MS, PhD, DACT; Shari Kennedy, DVM, DACVIM-LIAM; Arianna Negrin, DVM, PhD, MES, DECVN; Jenny Wyrick, DVM
Clinical Professors: *John Gilliam, DVM, MS, DAVBP, DACVIM; *Marjorie Gross, DVM, MS, DACVA (emeritus); *Robert Streeter, DVM, MS, DACVIM (emeritus); *Lara A. Sypniewski, DVM, DABVP
Clinical Associate Professors: Kimberly D. Carter, DVM; Ana Costa, DVM, PhD, DACVIM; *Paul DeMars, DVM, DABVP; Katrina Meinkoth, DVM (emeritus); Sarah Peakheart, DVM; Chase Whitfield, DVM, MS, DACVS-LA
Clinical Assistant Professors: David Bailey, DVM; Kelli Beavers, DVM; *Allison Biddick, DVM, MS, DACVECC; Brandy L. Close, PhD, MEd; Emilia Terradas Crespo, LV, MS, DACVESS; Leandro Fadel, DVM, MSc; Leticia Fanucchi, DVM, PhD; Taylor Farris, DVM; Katharine Hausmann Farris; DVM; Alexis Jennings, DVM; Dana Liska, DVM; Marco Magliacano, DVM; *A.J. Manship, DVM, DACVIM; *Emily McCool, DVM, MS, DACVO; Julianne McCready, DVM; Ariana Merari, DVM; M. Blake Murray, DVM; Franciele Panato Back, MV; Marcelo Rodrigues de Oliveira, MV; Brandon M. Raczkoski, PhD; Melissa Raymond, DVM; Amanda Samuels, VMD, PhD; Isabelle Soga, DVM; *Kelsey Walker, DVM, MS, CVA, DACVIM
Teaching Assistant Professors: Nancy Henslee, DVM; Kaitlin Mielnicki, DVM
Adjunct Associate Professors: *Drew Hanzlicek, DVM, DACVIM; *Cheryl Lopate, DVM, MS, DACT
Adjunct Assistant Professors: Jason Anton, DVM; *Kay Backues, DVM, DACZM; Derek Burney, DVM; *Brent Hague, DVM, DACVS; Gretchin Cole, DVM
Adjunct Clinical Instructors: Kyle Abbott, DVM; Chad Baumwart, DVM; Corynn Cackler, DVM; Laura Embry, DVM; Mika Ford, DVM; Ashley French, DVM; Beverly Fritzler, DVM; Kathy Graf, DVM; *Tiffany Granone, DVM, DACVAA; Mark Higgins, DVM; David Hille, DVM; Steven Hodges, DVM; Tracei Holder, DVM; Ron Hooley, DVM; Mike Jones, DVM; Lauren Lamb, DVM; Joseph Landers, DVM; Aimee Lenz, DVM; Kevin Long, DVM; Troy McNamara, DVM; Jarrod Roach, DVM; Angie Semple DVM; Mark Shackelford, DVM; Kerry Shafer-Ray, DVM; Andrew Willis, DVM
Lecturers: Daneeya Guthrie, DVM; David Wallace, DVM
Residents: Rebecca Abanto, DVM, Equine Medicine (2023-26); Greta Doden, DVM, Zoological Medicine (2024-2027); Amber Hampton, DVM, Theriogenology (2024-2027); Nicholas Lani, DVM, Equine Surgery (2023-26); Barbara da Silva Andrade, BA, Theriogenology (2025-2028); Madelaine Frendberg, DVM, Food Animal Internal Medicine (2025-2028); Martin Garces, DVM, Theriogenology (2025-2028); Chiara Morelli, DVM, Equine Internal Medicine (2025-2028); Sarah Winkler, DVM, Equine Surgery (2025-2028)
Interns: Sydney Barnes, DVM, SA IM and ECC; Donovan David, DVM, Equine Medicine and Surgery; Taylor Fidler-Jarzyiecki, DVM, Zoological Medicine; Usman Khalid, DVM, Mixed Animal Rotating; Cheyenne

Schmidt, DVM, Equine Medicine and Surgery; Taylor Sommer-Kohrt, DVM, Mixed Animal Rotating; Ernest Yeu, DVM, SA IM and ECC

***Board Certification in Specialty Area**

Veterinary Pathobiology

Theresa E. Rizzi, DVM, DACVP—Clinical Professor and Department Head

The Department of Veterinary Pathobiology delivers state-of-the-art research, instruction, and diagnostic service for the disciplines of bacteriology, mycology, virology, immunology, parasitology, pathology, epidemiology and public health. The Pathobiology Department is the proud home of the National Center for Veterinary Parasitology, and the academic home of the Director and faculty of the Oklahoma Animal Disease Diagnostic Laboratory. Departmental faculty participate in research sponsored by the NIH, USDA, and other government-sponsored research units as well as private industry focused on infectious diseases important in animals and people. The department is actively engaged in training the next generation of veterinarians, veterinary specialists, and scientists, publishing basic and applied scientific works and presenting findings at scientific and educational platforms throughout the world.

Residency Programs

Residency Coordinators: Dr. Valerie McElliott, Anatomic Pathology, and Dr. James H. Meinkoth, Clinical Pathology

Residency programs in anatomic and clinical veterinary pathology are offered. Candidates must have a DVM or equivalent degree. The anatomic and clinical pathology residency programs are three years with options to enter the PhD program. The programs are designed for those interested in diagnostic veterinary pathology and board certification by the American College of Veterinary Pathologists. Residency training occurs through the Veterinary Medical Teaching Hospital and the Oklahoma Animal Disease Diagnostic Laboratory. The program involves extensive diagnostic casework primarily of domestic animals and includes weekly case conferences and seminars. In addition, abundant archived materials are available for the specialty board preparation.

Application Procedure

Usually, one new residency training position is available each year in anatomic pathology and one new residency position every 1-2 years in clinical pathology. Open positions are listed at the ACVP website (https://www.acvp.org/).

Faculty

Regents Professors and Endowed Chairs: Clinton J. Jones, PhD, Regents Professor and Sitlington Endowed Chair
Professors: *James H. Meinkoth, DVM, PhD, DACVP; *Akhilesh Ramachandran, BVSc & AH, PhD, DACV; *Jared Taylor, DVM, MPH, PhD, DACVIM, DACVPM
Clinical Professor: *Theresa Rizzi, DVM, DACVP
Associate Professors: *Fernando Vicosa Bauermann, DVM, PhD, and Sitlington Endowed Chair in Veterinary Medicine; Rudragouda Channappanavar, DVM, MVSc, PhD; Tom Oomens, PhD; Joy Scaria, PhD, Associate Professor and Sitlington Endowed Chair in Infectious Disease; *Lindsay Starkey, DVM, PhD, DACVP
Clinical Associate Professor: *Susan E. Fielder, DVM, MS, DACVP
Assistant Professors: *Kathryn Duncan, DVM, PHD, DACVM-P; Kelly Harrison, PhD; Jeff Ostler, PhD; Mayara Maggioli, DVM, PhD; *Sunil More BVSc & AH, MVSc, PhD; Jeff Ostler, PhD; *Jennifer Rudd, DVM, PhD, DACVM; *Ruth C. Scimeca, BVSc, MS, PhD, DAVM-P
Clinical Assistant Professor: *Alexandra Ford, DVM, DACVP; *Valerie McElliott, DVM, PhD, DACVP; *Brianne Taylor, DVM, MS, DACVP
Assistant Research Professor: Fouad Elmayet, PhD
Residents: Kelsey Duensing, DVM; Hailey Furman, DVM; Sarah Myers, DVM; *Daniel Barrantes Murillo, DVM, DACVP; Sai Narayanan, BVSc & AH, MVSc, PhD; Garija Regmi, BVSc, PhD; Adriana Villasenor, DVM; Erin Willis, DVM, PhD
Graduate Teaching Associates: Sree Varsha Kuduvaa Sankar Babu, MS; Patil Basavaraju, BVSc; Lariane de Silva Barcelso, PhD; Ryan Carson, DVM/MS; Debarai Chanda, PhD; Amal Cheemadan, PhD; Roshan Ghimire, PhD; Sachithra Gunasekara, BS; Sankha Hewawasam, PhD; Tanim Islam, PhD; Kaushalya Jayathilake, PhD; Paige Johnson, DVM; Chiranjeevi Mishra, MS; Shalabh Mishra, PhD; *Daniel Barrantes Murillo, DVM, DACVP, PhD/ PhD Resident; Jeeviya Murugesan, BVSc, PhD; Sarah Myers, PhD/ Resident; Hafez Sadeghi, PhD; Shoroq Shatnawi, PhD; Rakshya Shrestha, PhD; Rachel Smith, PhD; Vishnu Thyil Valappil, PhD; Binta Varghese, PhD; Jonna Whetsel, PhD; Cody Whitley, PhD
Graduate Research Associate: Rakshya Shrestha, PhD

***Board Certification in Specialty Area**

Physiological Sciences

Jefferson Frisbee, Ph.D. FAHA, FAPS—Department Head

The Department of Physiological Sciences at Oklahoma State University contributes substantially to the teaching, research and service components of the College of Veterinary Medicine.

The department currently has 18 tenure/tenure-track, one adjunct and four research track faculty members, six postdoctoral fellows and approximately 28 graduate students.

Teaching responsibilities within the department include the areas of veterinary morphology, physiology, pharmacology and toxicology, providing professional coursework leading to the DVM degree and graduate coursework leading to the Masters and Doctor of Philosophy degrees. Departmental faculty have a wide range of research interests including neurotoxicology, lung biology, enzymology of drug metabolism, exercise physiology, reproductive physiology, therapeutics, comparative aging, and cardiovascular physiology. Extramural funding in support of research from agencies including NIH, DoD, USDA, American Cancer Society and others totals over $2 million annually.

Faculty

Jefferson Frisbee, PhD, FAHA, FAPS—Professor, Department Head
Regents Professors: Lin Liu, BS, PhD (Lundberg-Kienlen Professor of Biomedical Research); Carey N. Pope, PhD (Sitlington Chair in Toxicology) (emeritus)
Professors: Pratul Agarwal, PhD; Natarajan Aravindan, MS, MPhil, PhD, CCA; Nicholas L. Cross, PhD (emeritus); *Michael S. Davis, DVM, MS, PhD (Oxley Chair in Equine Sports Medicine); Martin Furr, DVM, Diplomate ACVIM, PhD; Veronique Lacombe, DVM, PhD, Diplomate ACVIM, Diplomate ECEIM; Jerry R. Malayer, PhD; Lara K. Maxwell, DVM, PhD; Charlotte L. Ownby, MS, PhD (emeritus); Alastair G. Watson, BVSc, PhD (emeritus)
Associate Professors: Jill Akkerman, DVM, PhD; Guangping Chen, MS, PhD; Henrique Cheng, DVM, MS, PhD; Myron Hinsdale, DVM, PhD; Sudahkar Jha, PS, MS, PhD; James W. Lish, MS, PhD (emeritus); Joseph P. McCann, PhD (emeritus); *Sandra E. Morgan, MS, DVM (emeritus); Larry E. Stein, PhD (emeritus); Madhan Subramanian, BVSc, PhD
Assistant Professors: Joshua Butcher, M.S., PhD; Xufang Deng, BS, MS, PhD; Neeraj Singh, BVSc, MVSc, PhD
Teaching Associate Professor: Deon van der Merwe, BVSc, MSc, PhD, ERT
Teaching Assistant Professor: Girish Patil, PhD
Research Associate Professor: Chaoqun Huang, MD, PhD
Research Assistant Professors: Yurong Liang, BS, PhD; Danny Maples, PhD; Kishore Vaddadi, PhD
Post-Doctoral Fellows: Firoz Ahmad, PhD; Benny Borin, PhD; Yosodha Kesavan, PhD, Ranabir Majumder, PhD; Loganayaki Periyasamy, PhD
Graduate Research Associates: Kainat Ahmed, BVSc, MVSc; Mohammad Asad, PhD; Xiang Chi, PhD; Quanjin Dang, BS; Mozafar Hajijafarianaraki, PhD; Nazmul Haque, PhD; Afsana Parveen Jahir Hussain, PhD; Prince Jhandai, PhD; Xueying Liang, PhD; Sreenidhi Mohanvelu, PhD; Dharanya Muthiah, PhD; Diani Nanayakkara, PhD; Sivasubramani Narayanan, PhD; Emily Nunan, BS; Nikhithasree Pullagura PhD; Sabir Salim, PhD; Danya Sankaranarayanan, PhD; Keerthana Santhosh, PhD; Adam Soriano, PhD; Yashaswi Raj Subedi, MS; Poorvi Subramanian, PhD; Akshaya Surendran, PhD; Gokul Tamilselvan, PhD; Elizabeth Varghese, PhD; UdayKiran Venugopal, PhD; Qianru Zhang, PhD; Xiaoming Zhang, PhD
Staff: Erin Langford-Loftis, BS; Christopher H. Pivinski, BS; Lana Schler, BS; Jessica Schultz, BS, MS; Kerrie Williams, AS

***Board Certification in Specialty Area**

Degree Programs

Graduate Programs

- Comparative Biomedical Sciences, MS (https://catalogadmin.okstate.edu/graduate-college/masters-degrees/comparative-biomedical-sciences-ms/)
- Comparative Biomedical Sciences, PhD (p. 2976)

Professional Programs

- Veterinary Medicine, DVM (p. 3338)

Veterinary Medicine, DVM

Total Hours: 165

Year One

Code	Title	Hours
Degree Requirements		
Fall Semester		
VME 7111	Critical Thinking, Clinical Skills, & Communication I	1
VME 7121	Professional Skills I	1
VME 7136	Veterinary Physiology & Histology I	6
VME 7144	Gross & Developmental Anatomy	4
VME 7153	Veterinary Immunology	3
VME 7161	Epidemiology & Evidence-Based Medicine	1
VME 7171	Nutrition	1
Hours Subtotal		**17**
Spring Semester		
VME 7211	Critical Thinking, Clinical Skills, & Communication II	1
VME 7221	Professional Skills II	1
VME 7236	Veterinary Physiology & Histology II	6
VME 7243	Comparative Anatomy	3
VME 7253	Clinical Pathology	3
VME 7264	General Pathology	4
Hours Subtotal		**18**
Total Hours		**35**

Year Two

Code	Title	Hours
Degree Requirements		
Fall Semester		
VME 7312	Critical Thinking, Clinical, Skills, & Communication III	2
VME 7325	Veterinary Parasitology	5
VME 7333	Pharmacology I	3
VME 7343	Diagnostic Imaging	3
VME 7353	Veterinary Virology	3
VME 7363	Toxicology	3
Select 2 hours of electives.		2
Hours Subtotal		**21**
Spring Semester		
VME 7412	Critical Thinking, Clinical Skills, & Communication IV	2
VME 7421	Professional Skills III	1
VME 7433	Food Safety & Public Health	3
VME 7444	Veterinary Bacteriology & Mycology	4
VME 7452	Pharmacology II	2
VME 7463	Anesthesiology & Analgesia	3
VME 7472	Hemolymphatics & Oncology	2
VME 7481	Introduction to Exotic Animal Medicine	1
Select 2 hours of electives.		2
Hours Subtotal		**20**
Total Hours		**41**

Year Three

Code	Title	Hours
Degree Requirements		
Fall Semester		
VME 7512	Critical Thinking, Clinical Skills, & Communication V	2
VME 7522	Junior Surgery I	2
VME 7533	Musculoskeletal	3
VME 7543	Theriogenology	3
VME 7552	Veterinary Endocrinology	2
VME 7564	Cardiopulmonary	4
VME 7572	Primary Care I	2
Select 2 hours of electives.		2
Hours Subtotal		**20**
Spring Semester		
VME 7612	Critical Thinking, Clinical Skills, & Communication VI	2
VME 7621	Professional Skills IV	1
VME 7631	Junior Surgery II	1
VME 7644	Alimentary	4
VME 7652	Ophthalmology	2
VME 7662	Urinary	2
VME 7672	Neurology	2
VME 7682	Primary Care II	2
VME 7692	Dermatology	2
Select 1 hour of elective.		1
Hours Subtotal		**19**
Total Hours		**39**

Year Four

CORE ROTATIONS

Code	Title	Hours
Rotations - 16 Rotations [3]		
VCS 7002	Anesthesiology I	2
VCS 7072	Diagnostics I	2
VCS 7082	Equine Medicine I	2
VCS 7142	Externship I	2
VCS 7152	Externship II	2
VCS 7162	Externship III	2
VCS 7172	Externship IV	2
VCS 7222	Food Animal Medicine and Surgery I	2
VCS 7342	Ophthalmology II	2
VCS 7372	Radiology I	2
VCS 7442	Surgical Fundamentals in Shelter Patients I	2
VCS 7612	Small Animal General Medicine	2
VCS 7622	Small Animal General Surgery	2
VCS 7632	Emergency & Critical Care	2
VCS 7662	Large Animal Emergency & Critical Care	2
VCS 7912	Grand Rounds	2

16 Rotations	
Total Hours	**32**

ELECTIVE ROTATIONS

Code	Title	Hours
Select 9 rotations from the following:		
VCS 7000	Clinical Sciences Elective III	
VCS 7052	Small Animal Wellness & Disease Prevention Clerkship Elective	
VCS 7092	Equine Medicine II	
VCS 7112	Equine Performance Medicine III	
VCS 7122	Equine Surgery and Sports Medicine II	
VCS 7182	Externship V	
VCS 7192	Externship VI	
VCS 7202	Field Services and Production Medicine II	
VCS 7232	Food Animal Medicine and Surgery II	
VCS 7252	Hospital Based Theriogenology II	
VCS 7292	Large Animal Bovine Theriogenology III	
VCS 7302	Large Animal Equine Theriogenology III	
VCS 7312	Large Animal Theriogenology II-A	
VCS 7322	Large Animal Theriogenology II-B	
VCS 7362	Professional Development Experience III	
VCS 7452	Ultrasound Elective	
VCS 7472	Zoological Medicine II	
VCS 7482	Zoological Medicine III	
VCS 7492	Applied Canine Exercise Physiology Elective III	
VCS 7502	Small Animal Internal Medicine Clerkship Elective	
VCS 7532	Applied Diagnostic Medicine and Laboratory Investigations III	
VCS 7542	Emergency and Critical Care Clerkship Elective	
VCS 7552	Public Health Practice for Veterinarians III-A	
VCS 7562	Public Health Practice for Veterinarians III - B	
VCS 7582	Externship VII	
VCS 7592	Behavior Medicine Elective	
VCS 7602	Dermatology Elective	
VCS 7642	Small Animal General Medicine Clerkship Elective	
VCS 7652	Small Animal General Surgery Clerkship Elective	
Or additional approved VCS Courses		
Hours Subtotal		**18**
Total Hours		**18**

1

Program meets all the educational requirements for eligibility for DVM licensure in all 50 states.

For additional requirements, please refer to the College of Veterinary Medicine page (p. 3330) in the Catalog.

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Sociology: Criminology and Criminal Justice, BS ... 1903
Sociology: Environment and Society, BA ... 1906
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